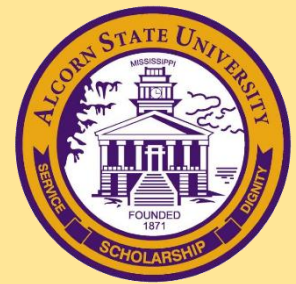


ALCORN STATE UNIVERSITY

Lorman, Mississippi



Serving the People Since 1871”



2020-2021 GENERAL CATALOG

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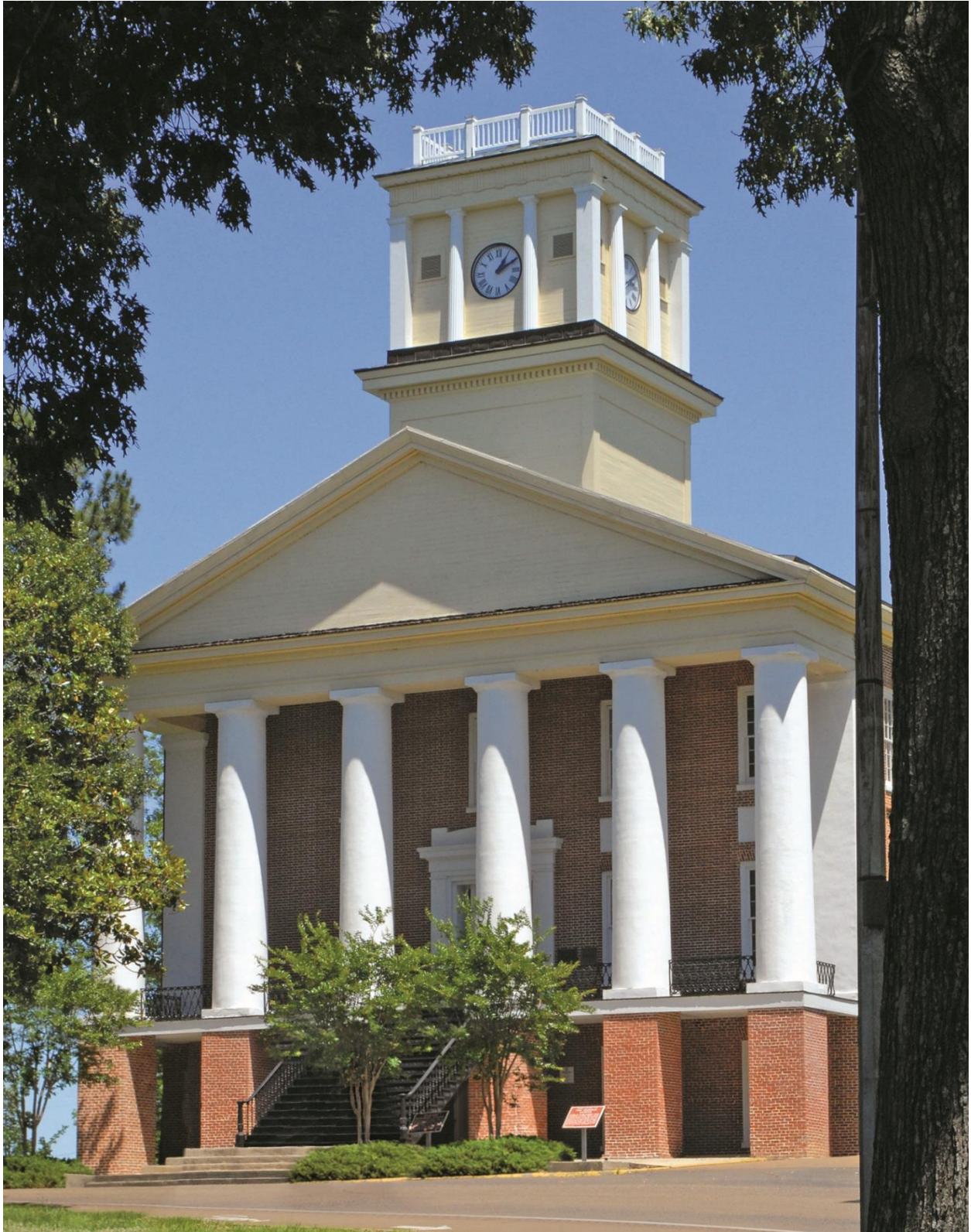
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-NOTES-



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Alcorn State University
SPRING 2020 ACADEMIC CALENDAR

JANUARY	<p>2-3 ACT Residual Placement Test (Over 21 8:30 a.m.)</p> <p>6-8</p> <p>2 Registration at Vicksburg (3:00 – 6:30 p.m.)</p> <p>3 Registration at Natchez (9:30 a.m.)</p> <p>6 Registration on Main Campus (9:00 a.m.) Residence Halls Open to Freshmen Residence Halls Open to all Students</p> <p>7 Freshmen Orientation CLASSES BEGIN</p> <p>10 Last Day to Drop/Add Classes Without Penalty Last Day for Adding New Classes Last Day to Register for Classes</p> <p>15 Remission of Fee Forms Due in the Business Office</p> <p>20 DR. MARTIN LUTHER KING, JR. HOLIDAY (University Closed)</p> <p>24 Last Day for Submitting Application for Degree - \$50 Fee (Spring 2020 Graduation) Last Day to Drop a Class Without a Grade</p> <p>27 Classes Purged for Non-payment</p>
MARCH	<p>2-6 Mid-Semester Examinations</p> <p>9 Posting of Grades Due in BANNER by 12 Noon</p> <p>9-13 Spring Break for Students (No Classes)</p> <p>16 Last Day to Submit Application for Degree (May 2020 Graduation) \$100 Fee by any Means CLASSES RESUME</p> <p>20 Last Day to Drop a Class by Any Means; End WP/WF</p> <p>23 Registration for Summer Session I Begins</p> <p>25 Honors Day Convocation (10:00 a.m.)</p>
APRIL	<p>10 Last Day to Officially Withdraw from the University</p> <p>20-23 Final Examinations for Graduating Seniors and Graduate Students</p> <p>24 Posting of Grades for Graduating Seniors and Graduate Students in BANNER by 12 Noon</p> <p>27-30 Final Examinations for Undergraduate Students</p>
MAY	<p>2 Residence Halls Close</p> <p>2 SPRING COMMENCEMENT (8:30 a.m.)</p> <p>4 Posting of Grades Due in BANNER by 12 Noon Semester Ends</p> <p>11-15 ACT Residual Placement Test (Over 21 8:30 a.m.)</p>

****ALL DATES ARE SUBJECT TO CHANGE

Alcorn State University
FALL 2020 ACADEMIC CALENDAR

AUGUST	3	Regular Registration Continues
	3 - 7	Leadership Meeting Faculty & Staff Institute/School Meetings
	5	Last Day for Remission of Fee Forms for Fall Semester
	11	Residence Halls Open to Freshmen
	12 - 14	New Freshmen and Transfer Orientation (See Schedule) ACT Residual Test
	14	Residence Halls Open (All Students – See Move-In Schedule)
	17	Classes Begin Late Registration Begins
		Last Day to Drop Class and Receive Tuition Refund
	21	Last Day to Drop Class without a Grade Late Registration Ends: Last Day to Add Classes
	SEPTEMBER	1
7		Labor Day Holiday (University Closed)
9		Students Removed from Classes due to Non-attendance
11		Deadline to Submit Application for Degree for Spring 2021 (\$50 Fee)
14		Late Application for Degree for Spring 2021 (\$100 Fee)
18		Last Day to Drop Class without Grade
21		Drop Class with Grade of WP/WF in Effect
24		Founder’s Day Convocation (Virtual)
OCTOBER	5 - 9	Mid-Semester Examinations
	2	Mid-Semester Grades Recorded in BANNER by Faculty - 12 Noon
	12	Pre-Registration Begins for Spring 2021
NOVEMBER	13	Last Day to Withdraw from a Course
	13	Last Day to Withdraw from the University
	13	Last Day to Submit Late Application for Degree (\$100 Fee)
	25	Residence Halls Close at 2:00 PM
	25-27	Thanksgiving Holiday
	30	Review Day
DECEMBER	1	Review Day
	2 - 4	Final Examinations
	11	Final Grades Due in BANNER and Course Assessments - 5:00 pm
	TBA	Commencement

****Dates are subject to change**

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PROFESSOR EMERITI

ALEXANDER ACHOLONU
Professor Emeritus of Biology

PRENTISS K. ALFORD
Professor Emeritus of Mathematics

ELLA ANDERSON
Professor Emeritus of Business

JOYCE J. BOLDEN
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PAUL A. BROOME
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ROBERT M. BUTLER
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BERNARD COTTON
Professor Emeritus of Political Science

DAVID CROSBY
Professor Emeritus of Communication

ABRAM H. DUNBAR JR.
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NORRIS ALLEN EDNEY SR.
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Professor of Education

ALICE POWELL
Professor Emeritus of Biology

NOEL SCHRAUFNAGEL
Professor Emeritus of English

TROY J. STEWART
Professor Emeritus of Chemistry

MALVIN A. WILLIAMS SR.
Vice President Emeritus

M. SAWAR ZAMAN
Professor Emeritus of Biology

GENERAL INFORMATION

Alcorn State University was created by an act of the Mississippi State Legislature on May 13, 1871. First named Alcorn University of Mississippi in honor of James L. Alcorn, who was then governor of the state of Mississippi, the institution was heralded as a “seminary of learning.”

The institution has a rich and illustrious history. It is located on the site of the former Oakland College, a Presbyterian school for the education of white males. Oakland College closed its doors at the beginning of the Civil War so that its students might answer the “call to arms.” Upon failing to reopen after the war, the state purchased the college for the education of its “Negro citizens.” The Honorable Hiram R. Revels, the first black man to serve in the United States Senate, resigned his seat in the U.S. Senate in 1871 to become the first president of the newly established institution.

The university was given \$50,000 per year for 10 years (the same as the University of Mississippi). Alcorn State University also received three-fifths of the proceeds from the sale of agricultural scrip under the provisions of the First Morrill-Land Grant Act of 1862. According to the *1872 Alcorn University Catalog*, “the fund amounted to \$189,000, three-fifths of which, or \$113,400, became the property of Alcorn University, the income from which is to be devoted to the agricultural and mechanical department of the institution.” Thus, from its beginning, Alcorn State University has been a land-grant institution.

In 1878, the Mississippi State Legislature changed the name of the institution to Alcorn Agricultural and Mechanical College with the enactment of the following legislation:

LAWS OF MISSISSIPPI

Chapter XIX, SECTION 1. Be it enacted by the Legislature of the State of Mississippi, that the institution known as Alcorn University is hereby established as, and declared to be, an agricultural college for the education of the Negro youth of the State and to be hereafter known as the Alcorn Agricultural and Mechanical College of the State of Mississippi.

SECTION 9. Be it further enacted, that each of said Boards of Trustees shall possess all the power necessary and proper for the accomplishment of the trusts reposed in them viz.: The establishment and maintenance of a first class institution at which the youth of the State of Mississippi may acquire a common school education and a scientific and practical knowledge of agriculture, horticulture, and the mechanical arts, also in the proper growth and care of stock, without, however, excluding scientific and classical studies, including military tactics.

Alcorn State University’s land-grant status was re-affirmed in 1890, when the state of Mississippi accepted provisions of the 1890 Morrill Act specifically providing for the establishment of separate land-grant institutions of higher education. Hence, although created under the 1862 Morrill Act, Alcorn State University is often referred to as an 1890 land-grant institution.

Recognizing the tremendous growth and impact of the institution during its more than one century of existence, the Mississippi State Legislature changed the name of the institution to Alcorn State University in 1974.

Today, Alcorn State University is an equal opportunity institution. It admits students without regard to age, race, creed, color, national origin, religion, gender, or physical disabilities. The institution is both international and cosmopolitan. It has attracted students from 82 counties in the state of Mississippi, 42 states, and 18 foreign countries.

ASSURANCE OF COMPLIANCE

On January 23, 1965, the president of the University signed, with the approval of the Board of Trustees of Institutions of Higher Learning of the State of Mississippi the “Assurance of Compliance with the Department of Health, Education, and Welfare Regulation under Title VI of the Civil Rights Act of 1964.”

The following statement indicates the commitment of the University: “Alcorn State University HEREBY AGREES THAT it will comply with Title VI of the Civil Rights Act of 1964 (P.L. 88-352) and all requirements imposed by or pursuant to the Regulation of the Department of Health, Education, and Welfare (45 CFR Part 80) issued pursuant to that title, to the end that, in accordance with Title VI of the Act and the regulations, no person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity for which the Applicant receives Federal financial assistance from the Department, and HEREBY GIVES ASSURANCE THAT it will immediately take any measures necessary to effectuate this agreement.”

DRUG-FREE WORKPLACE POLICY

It is the policy of Alcorn State University to maintain a drug-free workplace, workforce, and campus consistent with federal laws as set forth in the Drug-Free Workplace Act of 1988 and the Department of Defense Drug-Free Workforce Rule of 1988 and the Drug-Free Schools and Communities Act Amendments of 1989. The university acknowledges and supports the laws of the State of Mississippi code of 1972 (1988 supp.) that prohibit the sale, distribution, manufacturing, possession or use of controlled substances in the state.

MISSION

Alcorn State University, an historically Black College and University, is a comprehensive land-grant institution that celebrates a rich heritage with a diverse student and faculty population. The University emphasizes intellectual development and lifelong learning through the integration of diverse pedagogies, applied and basic research, cultural and professional programs, public service and outreach while providing access to globally competitive academic and research programs. Alcorn strives to prepare graduates who will be well-rounded future leaders of high character who will be competitive in the global marketplace of the 21st century.

VISION

Alcorn State University will become the premier comprehensive land-grant University that develops diverse students into globally-competitive leaders and applies scientific research through collaborative partnerships, which benefit the surrounding communities, state, nation and world.

UNIVERSITY GOALS

Student-centered: Continue to offer students an engaging, transformative learning and living environment, empowering them to become globally competitive, socially and environmentally sensitive, and technologically competent leaders.

Academic Excellence: Consistently enhance its academic excellence and become nationally recognized as a premier comprehensive land grant University offering engaging intellectual experiences and collaborative research opportunities.

Shared Governance and Professionalism: Assess its processes to ensure that honest and transparent communications, merit-based systems, and accountability prevail.

Enhancement of Infrastructure and Technology: Develop and implement a strategy to ensure that the technology and infrastructure exist to achieve the University’s vision and mission.

Enhancement and Diversification of Resources: Enhance its resources and diversify the sources of funding through partnerships, creative fundraising strategies, leveraging its intellectual property, and entrepreneurship.

Diversity: Engage all stakeholders in developing an environment which embraces diversity of thought and encourages the acceptance of differences.

Community Outreach and Engagement: Strengthen its community outreach and engagement efforts by encouraging continuing education, expanding community partnerships, and developing new service and outreach programs.

CORE VALUES

Student-Centered: Our students are our greatest assets. We value every student. We encourage leadership development by mentoring our students and enabling them to participate in our decision-making processes.

Academic Excellence: We uphold the highest, rigorous academic standards. We expect excellent scholarship, preparation, and performance from every student and faculty member.

Shared Governance: The University provides an open and honest environment. Communications are thorough, truthful and present all of the facts. We value transparency in decision-making and communications. We encourage every stakeholder to be aware of our opportunities, challenges, and resources. Policies are merit-based, fair, and broadly communicated.

Professionalism: Everyone accepts full responsibility for personal performance and actions, maintains high moral standards, and complies with effective performance appraisal processes. We expect honesty, objectivity, and fairness in all transactions among our stakeholders. We pride ourselves on our strong commitment to a rigorous work ethic.

Diversity: We value the global nature of our society. Everyone is respected. We promote diversity of thought and encourage the acceptance of cultural diversity. We believe that diversity stimulates a dynamic intellectual environment, creativity, and innovation. We believe that everyone has something to offer.

Outreach, Engagement, and Community Service: We are committed to improving communities, locally and globally. We encourage students, faculty, and staff to apply their knowledge to build stronger, healthier, economically viable communities.

Institutional Pride: We treasure our legacy, our commitment to excellence, our development of leaders, and our service to others. These attributes imbue us with great pride in Alcorn State University.

We respect the assets and resources of our University and use them prudently. We provide our students, faculty, and staff with the necessary infrastructure and technology to succeed while maintaining a safe, secure, and nurturing environment.

GEOGRAPHIC REGION SERVED

Alcorn State University is located in southwest Mississippi. The University, therefore, considers that region as its primary service area; however, it serves students from throughout the state of Mississippi, other states, and foreign countries.

In its research and extension land-grant functions, the University seeks to provide programs and services to limited-resource individuals throughout the state of Mississippi.

ACCREDITATION AND AFFILIATIONS

Alcorn State University is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award the associate, baccalaureate, master's, education specialist and doctorate degrees. Contact the Southern Association of Colleges and Schools Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4500 for questions about the accreditation of Alcorn State University.

Alcorn is **ACCREDITED** by the following:

- Accreditation Commission for Education in Nursing (ACEN)
- Accreditation Council for Business Schools and Programs (ACBSP)
- Association of Technology, Management, and Applied Engineering (ATMAE)
- Council for the Accreditation of Educator Preparation (CAEP)
- Council on Social Work Education (CSWE)
- National Association of Schools of Music (NASM)

The University also holds **MEMBERSHIP** in the following organizations:

- American Association of Colleges for Teacher Education (AACTE)
- American Association of Colleges of Nursing
- American Council on Education (ACE)
- American Library Association (ALA)
- American Public Relations Association
- Association of Departments of English (ADE)
- Association of Institutional Research (AIR)
- Association of Public and Land-Grant Universities (APLU)
- Association of State Colleges and Universities (AACU)
- College Language Association (CLA)
- Council for the Advancement and Support of Education (CASE)
- Council on Co-op College Projects
- Family Consumer Sciences Education Association (FCSEA)
- Mathematical Association of America (MAA)
- National Association of College and University Business Officers (NACUBO)
- National Association of Dramatic and Speech Arts
- National Association of Schools of Music (NASM)
- National Association of State Universities and Land Grant Colleges (NASULGC)
- National Collegiate Athletic Association (NCAA)
- National Collegiate Honors Council (NCHC)
- National Commission on Accrediting
- National League for Nursing
- Organization for Associate Degree Nursing
- Southern Association of College and University Business Officers (SACUBO)
- Southern Association of Collegiate Registrars and Admission Council (SACRAO)
- Southern Regional Education Board, Council on Collegiate Education for Nursing
- Southern Regional Honors Council (SRHC)

THE ALUMNI ASSOCIATION

Organized in 1890 and incorporated in 1952, the Alcorn State University National Alumni Association is dedicated to building a significant program of alumni interest and support aimed at the enrichment of the university's total mission.

Alcorn State University has awarded more than 20,000 degrees since it opened in 1871. Alumni have distinguished themselves in business, industry, government, education, public, and foreign services. Those who have been a part of the campus share a unique common bond of friendship and an unending dedication and respect for all that the University is and represents. It was upon this foundation that the association was founded under the leadership of Dr. A. D. Snodgrass, its first president and member of the first graduating class, 1882.

Through the years the association has operated to promote the ideals of the University, translate its objectives into terms which the public can understand and appreciate, uphold its ideals of scholarship, encourage the best students to seek opportunities for admission through scholarship grants it establishes, and support the programs of the University as the needs of the institution are promulgated by the administration charged with its destiny.

Alumni chapters throughout Mississippi and the nation represent the association. All former students and graduates of the University are eligible for membership in the Alumni Association. Any group of five graduates and/or former students of the University may organize a local chapter and petition the Executive Secretary for a charter, a copy of the constitution, and other necessary information. Presently, annual dues in the association are fifty dollars.

The many alumni-sponsored fund raising projects are indicative of the association's commitment to higher education and to Alcorn State University.

Most noteworthy are the Alumni Athletic Supplement Fund, the Revolving Student Loan Fund, alumni departmental scholarships in English and agriculture, and the Alumni Centennial Fund (\$100,000.00 birthday gift from the alumni to the University). In addition, local Alcorn Alumni Chapters provide academic scholarships for students exhibiting talents far beyond the mediocre and commonplace.

Although the many local chapters hold weekly and monthly meetings, the National Association holds but two meetings yearly: The Mid-Winter Business meeting in February and the General Meeting in May, the latter being held on campus. National officers are elected to serve a two-year term.

They are president, executive secretary, first and second vice president, recording secretary, treasurer, corresponding secretary, field representative, chaplain, and parliamentarian. Together, these officers make up the executive board of the association. The Director of Alumni Affairs also serves on this board.

LOCATION AND MEANS OF ACCESS

The University is situated at Alcorn State in Claiborne County, Mississippi, five miles west of Lorman, twelve miles southwest of Port Gibson, and forty miles south of Vicksburg, Mississippi. State Highway 552 forks off from U.S. Highway 61 one-mile north of Lorman, Mississippi, and leads directly to the campus.

Regularly scheduled airlines provide service to the following local airport:

Location of Airport	Distance	Airlines
Jackson, Mississippi	90 miles	American, Delta and U.S. Airways

UNIVERSITY PRESS OF MISSISSIPPI

The University Press of Mississippi was founded in 1970 to encourage the dissemination of research and study through the publication of scholarly works. Functioning as the scholarly publishing arm of the state-supported universities in Mississippi, the University Press is governed by a Board of Directors made up of two representatives from each of the eight state universities, one representative from the Board of Trustees of State Institutions of Higher Learning, and the Director of the Press. The University Press publishes a limited number of books each year. Primary areas of interest are Mississippi history and literature, but manuscripts in all areas of study are welcomed. Administrative offices of the University Press are located at 3825 Ridgewood Road, Jackson, Mississippi.

SPECIAL PROGRAMS AND FACILITIES FOR TEACHING, RESEARCH, AND SERVICE

Institutional Aid Program: Since 1967, Alcorn State University has received funds under Title III of the Higher Education Act of 1965, as amended, to assist the University in strengthening its academic, administrative, student affairs, and financial management programs. The Title III Program operates under the auspices of the Institutional Aid Programs of the United States Department of Education.

The goal of the Title III Program at Alcorn is to support and enhance the institution's development and progress toward its stated mission and goals through the funding of projects in areas deemed critical and most in need of external financial assistance by University officials. Alcorn has benefited greatly from Title III support in: 1) administrative and fiscal improvement; 2) student services improvement; 3) curriculum development; and 4) faculty development. Through the support of Title III, the University has established three 20-year endowment programs. These programs enhance the long-term fiscal stability of the University.

Experiment Station: The Alcorn State University Agricultural Experiment Station conducts a research program designed to discover new knowledge and to provide for better utilization of existing knowledge for the betterment of humanity. Although not limited to this scope, the thrust of the station is to seek answers to the problems of limited-resource rural people of southwest Mississippi.

Cooperative Education Program: Cooperative education is a professional development training program that allows students to incorporate classroom activities with practical on-the-job experiences. The program is a joint venture between employers and the University which allows students to alternate periods of off-campus work and on-campus study as part of their academic program. Students obtain financial remuneration during their work periods and may also earn academic credit.

The off-campus employment must be closely related and contribute significantly to the student's career goals. Cooperative Education is inter-departmental, and it is optional to students majoring in all departments. The purposes of the program are:

1. To provide students opportunities to integrate theoretical classroom instruction with practical application on the job so that learning may become more meaningful and relevant to the world of work.
2. To permit students to explore their career interests and test their occupational commitments.
3. To allow the University to extend classroom and laboratory facilities through the utilization of sophisticated facilities, equipment, and expertise in business, industry, and government agencies.
4. To provide students with opportunities to develop human relations skills, especially in the industrial environment.
5. To provide students with a source of income to support their education and to meet other financial obligations.

Cooperative Extension Program: The Cooperative Extension Program of Alcorn State University conducts a continuing education program designed to meet the needs of small farms, disadvantaged and limited resource people in the state with its major thrust being in southwest Mississippi. The major program areas include agriculture and natural resources, family and consumer sciences, communities in transition, and 4-H youth development.

The program works closely with a broad spectrum of the research and academic staff and makes use of research findings in order to make the latest and most reliable information available to its clientele.

Small Farm Development Center: The Small Farm Development Center was established by an Act of the State Legislature in 1988 and funded in 1993 to provide management and technical assistance to small-scale, limited-resource farmers and agribusinesses utilizing the resources of local, state, and federal government programs, various segments of the private sector, and universities and colleges throughout the state.

The center also conducts applied research, develops business opportunities for small farmers, collects and disseminates agricultural information and data, develops markets and marketing strategies and explores opportunities for international trade. The center collaborates with other relevant units at Alcorn State University in its efforts to implement its mission successfully.

Student Support Services: The Student Support Services Program is designed to seek and assist a target population of students (low income students, first generation students, and students with disabilities) who have academic potential but lack adequate secondary school preparation for success in a college or University.

The goal of this program is to increase student achievement, retention, and graduation through special instructional, tutorial, and counseling services. Services offered include developmental reading and instruction in English and mathematics. Other services include academic, personal, social, career, and vocational counseling, as well as tutorial assistance to aid in meeting the academic needs of the student.

Upward Bound Program: is a pre-college preparatory program designed to generate skills and motivation necessary for success in education beyond high school among young people from low-income, first generation and inadequate secondary school preparation. The Alcorn State University Upward Bound Program Serves high school students from four surrounded counties in the Southwest Mississippi: Adams, Claiborne, Jefferson and Wilkinson. Eligible students are accepted into the program after promotion to the 9th and 10th grade. The program has two components; 1) A six-week Summer Phase whereby students resides on campus and participate in a variety of academic, social and cultural activities. 2) The Academic Phase is a continuation of the summer with additional activities where students meet approximately 18 Saturdays during the fall. Both phases provide academic enhancement in the areas of mathematics, laboratory science, composition, literature, foreign language and word processing.

The major objectives of the program are: 1) to encourage students to participate in activities that will stimulate their interests in conceptual learning and logical relationships, 2) to make students (and their parents) aware of the availability of new vocational opportunities for the qualified person, and 3) to provide positive models and experiences that will interest students in raising their level of aspirations and appreciation.

The program areas include English, reading, science, foreign language, and mathematics. Counseling and tutorial services are offered on a group or individual basis. Extra-curricular activities include recreational, educational, and group activities. They are, in most instances, designed to serve the purposes of enrichment and recreation.

FACILITIES MANAGEMENT

Alcorn State University is a wholesome educational community comprising 1477 acres, of which 300 acres make up the campus and athletic fields, and 1177 acres are devoted to agriculture and research. Built on a gentle slope, the campus is carefully landscaped, carpeted with green grass, and surrounded by attractive shrubbery. Towering trees, many more than one hundred years old, distinctive with Spanish moss, shade the grounds and enhance the picturesque setting in which quiet study and worthy companionship are fostered. Like many of its buildings, the campus is old and mellowed by a tradition that lives in the hearts of all who come under its spell. Its charm cannot be overlooked. The University has one hundred eight buildings which include classroom buildings, sports facilities, support facilities, and agricultural research structures. The physical plant is conservatively valued at approximately \$543 million.

NOTEWORTHY HISTORICAL EVENTS

- 1830** Oakland Memorial Chapel, famed landmark and oldest building on the campus, was constructed and, in 1833, the first degree issued by a Mississippi institution was conferred in it.
- 1830** Belle Lettres, Dormitory Two, and Dormitory Three, also historical landmarks were constructed.
- 1830** President's Home constructed.
- 1871** Oakland College property purchased by the State of Mississippi.
- 1871** Hiram R. Revels elected president.
- 1871** Alcorn University was created by an act of the Mississippi State Legislature on May 13 and given three-fifths of the proceeds of the sale of the land scrip.
- 1878** Alcorn University renamed Alcorn Agricultural and Mechanical College.
- 1882** John H. Burrus elected president.
- 1890** Alcorn Agricultural and Mechanical College designated as an 1890 land-grant college by the Mississippi State Legislature.
- 1893** Wilson H. Reynolds elected president. (Professor Andrew J. Howard completed the unfinished Year of President Reynolds because of death.)
- 1894** Thomas J. Galloway elected president.
- 1896** E. H. Triplett elected president.
- 1899** W. H. Lanier elected president.
- 1903** Alcorn Agricultural and Mechanical College became co-educational.
- 1905** L. J. Rowan elected president (first administration).
- 1911** John A. Martin elected president.
- 1915** L. J. Rowan elected president (second administration).
- 1924** College credit summer school started.
- 1926** Alcorn Agricultural and Mechanical College became accredited.
- 1928** Bowles Hall completed.
- 1929** Rowan Hall constructed.
- 1929** Harmon Hall constructed.
- 1934** William H. Bell elected president.
- 1939** Lanier Hall (dormitory for women students) constructed.
- 1939** Alcorn Agricultural and Mechanical College accredited as a "B" college by the Southern Association of Colleges and Schools.
- 1944** P. S. Bowles elected president.
- 1945** William H. Pipes elected president.
- 1948** Alcorn Agricultural and Mechanical College accredited as an "A" college by the Southern Association of Colleges and Schools.
- 1949** J. R. Otis elected president.
- 1951** William H. Bell Dining Hall constructed (new additions and renovations in 1967 and 1976).
- 1951** The college laundry constructed.
- 1955** Eunice Powell Hall constructed.
- 1956** Alice Tanner Hall constructed.
- 1956** Dorothy Gordon Gray Home Management House constructed.
- 1957** J. D. Boyd elected president.
- 1959** E. E. Simmons Gymnasium (Old Gymnasium) constructed.
- 1959** Renovation of Oakland Memorial Chapel and the President's Home completed.
- 1960** E. Albert Dumas Hall constructed.
- 1961** Men's and Women's Faculty Dormitories (sixteen rooms each) constructed.
- 1961** Two brick buildings containing ten family apartments and ten three-bedroom homes for faculty and staff members completed.
- 1961** Mechanical Arts Building completed.
- 1961** Honors Curriculum Program established.
- 1962** Mabel Thomas Hall (New Women's Dormitory) constructed.
- 1962** Albert L. Lott Hall (New Men's Dormitory) constructed.
- 1963** Felix H. Dunn Infirmary constructed.
- 1964** James L. Bolden Campus Union building constructed.
- 1964** Fine Arts Building constructed.

- 1965** Robinson Hall constructed.
- 1965** Six faculty houses were constructed in Johnson Village (five houses were added in 1965 and three more in 1971).
- 1967** Revels Hall (dormitory for male students) constructed.
- 1968** Burrus Hall completed (dormitory for female students).
- 1968** Water Treatment Plant constructed.
- 1969** John Dewey Boyd Library constructed.
- 1969** Walter Washington elected president.
- 1971** The Alcorn State University branch of the Mississippi Agricultural and Forestry Experiment Station established.
- 1971** The Alcorn State University branch of the Mississippi Cooperative Extension Service established.
- 1971** Army ROTC unit established.
- 1972** W. S. Demby Men's Tower constructed.
- 1972** Cleopatra D. Thompson Women's Tower constructed.
- 1972** Swine Research Center constructed.
- 1972** David C. Carter Dairy (Dairy Facility) constructed.
- 1972** Truck Crops Research Center constructed.
- 1972** Landing strip for small aircraft completed.
- 1973** Matt Thomas Jr. Garden Apartments completed.
- 1973** University Industry Cluster Program established.
- 1974** Alcorn Agricultural and Mechanical College renamed Alcorn State University.
- 1974** Jesse A. Morris Sr. W.C. Boykin Agricultural Science Building completed.
- 1975** Biological Research Building #1 constructed and the United States Department of Agriculture Microbial Conversion Project presently being conducted.
- 1975** Davey L. Whitney Complex (Health, Physical Education and Recreation Complex) completed.
- 1975** Division of Graduate Studies established.
- 1975** Addition to Water Plant completed.
- 1975** Oakland Memorial Chapel entered into the National Register of Historic Places.
- 1977** Nursing Program established.
- 1977** Willie Mae Latham Taylor Park (Outdoor Recreation Park) completed.
- 1977** Biological Research Building #2 constructed.
- 1977** Division of Business established.
- 1977** Walter Washington Administration-Classroom Building completed.
- 1981** Kenneth L. Simmons Industrial Technical Building completed.
- 1981** Initial Accreditation of Basic Programs by National Council for the Accreditation of Teacher Education received.
- 1981** Johnnie B. Collins Beef Research Facility (Beef Research Facility) completed.
- 1981** Stadium Dressing Facility (Financial Aid Building) completed.
- 1981** National Association of Schools of Music Accreditation (Bachelor of Music Education) received.
- 1981** National League for Nursing Accreditation (Associate of Science) received.
- 1982** National League for Nursing Accreditation (Bachelor of Science) received.
- 1983** Food Nutrition and Institutional Management Programs approved by the American Dietetics Association.
- 1983** General College for Excellence established.
- 1984** Cora Balmat Nursing Building in Natchez completed.
- 1984** National Council for Accreditation of Teacher Education Accreditation for Graduate Programs in Education.
- 1987** WPRL FM began broadcasting to Southwest Mississippi.
- 1988** ASU Laundromat completed.
- 1989** President George Bush gave commencement address.
- 1990** Kellogg Nursing Center completed.
- 1993** Jack Spinks Stadium/Dwight Fisher Field completed.
- 1993** Academic divisions elevated to schools.
- 1994** Rudolph E. Waters named interim president.
- 1994** Orchard Building constructed.
- 1995** Dr. Clinton Bristow Jr. named president.
- 1995** Master's Program in Nursing established.
- 1996** Physical Plant Facilities Management Building completed.

- 1997 Center for Rural Life and Economic Development established.
- 1997 Math and Science Building constructed.
- 1997 Master of Business Administration Program initiated.
- 1998 Nursing School dormitory constructed in Natchez.
- 1998 Agricultural Extension and Research Complex completed.
- 1999 Graduate Nursing Program accredited.
- 1999 New President's Home constructed.
- 1999 Extension and Research Building constructed.
- 2000 Safety Center (Police and Fire Station) constructed.
- 2001 A major renovation and expansion to John Dewey Boyd Library completed.
- 2001 Honors Dormitory constructed.
- 2003 Vicksburg Corporate Office opened.
- 2006 Dr. Malvin A. Williams, Sr. named interim president.
- 2007 Dr. George E. Ross named president.
- 2008 Biotechnology Building constructed.
- 2008 Dr. Clinton Bristow, Jr. Dining Facility constructed.
- 2008 Fine Arts Building renovated.
- 2009 Dr. Norris A. Edney, Sr., named interim president.
- 2010 Alcorn, the university magazine, published.
- 2010 Oakland Memorial Chapel included in "Seven Wonders of the HBCU World".
- 2010 Dr. M. Christopher Brown II named 18th president.
- 2010 Medgar Wiley Evers Heritage Village constructed (women's quarters).
- 2011 Medgar Wiley Evers Heritage Village constructed (men's quarters).
- 2011 Amenities Building constructed.
- 2011 Governor Haley Barbour signs bill naming segment of highway 552 in honor of former president Walter Washington.
- 2011 Willie E. "Rat" McGowan Sr. Baseball Stadium and William "Bill" Foster Field dedicated.
- 2011 President M. Christopher Brown II re-established Founders Day.
- 2011 Old President's Home dedicated as Alumni House.
- 2011 Jack Spinks-Marino Casem Football Stadium renamed.
- 2011 Presidential Encampment established by Dr. M. Christopher Brown II.
- 2011 University inherited \$4.2 million from legacy of the 15th President, Dr. Walter Washington.
- 2011 Student enrollment reached the highest ever.
- 2011 University honors the legacy of Medgar Wiley Evers, launched a statue campaign.
- 2011 Annual University Necrology Assembly established.
- 2012 Southern Association for Colleges and Schools (SACS) accreditation reaffirmation received.
- 2012 Department of Athletics received NCAA recertification.
- 2012 Heritage Convocation established.
- 2012 Myrlie Evers named Distinguished Scholar-in-Residence.
- 2012 Alcorn named HBCU of the Year by the Center for HBCU Media Advocacy.
- 2012 Alcorn graduated largest commencement class in history.
- 2012 Social Work Program accredited.
- 2012 University Inaugural Children's Defense Fund Freedom School.
- 2012 Dr. M. Christopher Brown II names first SWAC non-African American football coach Jay Hopson.
- 2012 University held the first faculty/staff recognition ceremony for interval years of service.
- 2013 Alcorn professor Myrlie Evers delivers President Barack Obama's second presidential inaugural invocation.
- 2013 Alcorn Pilgrimage honored Alcorn's first president, Hiram Rhodes Revels.
- 2013 Alcorn's Department of HPER opened a new sports fitness center.
- 2013 Alcorn launched Brave People, Go Green Sustainability Program.
- 2013 Alcorn hosted first Diversity and Inclusion Summit on HBCUs.
- 2013 Alcorn named among top 20 HBCUs by Diverse Issues in Higher Education.
- 2013 Alcorn installed the Epignosis Chapter of Mortar Board National College Senior Honor Society.
- 2013 Alcorn ranked among the top 25 in academics (team's honor roll) by the Women's Basketball Coaches Association, the top 20 in the NCAA Division I, and was the only SWAC team and HBCU to earn the honor this season.

- 2013** Alcorn and Claiborne County partnered to host Youth Leadership Academy.
- 2013** Barnes & Noble Bookstore opened at Alcorn.
- 2013** President M. Christopher Brown II named Male HBCU President of the Year.
- 2013** Alcorn ranked among the top public universities in the south in US News and World Report Rankings.
- 2013** Washington Monthly ranked Alcorn first in research among all Mississippi's public, comprehensive, regional, and master's universities and number 38 nationally.
- 2013** Medgar Wiley Evers Memorial Statue unveiled on Alcorn's campus on June 13.
- 2013** Alcorn's Vicksburg Expansion Program relocated to Vicksburg Pemberton Square Mall.
- 2013** School of Business received initial accreditation from the Council for Business Schools Programs.
- 2013** The College Public Relations Association of Mississippi recognizes Alcorn Magazine and What Matters video with first place awards.
- 2013** Alcorn's Sounds of Dyn-O-Mite participated in the prestigious Honda Battle of the Bands Invitational Showcase in Atlanta, Georgia.
- 2013** Alcorn conferred nearly 700 degrees at Commencement, a 15% increase in the number of graduates.
- 2013** Alcorn won a \$10,000 grant from Home Depot.
- 2013** Alcorn was nominated for "HBCU of the Year" by the Center for Media Advocacy.
- 2013** Alcorn named the first Rector of the Historic Oakland Memorial Chapel.
- 2013** Alcorn ranked #1 for Social Mobility & Research in Mississippi and 38 nationally according to Washington Monthly Magazine.
- 2013** TouchNet Bill & Payment Suite implemented at Alcorn.
- 2013** Alumni Bed & Breakfast House opened.
- 2013** Alcorn held its first CITS Tech Fair.
- 2013** Alcorn and Chamberlain Hunt held joint Founders Day Celebration.
- 2013** Medgar Wiley Evers '52 Memorial Ribbon Cutting Ceremony held.
- 2013** Alcorn honored by the Association of Public Land-Grant Universities for the highest increase in Agriculture degrees awarded between 2012- 2013.
- 2013** Dr. Norris A. Edney, Sr. was appointed Acting President of Alcorn State University.
- 2013** Alcorn received "The Retool Your School Award" from Home Depot Mid-South Region.
- 2013** Alcorn's Braves Kids Club organized as part of the Intercollegiate Athletes Program.
- 2013** Alcorn's Gospel Choir performed with award winning artist Dottie Peoples.
- 2013** Alcorn was named the Tom Joyner Foundation's November School of the Month.
- 2013** Alcorn hosted first Mission Mississippi Glowing for Christ church service in the Oakland Memorial Chapel coordinated by the organization's president, alumnus Reverend Neddie Winters.
- 2014** President Alfred Rankins Jr. participated in the Ice Bucket Challenge during the Braves home opening football game to raise money for ALS.
- 2014** The Department of Athletics formed a partnership with Mississippi wireless company C Spire.
- 2014** The Board of Trustees of State Institutions of Higher Learning approved Alcorn's proposal to eliminate out-of-state tuition for its non-resident students.
- 2014** The Association of Public Land-Grant Universities Council of 1890 Universities named Alcorn as the STEM Degree Completion Award winner at the 127th APLU Annual Meeting.
- 2014** The 24th annual Alcorn Jazz Festival featured 10-time Grammy Award winner Arturo Sandoval.
- 2014** Mississippi Senate Agriculture Committee members visited Alcorn.
- 2014** An Alcorn student represented the University as part of a national HBCU choir performance at the Kennedy Center in Washington, D.C.
- 2014** Alcorn Braves football capped off a dream season with a 38-24 victory over the Southern University\ Jaguars to win the SWAC championship for the first time in 20 years.
- 2014** Dr. Alfred Rankins, Jr. named 19th president.
- 2014** Alcorn implemented 1098 T's for Providing Better Customer Service.
- 2014** Alcorn's Men's Tennis captured SWAC Championship.
- 2014** Alcorn's Extension Program celebrated the 100th Year Anniversary of the Smith-Lever Act.
- 2014** Civil Rights Activist Myrlie Evers delivered Commencement address.
- 2014** Alcorn's Upward Bound, TRIO Program celebrated 50 years of service.
- 2014** Alcorn hosted the United Nations Conference.
- 2004** Alcorn received a \$17.9 million grant for a TRI-Mississippi Project enabling a Collaboration between Claiborne Franklin and Jefferson Counties along with Alcorn to build bridges with support from the department's Transportation Investment Generating Economic Recovery (TIGER) Program.

- 2015** The basketball court in the Davey L. Whitney HPER Complex was named in honor of former women’s head basketball coach Shirley Walker.
- 2015** President Alfred Rankins Jr. introduced his initiative called FACES, an acronym for Facilities Advancement, Academic Excellence, Customer Service, Enrollment Growth, and Student Success.
- 2015** Dr. Jacqueline Walters, founder of the 50 Shades of Pink Foundation and one of the stars of Bravo’s hit reality series “Married to Medicine,” delivered the keynote address at the 2015 Commencement.
- 2015** Alcorn commemorated the 125th anniversary of the signing of the second Morrill Act.
- 2015** The Mississippi Coalition of Partners in Prevention (MCP) chose Alcorn’s campus to host the Suicide Prevention: Questions, Persuade, Refer (QPR) program.
- 2015** The School of Education and Psychology received initial accreditation from the Council for the Accreditation of Educator Preparation (CAEP). With this distinction, Alcorn is the first Historically Black College and University (HBCU) and the only institution of higher learning in the state of Mississippi to be accredited by CAEP. The accreditation for Alcorn was initiated by Dr. Robert Carr Jr., dean for the School of Education and Psychology.
- 2015** The Mississippi World Class Teaching Program chose Alcorn as the latest site for its World Class Teacher Academy.
- 2015** Alcorn was one of six HBCUs to receive a \$250,000 donation from Nissan to promote STEM initiatives.
- 2015** Sodexo at Alcorn was selected among top 25 sites in the nation for quality customer service.
- 2015** Braves football quarterback John Gibbs Jr. and the Alcorn Braves football team won awards for Male Athlete of the Year and Men’s Team of the Year at the fifth annual HBCU Awards.
- 2015** Alcorn ranked number 27 in the Historically Black Colleges and Universities (HBCUs) category, number 29 in the Top Public Schools-Regional Universities South category and number 68 in the Regional Universities (South) category of the U.S. News & World Report’s Best Colleges rankings.
- 2015** The Mississippi Humanities Council (MHC) awarded a grant to Alcorn for an oral history project entitled “Alcorn in the 1960s: A Collection of Oral Histories.”
- 2015** Alcorn’s School of Nursing received a grant from NEO Philanthropy, Inc. in the amount of \$254,000.
- 2015** Alcorn was one of eight Mississippi colleges to share a \$2.25 million grant from the Department of Education to provide better academic opportunities for students and to improve retention and graduation Rates.
- 2015** Alcorn received a \$2 million grant from the U.S. Department of Agriculture to establish the Socially Disadvantaged Farmers and Ranchers Policy Research Center.
- 2015** The board of commissioners of the Accreditation Council for Business Schools and Programs (ACBSP) reaffirmed the accreditation status for Alcorn’s School of Business and its programs.
- 2015** Alcorn State University launched its partnership with GiveCampus to raise funds for its “Always Alcorn Annual Fund Campaign.”
- 2015** Three Alcorn teams competed and placed in the Model African Union Competition.
- 2015** The Alcorn Braves defeated Grambling to repeat as SWAC Champions.
- 2015** The Alcorn Braves participated in inaugural Air Force Reserve Celebration Bowl.
- 2016** Joe and Kathy Sanderson donated \$1 million to Alcorn’s Dr. Walter Washington Scholarship Endowment.
- 2016** Joe and Kathy Sanderson donated \$1 million to Alcorn’s Dr. Walter Washington Scholarship Endowment.
- 2016** The School of Education and Psychology received a \$900,000 grant from the Mississippi State Department of Education to train mathematics teachers.
- 2016** The Atlanta Journal-Constitution (AJC) selected Alcorn as their AJC Sepia HBCU of the Week.
- 2016** Alcorn hosted (second Annual United Nations Global Food Security Conference).
- 2016** Nissan announced the donation of \$250,000 to six local Historically Black Colleges and Universities (HBCU) to promote science, technology engineering and mathematics (STEM) initiatives at each school to inspire and develop talent. Alcorn was a recipient.
- 2016** Alcorn ranked #1 in Mississippi, number nine among Historically Black Colleges and Universities (HBCUs) and number 32 overall on ESSENCE and MONEY magazine’s Best Colleges for African-Americans list.
- 2016** The legendary Branford Marsalis Jazz Quartet performed at the 36th annual Jazz Festival.
- 2016** Lawyer, author and public speaker, Johnny C. Taylor Jr., delivered the keynote speech to graduates at the 2016 Commencement ceremonies.
- 2016** Alcorn’s Women’s Tennis team defeated the Jackson State University Tigers 4-2 to claim the 2016 SWAC Women’s Tennis Tournament.

- 2016** Alcorn received two Senior Division category first place awards, one in the Sports Media Guide for the “Celebration Bowl Media Guide” and another in the View book for “Be Brave. Go Further,” an admissions recruitment guide. Alcorn placed third in the Special Publications Senior Division category for “Alcorn, the University’s magazine” at the College Public Relations Association of Mississippi (CPRAM) Conference.
- 2016** Alcorn constructed the nation’s largest Historically Black College and University owned video scoreboard.
- 2016** The Blue Cross Blue Shield of Mississippi Foundation Awarded Alcorn funding for the Braves for Fitness initiative and a smoke free campus policy.
- 2016** A Socially Disadvantaged Farmers and Ranchers Policy Center was opened.
- 2016** Alcorn hosted the 2nd Annual United Nations Global Food Security Conference
- 2016** Alcorn digitized university exit processes for employees and students.
- 2017** President Rankins implemented a Statewide Presidential Tour to School Districts to enhance recruitment accomplishing much success.
- 2017** Alcorn ranked #18 as Best HBCU in the United States.
- 2017** Alcorn ranked in the top 10 as the highest ranked HBCU on the Best Colleges in Mississippi List.
- 2017** A new campus entrance parking lot was constructed and RV lot paved.
- 2017** Alcorn received SWAC Championship in Golf.
- 2017** Alcorn received SWAC Championship in Track and Field.
- 2017** Lady Braves Softball team became SWAC Eastern Division Champions.
- 2017** Alcorn completed Phases I and II of campus IT Infrastructure including WiFi.
- 2017** Alcorn completed utility infrastructure upgrades.
- 2018** Alcorn opens New Product Development Center through the School of AREAS.
- 2018** Online Academic Degree Programs increased by 50%.
- 2018** The \$1 M Brave Strong Challenge was initiated.
- 2018** Alcorn’s 19th President, Dr. Alfred Rankins, Jr. became the first black and the only Alcornite to become Commissioner of the Mississippi Institutions of Higher Learning (IHL).
- 2018** The University Magazine, Alcorn focused on a BRAVE RISING – Reflecting on the Rankins years as the 19th President, by first time editor VP Marcus Ward through the Division of Marketing and Communications.
- 2018** Alcorn ranked #7 as BEST HBCU in the Nation.
- 2018** Dr. Donzell Lee named Interim President.
- 2018** Alcorn becomes five-time consecutive SWAC eastern division champions in football.
- 2018** Alcorn defeats Southern University to become the SWAC conference champions in football.
- 2018** Alcorn head football coach Fred McNair becomes SWAC Coach of the Year.
- 2019** Alcorn implemented its first doctorate degree (DNP) in Nursing after approval by IHL and the Southern Association of Colleges and Schools – Commission on Colleges (SACSCOC).
- 2019** Alcorn ranked No.3 on the 30 Most Affordable Online Bachelor’s Granting HBCUs.
- 2019** Alcorn ranked No.8 on the 20 Most Affordable Online Master’s Granting HBCUs.
- 2019** Alcorn breaks ground for new faculty/staff housing complex.
- 2019** Alcorn breaks ground for new reverse osmosis water treatment system.
- 2019** Alcorn breaks ground for new technology/classroom building.
- 2019** Alcorn established joint Bachelor of Science degree in Poultry Science with Mississippi State University.
- 2019** Dr. Felecia M. Nave (’96) named Alcorn’s first female, and 20th president.

COMMUNICATION

Telecommunications: Students' living quarters are equipped with a phone jack for a land line connection and two internet jacks to connect to the University network infrastructure.

The University switchboard operates Monday through Friday from 8 a.m. to 5 p.m. Switchboard services are not available on weekends; however, all places of residence, both public and private, are equipped with private home lines and/or pay station phones, giving Alcorn State University twenty-four hours of uninterrupted telephone service.

Handling of Mail: Mail is received and dispatched once a day through the United States Post Office in Lorman, Mississippi 39096. All the mail that is addressed to the University is distributed through the local Branch Post Office on campus. Mail arriving to the University should be addressed: Alcorn State University, Post Office Boxes or to the desired dormitories, Alcorn State University, Lorman, Mississippi 39096-7500.

All express mail should be addressed to the correct box or dormitory at Alcorn State University, Mississippi 39096-7500. It is very important that mail with box numbers 1-900 use Alcorn State University after the box number.

Publications: In addition to the *ASU General Catalog* (undergraduate) and the *ASU Graduate Catalog*, the following are official publications of Alcorn State University:

THE ALUMNUS --- Official publication of the Alumni

ASU TODAY—Online Daily Publication

<http://www.alcorn.edu/> --- Alcorn State University Official Web Page

STUDENT AND LIFE SERVICES

CAMPUS UNION

The James L. Bolden Campus Union is the community center of interaction among students, faculty, staff, administration, alumni, and guests. The various boards, committees, and staff of the Union provide a cultural, social recreational program aiming to make free-time activity a cooperative factor in education. The following are campus union facilities and components:

Game Room

The Union. The Union serves as a unifying force in the life of the University, cultivating enduring regard for, and loyal to the University.

Game Room. The game room offers the campus community the opportunity to use the following recreational facilities:

- Video Games
- An eight lane Bowling Alley
- 10 Billiard Tables
- 5 Table Tennis
- Chess
- Checkers
- Cards
- Music

Game Room hours are as follows:

Monday – Friday 12:00 p.m. - 10:00 p.m.

Saturday 5:00 p.m. - 10:00 p.m.

Sunday 5:00 p.m. - 10:00 p.m.

World of Wings (WOW) & Sub Connection. WOW Wings and Sub Connection is located on the first floor, serves as a snack bar which specializes in short orders and other tasty items. The following schedule for Pizza Hut & the Sub-Sandwich Shop is effective until further notice:

Bookstore. The bookstore is located in the Medgar Evers Student Housing Village. The bookstore serves the needs of the university community by providing, at a reasonable price, textbooks, school supplies, novelties, toiletries, and an assortment of other items ordinarily needed by the university community. The operating schedule for the bookstore is listed below:

Bookstore hours are as follow:

Monday - Thursday 8:00 a.m. - 6:00 p.m.

Friday 8:00 a.m. - 5:00 p.m.

Saturday 12:00 p.m. - 4:00 p.m.

CAREER SERVICES

The Office of Career Services equips students for their careers allowing them to 1. Immediately enter the workplace, 2. Gain admission and attend professional or graduate school, 3. Pursue entrepreneurship or, 4. Enter military service. The Office of Career Services provides the resources students need to be successful. Career services offer inventory tests to help early college students in career exploration, major changes, and planning. Additionally, enrollees obtain assistance in obtaining experiential experiences or job shadowing to prepare them with relevant career experience.

Those students seeking to enter into graduate and professional schools receive aid in structuring their graduate and professional school's personal statements and essays to best represent them to their application committee. All students can receive virtual and in-person mock interview tips to help them as they prepare for interviews. Students receive guidance for career and educational advancement networking. Professional Development workshops and coaching include professional dress, corporate and federal resume, cover letters, informational interviews, experiential learning opportunity searches, post-baccalaureate programs, personal branding, LinkedIn, salary negotiations and increasing professional value. These services are provided cost-free to students and recent alumni (3 years).

Not only does the office support students but it also strives to connect the entire Alcorn community through collaboration and opportunities through the Career Advisory Board. The services offered to the Alcorn community include:

- 1) service to the student –by facilitating interviews with employers, career counseling, sharing job listings, providing occupational literature on career opportunities. Understand various employment categories and how these might impact them, e.g., part-time employment, full-time employment, contract employment, independent contract employment, commission-based employment, work-from-home employment, virtual employment; consulting with professional staff and employers, and maintaining and reproducing credentials,
- 2) service to the employer—providing an avenue for employers and partners to articulate needs to the students, faculty, staff, and alumni, enabling them to visit and interview qualified applicants. Create a conduit for the professors and other University personnel, by keeping them informed of changes in educational and degree programs, and by helping them gain a deeper insight into the placement process through professional organizations; Provide employer feedback to institutional stakeholders and students on the students' preparation for jobs, the curricula, and the hiring process;
- 3) service to the institution—by establishing a source of accurate and timely information on economic and industrial market trends, by providing information concerning the effectiveness of the curriculum as it relates to specific career areas, by representing the institution to many professional arenas such as business, industry, government, medicine, and education. Provide feedback and data to faculty, and administrators on the preparation of graduates for employment and undergraduate, graduate, and professional school to aid curriculum development and individual career planning;
- 4) service to the other institutional research units, state agencies, accrediting bodies, academic graduate programs, and other evaluative groups that generate and assess evaluation information to ensure comprehensiveness and quality. Initiate collaborative interactions with internal and external individuals and agencies that possess interests and/or concerns regarding career services, i.e., may include all phases of career development, planning, and employment; to see how it complements and enhances Alcorn State University's institution's stated mission and educational effectiveness.

COUNSELING CENTER

Where is Counseling Services Located?

Walter Washington Administrative Classroom Building (WWACB)
3rd Floor Room 305

Who do we serve?

Enrolled ASU Students

How do I make an appointment?

To make an appointment, call 601-877-6230 or come to Room 305- WWACB. Walk-ins are welcome.

What services do we offer?

- **Individual Counseling-** provides an opportunity for students to meet with a counselor on a one-on-one basis to help resolve conflicts, solve problems, and develop coping skills that promote emotional, behavioral, and social well being.

- **Group Counseling-** a counselor assists multiple students in a group setting who have similar issues and concerns. Each student must agree to group counseling.
- **Consulting/Referrals** an extensive list of referral agencies are maintained by Counseling Services. Staff are also available for consultation as deemed necessary and appropriate, with faculty, staff and/or other official representatives of Alcorn State University.
- **Alcorn Substance Abuse Prevention Program (ASAPP)** Alcorn Substance Abuse Prevention Program is designed to decrease the problems associated with ATOD (alcohol, tobacco, & other drugs) use and abuse at Alcorn State University. It targets collegiate students throughout campus with both evidence and non-evidence-based programming. The ASU Counseling Services Center also provides primary prevention programs to students in public school districts surrounding Alcorn State University.
- **Outreach Programs** Counseling Services conducts presentations, workshops, and seminars that are designed to enhance the psychological, social, and academic well-being of our students, faculty, staff, and the Alcorn State University community. Examples of prevention outreach program topics include (but are not limited to) the following areas: stress management, relationship issues, coping with depression/grief, time management, and substance abuse prevention.
- **Psychological Assessment Evaluation Behavioral,** personality and intelligence assessments are offered as deemed necessary in the provision of Counseling Services.

What is the cost?

There are no charges for counseling services provided by the Counseling Services. However, if referrals are made to outside agencies, you are responsible for any fees incurred from those agencies.

What about Confidentiality?

Students are assured of confidentiality in accordance with ethical and legal standards set by the American Psychological Association, American Counseling Association, and National Association of Social Workers. Disclosure of confidential information regarding any student without written consent from the student is prohibited by Counseling Services, Alcorn State University, the Family Education Rights and Privacy Act of 1974 (FERPA) and the Health Insurance Portability and Accountability Act of 2003 (HIPPA).

EXCEPTIONS

Counseling services staff may only release information to the proper authorities if the student:

1. Demonstrates a clear and imminent danger to self or others, **OR**
2. Indicates that a minor, elderly person (65 or older), or dependent (vulnerable) adult is being abused or neglected and, **OR**
3. Is involved in litigation and the court orders that information be disclosed.

ELIGIBILITY REQUIREMENTS FOR HOUSING

All Alcorn State University students enrolled full-time (12 credit hours) Undergraduate and (6 credit hours) Graduate in good standing with the University, are eligible for on-campus housing. Students must present **PROOF** of completed registration for clearance to check into assigned residence hall.

FINANCIAL AID

Students expecting to receive financial aid must submit all required financial aid documents to the Financial Aid Office. Once the information is received and reviewed, eligibility will be determined. If eligible to receive financial assistance, an award letter will be mailed, emailed or uploaded through Banner Online Services. Any difference in the amount awarded and the amount needed to complete the registration process must be paid before completing the registration process. Previous balances must be paid in full at the time of registration.

Student Aid Programs

Four basic types of available aid: scholarships, grants, loans and employment. They are derived from federal, state, and institutionally funded programs. When students apply for federal student aid, the information reported is used in a formula that calculates the Expected Family Contribution (EFC), an amount the student and his/her family are expected to contribute toward the student's education.

Students may apply by completing the FAFSA (Free Application for Federal Student Aid) or renewal FAFSA at <https://studentaid.ed.gov/sa/fafsa>. The two most important dates you need to remember concerning the FAFSA are Oct. 1st and June 30th. Each year, the FAFSA opens on Oct. 1st. File your FAFSA as close to Oct. 1st as possible to improve your chances of qualifying for the most grant, scholarship and work-study aid.

Federal Student Aid Includes:

- Grants – financial aid that doesn't have to be repaid (unless, for example, you withdraw from school and owed a refund)
- Loans – borrowed money for college; you must repay your loans, with interest
- Work-Study – a work program through which you earn money that can help with expenses
- Additional Information concerning Federal Student Aid can be located at <https://studentaid.ed.gov/>

State Financial Aid:

- Even if you're not eligible for federal aid, you might be eligible for financial aid from your state. Contact your [state grant agency](#) for more information.
- Mississippi residents: <https://www.msfinancialaid.org/>

Institution Aid:

- Alcorn offers many general and special scholarships to qualified students. Scholarships are offered based on academic merits (Contact Office of Admissions) and competitive selection for music, band, athletics, etc... (Contact Specific Department of Interest).
- Visit Alcorn's website (www.alcorn.edu) for additional scholarship information.

FOOD SERVICE

All students living in University residence halls are expected to take their meals in the Clinton Bristow, Jr. Dining Hall. Meals are served cafeteria style. Students obtain permission to eat in the cafeteria by paying board fees in advance. Sandwiches, beverages, and short orders are served in the James L. Bolden Campus Union Building.

HEALTH AND DISABILITY SERVICES

The Department of Health and Disability Services is located in the Rowan Hall, Health Services Center. The telephone number is 601-877-6460. It serves as the primary health care facility on the main campus offering professional services for all Alcorn State University students, faculty and staff. Students who need disability accommodations should submit an application packet with supporting documentation from a qualified professional to the Director of Health and Disability Services. Upon careful review of the documentation and discussion with the student, the Director of Health and Disability Services will arrange reasonable physical and academic accommodations.

Health and Disability Services Walk-in Hours of Operations are:

8:00 a.m. - 4:00 p.m.	Monday thru Thursday
8:00 a.m. - 3:00 p.m.	Friday

After-Hours/Emergency Care: In case of emergency please contact Campus Police/Ambulance Services at 601-877-3000 or Dial 911.

See the Alcorn State University Student Handbook online at www.alcorn.edu for detailed information.

MANDATORY RESIDENCY REQUIREMENT

All full-time students attending the University under the age of twenty-one (21) who have completed fifty-nine (59) or fewer hours prior to the first day of classes for the term and are not living at the primary residence of their parents or legal guardians within a 40-mile radius of the University are required to reside on campus and participate in a meal plan.

Attaining the age of requirement does not void the contractual agreements made for housing; provided, however, that a student who will attain the age of twenty-one (21) prior to the first day of classes for the following spring semester may request a one-semester housing contract/and further provided that a student under age twenty-one (21) who satisfactorily completes sixty (60) or more hours during the first semester may be released from the second semester of the housing contract. **A non-refundable \$125.00 application fee is required before the application can be processed.**

- A student who is a military veteran with at least two (2) years of service is exempted from these housing requirements.
- A married student, living with his/her spouse is exempted from these housing requirements.
- A single parent may be exempted from these housing requirements if a child lives with them.
- Students meeting the 40-mile radius must complete the Permission to Live Off Campus Form and bear the seal of the Notary. Forms are available in the Residence Life Office.

MISSION STATEMENT

Residence Life provides a safe, diverse and well-maintained environment that complements and supports the academic mission of the University. We create a dynamic living/learning experience that promotes and inspires individuals to become empowered community members. The following is a summary of the residence life policies that will govern students while they attend Alcorn State University.

PUBLIC RADIO STATION (WPRL)

WPRL, 91.7 FM your trusted source for news, sports, talk, music and entertainment, is a 3000 watt CPB-qualified public radio station broadcasting on the campus of Alcorn State University to the surrounding communities as a service of the University. WPRL's mission is to engage, educate, and entertain by creating and providing innovative, outstanding programming fueled by intellectual and cultural diversity.

WPRL is a member of National Public Radio, an affiliate of Public Radio International and the Associated Press. It provides educational and entertainment programming for the general audience as well as opportunities for students, faculty, staff, and community members to learn practical broadcasting skills as volunteers and interns.

REGULATIONS REGARDING MARRIED STUDENTS

Married students who reside in residence halls are subject to the same standards of conduct and living that govern the life and activity of other resident students.

REGISTRATION OF MOTOR VEHICLES

Each person who operates a vehicle on campus must be registered with the Office of Parking Services. Each vehicle must have a valid, properly displayed parking permit. Parking citations are issued for violations, including having no valid permit, and are payable at the Office of Parking Services. The online module for parking rules, registration for parking permits, and payments for citations can be accessed at www.alcorn.edu/parking.

RESIDENCE LIFE

The mission of the Alcorn State University Department of Residence Life/Housing is to provide "a home away from home" where students can be safe and comfortable on campus. Part of the residence hall experience is learning to live, fellowship, socialize and interact with other people from different racial, ethnic and economic backgrounds. To this end, students are guided to develop a growing sense of maturity and responsibility by participating in residence hall activities. By doing so, the students are intellectually stimulated to think critically solve problems and maintain an atmosphere conducive to academic pursuits and college life.

STUDENT RIGHTS

In a community living situation, as found in the residence halls, it is necessary to impose certain standards for conduct and behavior to ensure that there is some order to the environment. Each resident living in the residence hall has certain rights they are entitled to:

- These rights are:
- The right to sleep
- The right to one's personal belongings
- The right to free access to one's room and suite facilities
- The right to a clean environment in which to live
- The right to read and study free from undue interference in one's room
- The right to complain and be heard
- The right to personal privacy
- The right to be free from verbal or written abuse, threats, intimidation or violence

Residents are expected to respond appropriately to the reasonable requests of other residents and Residence Life staff. Residents will respect the rights of other residents, and each resident is responsible and held accountable for his or her behaviors, as well as for the behavior of his/her guests(s).

TESTING SERVICES

The mission of Testing Services is to assist the university with assessment services to admit and retain the students who attend Alcorn State University. College entrance and placement tests and other forms of assessments are vital to a student's first two years to effectuate student learning outcomes. Testing services not only include planning, administering, and scoring tests and assessments, but also interpreting results, maintaining strict confidentiality, and properly securing test documents. The Office of Testing Services values world-class customer service.

Standardized Tests Administered

ACCUPLACER - is a computerized placement test mandated by Mississippi's Institution of Higher Learning (IHL) for students who do not meet one of the four admissions standards to enroll in any of its eight public universities. The suite of tests determines a student's knowledge in math, reading and writing. Students granted admission as Over 21 will take this test to determine if there is a need to enroll in intermediate level courses.

American College Test (ACT) - is the leading US college admissions test, measuring what students learn in high school to determine their academic readiness for college. The ACT Information and Registration Bulletin is only available online. For the most current and comprehensive resources for test takers, click on the commonly used links listed below.

ACT Website

Information and Registration Bulletin and Other Forms

Information for Test Takers with Disabilities or Health-related Needs

Official Test Preparation Materials

ACT Residual - residual testing is provided for ACT-participating colleges to administer the test to enrolled, admitted, or applicant students who were unable to test on a National ACT date. Individuals who wish to take the ACT Residual must have an application for undergraduate admission on file. Results of the test are reported only to the institution administering the test. Students taking the ACT Residual may not repeat the test within a sixty-day period. This sixty-day exclusion applies to all Residual ACT testing, even if the previous Residual exam was conducted at a different institution.

Placement Test - students age 21 and over, who have met Alcorn State University's admissions requirements, but need to be tested to determine their skill level, will take this test. Academic advisors use the results of the assessment to enroll these students into a math, reading, or writing course. The ACCUPLACER is used for this purpose.

Graduate Record Examination (GRE) - is an admissions requirement for most graduate schools in the United States. The exam aims to measure verbal reasoning, quantitative reasoning, analytical writing, and critical thinking skills that have been acquired over a long period of time. **Alcorn State University administers the GRE Subject tests ONLY!** The GRE Information and Registration Bulletin is only available online. For the most current and comprehensive resources for test takers, click on the commonly used links listed below.

UNIVERSITY LIBRARY

The Alcorn State University Libraries consist of the J. D. Boyd Library (Main Library) and the Natchez Library Learning Resource Center. The Library serves as a storehouse of knowledge designed to meet the informational, cultural, and recreational needs of the students. Librarians and support staff members are on duty eighty-eight hours per week to provide the most effective and efficient service possible.

Books are located in the reference and general collection, government documents and periodical collections, media collections, and database subscriptions. Instructors can make materials available from the J.D. Boyd Library using the Interlibrary Loan (ILL) or the Reserve Book system.

On the main floor are the circulation and information desks, online catalog, reference collection, black reference collection, periodicals collection, map collection, and computer lab. The reserve books are located behind the circulation and ready reference desk. The general circulating collection 000-999, audio-visual, black collection N000-N999, fiction, juvenile, juvenile fiction, and black fiction are all located on the second floor.

The main library house over 420,000 books and subscribes to over 130 electronic journals, and 88 databases that covers all academic disciplines including agriculture, education, business, arts and sciences and nursing.

The Natchez Library Learning Resource Center (NLLRC) holds five primary nursing areas, related sciences, and specialty areas comprised of the majority of the collection. Retrospective volumes and microfilms for nursing majors, education, and business journals are also available. Audio-visual materials such as videos, CDs, DVDs, films and audio cassettes in nursing and other fields which meet the needs for enhancement and remediation are available, in addition to materials in nursing and science.

Checking Out Books.

Books in the general circulating collection may be checked out for fourteen days. The return date is printed out and placed in the pocket of the book. Renewals are allowed for books that are not in demand for an additional fourteen days. Books in the general circulating collection must be checked out fifteen minutes prior to closing time.

Reserve books can be checked out for library use during the day. A two-hour time restriction is usually placed on these books. They may be checked out for overnight use thirty minutes before closing time and returned the first thirty minutes of the library's operation the following day with the permission of instructor.

Returned Books.

Books should be returned on or before the date indicated on the return book slip found in the pocket of the book.

Fines on overdue books in the general circulating collection are **TWENTY-FIVE CENT PER DAY** and the fine on reserve books is **TWENTY-FIVE CENT** the first hour and five cents for each additional late hour. **The PRICE OF THE BOOK WILL BE CHARGED AS A LOST BOOK.** These charges will be placed on the students account in the Business Office.

Newspapers, Journals, and Magazines.

Newspapers, journals or magazines must not be taken outside the library.

Library Cards.

Student's Gold card serves as their library card. To obtain a library card, a student must present their gold card along with a completed application form which is available at the circulation desk.

Many problems arise because some students check out books for other persons who do not return them. You are advised against this practice because if the other person fails to return the books **YOU WILL BE CHARGED THE FINE**, since your library card number appears on the records.

Shelving Books.

Students should not re-shelve any books. All books should be returned to the circulation desk.

Online Catalog.

OPAC, Online Public Access Catalog, is in machine readable form and is located on the main floor of the library. The main purpose of the online catalog is to let you know what materials are in the library and where they are located. If assistance is needed, a reference librarian is on duty.

Mutilation.

Students found guilty of **MUTILATING** journals books or encyclopedias will be charged the entire price of the book or journal subscription.

Photocopy Machine.

The Copyright Law of the United States governs the making of photocopies of copyrighted materials. Any person using the photocopy machines are liable for infringement.

Photocopying machines can be used to make copies of articles from books and periodicals. This service costs ten cents per copy. The copy machines are located on the main floor in the copy room.

Library Hours.

Library hours for special collection are limited. Normally the Alcorn Archives is available for research purposes only. Requests must be made with the Archivist during the regularly scheduled hours of 8:00 a.m. to 5:00 p.m. Monday through Thursday and 8:00 a.m. to 4:00 p.m. on Fridays.

The Instructional Media Center is also opened 60 hours per week. Students should check the schedule which is posted in that department. The library is open 88 hours per week, schedule as follows:

Monday – Thursday	8:00 a.m. - 11:00 p.m.
Friday	8:00 a.m. - 7:00 p.m.
Saturday	9:00 a.m. - 5:00 p.m.
Sunday	2:00 p.m. - 11:00 p.m.

Conduct.

Students are asked to conduct themselves in a quiet and orderly manner when using the University Library.

Student Services Access Center

The Student Services Access Center is the single point of contact for enrollment services in Natchez. It is our goal to serve as a liaison between you and main campus services. The Student Services Access Center consists of the administrative and support services that assist students throughout their academic career in completing their curricula and managing their University affairs. The center utilizes technological and personal resources to provide quality and convenient services to students.

ASU FOUNDATION, INCORPORATED SCHOLARSHIPS

PHASE I APPLICATION PERIOD (MARCH - MAY)

PHASE II APPLICATION PERIOD (AUGUST - SEPTEMBER)

Admitted undergraduate students have the opportunity to apply for merit-based scholarships offered through the Alcorn State University Foundation, Inc. The Foundation administers both endowed scholarships and expendable scholarships, or those that must be replenished with funds from the donating individual or entity. The majority of scholarships available are in the form of endowed scholarships or those that are invested and funds awarded based on available interest. Alumni, former University faculty and staff or family and friends in memory of beloved Alcornites who value the opportunities of an Alcorn education mostly establish endowed scholarships. Most scholarships offered by the Foundation **Require a Minimum 2.0 GPA or Above.**

Students are able to apply during the two (2) application periods - PHASE I Late Spring (mid-March through mid-May) and PHASE II Early Fall (late August). After applications are received, they are evaluated and decisions made by the University's foundation scholarship committee and staff.

If selected, **PHASE I Scholarship Recipients are notified in writing by July 15** and requested to either submit their own typed and signed Thank You Letter to the Foundation and/or schedule an appointment for a "Thank You Letter Writing Session" with the ASU Writing Center in the J.D. Boyd Library at their earliest opportunity.

PHASE II Walk-In Scholarship Recipients are notified in writing or via telephone by September 11. All Thank You Letters must be submitted to the ASU Foundation by mid-October. Final Thank You Letters are usually forwarded to the donor to notify them of the recipients' appreciation. If the final Thank You Letter is received in time, the scholarship monies will be posted to the students ASU account during registration.

ASU Foundation scholarship recipients, not only receive financial assistance to defray the cost of an education but they also become one of Alcorn's ambassadors of excellence.

AWARDS

Actual amounts available to be awarded depend on investment portfolio performance. The majority of scholarship awards is a maximum \$1,000 and is awarded for one (1) academic year for both fall and spring semesters. One half of the total award is paid in the fall and the remaining half in the spring. A select number of scholarships are awarded for the summer sessions. There are a few recurring scholarships that are renewable from year-to-year based on students maintaining adherence to certain criteria, however the majority of scholarships are non-recurring. To apply, click the link below to learn about scholarships available through the ASU Foundation.

<http://www.alcorn.edu/giving-back/scholarships/scholarship-descriptions/index.aspx>

ACADEMIC REGULATIONS AND PROCEDURES

UNDERGRADUATE ADMISSION TO THE UNIVERSITY

Admission to Alcorn State University is administered under policies established by state law, the Board of Trustees of State Institutions of Higher Learning. Admission requirements are subject to change without notice at the direction of the Board of Trustees.

All inquiries concerning admission to Alcorn State University should be directed to the Office of Admissions. To be eligible for admission, a person must be a graduate of a recognized high school. Persons who are not high school graduates are required to pass the General Education Development (GED) test and make a satisfactory score on the ACT and/or SAT before being admitted.

Applications for admission are accepted any time during the calendar year. Persons interested in applying are encouraged to apply online by going to https://selfserve.alcorn.edu/pls/prod/bwskalog.P_DisplLoginNon. Those who may be unable to apply online should write or call the Admissions Office for an application and instructions for applying. All applicants should have high school and/or college transcripts, ACT or SAT scores, or a GED passing score transcript sent directly to the Office of Admissions, Alcorn State University, Lorman, Mississippi, 39096-7500.

When the application for admission, ACT or SAT profile, transcript and/or GED transcript is received, the applicant will be notified concerning his/her status. It is advantageous to submit a partial transcript, as this will enable the staff to evaluate the academic record and provide an early response to the applicant's request for admission. Partial transcripts should include all available grades earned from freshman year to present. The partial transcript does not substitute for the final transcript, which should be submitted after graduating from high school.

Alcorn State University does not have an admission application fee for undergraduate students.

Alcorn State University adheres to the principle of equal opportunity. The University does not discriminate on the grounds of race, color, religion, sex, national origin, age or handicap.

ADMISSION TO FRESHMAN STANDING

The scholastic requirement for full admission to the freshman class is graduation from an accredited high school with at least a "C" average and completion of the 16 ½ College Prep Curriculum as follows:

REQUIRED COLLEGE PREP CURRICULUM FOR HIGH SCHOOL GRADUATES TO ATTEND ALCORN STATE UNIVERSITY

College Preparatory Curriculum •

The minimum REQUIRED College Preparatory Curriculum for full admission into Alcorn State University is as follows:

English: 4 Carnegie units

- All must require substantial communication skills (i.e., reading, writing, listening, and speaking). Compensatory Reading and Writing may not be included.

Mathematics: 3 Carnegie units

- Algebra I or its equivalent
- Math higher than Algebra I (2 units)

Science: 3 Carnegie units

- Biology I or its equivalent
- Science higher than Biology I (2 units)

Social Studies: 3 Carnegie units

- U.S. History
- World History
- U.S. Government (½ unit)
- Economics (½ unit) or Introduction to World Geography (½ unit)

Arts: 1 Carnegie unit

- Includes any one Carnegie unit (or two ½ units) of visual and performing arts course(s) meeting the requirements for high school graduation.

Advanced Electives: 2 Carnegie units

- Option 1: Foreign Language I and Foreign Language II
- Option 2: Foreign Language I and Advanced World Geography
- Option 3: Any combination of English, Mathematics higher than Algebra I, Science higher than Biology I, Advanced Elective category, any AP course, any IB course

Technology: ½ Carnegie unit

- A course that emphasizes the use of technology as a productivity tool. Instruction should include utilizing various forms of technology to create, collaborate, organize, and publish information. The application of technology as a productivity tool, rather than specific hardware and/or software packages should be the focus of the course.

Total Carnegie units: 16½

ADMISSION POLICIES

ADMISSION OF FRESHMEN

All applicants for admission to freshman standing at Alcorn State University are required to take the American College Testing Program examination or the SAT and have their scores submitted to the Office of Admissions.

There are five ways to gain Freshman Undergraduate admission to Alcorn State University:

1. Complete the College Preparatory Curriculum (CPC) with a minimum 3.2 high school grade point average (GPA) on the CPC; or
2. Complete the College Preparatory Curriculum (CPC) with a minimum 2.50 high school GPA on the CPC or a class rank in the top 50%, and a score of 16 or higher on the ACT* (Composite); or
3. Complete the College Preparatory Curriculum (CPC) with a minimum 2.00 high school GPA on the CPC and a score of 18 or higher on the ACT* (Composite); or
4. Satisfy the NCAA standards for student athletes who are "full-qualifiers" or "academic redshirts" under Division I guidelines; or
5. Students who do not meet the above criteria are nonetheless eligible for admission. Such students must participate, however, in an on-campus placement process at the University of their Choice.

The interview will include a computerized exam, Accuplacer. The results will determine whether a student receives a full admit to freshman standing or will be required to attend our Summer Developmental Program. Upon successful completion of the Summer Developmental Program, students may enroll in the fall semester and be required to participate in a year-long academic support program. If a student fails to successfully complete the Summer Developmental Program, the student will be advised to seek other academic alternatives.

Students entering Alcorn as freshmen will be placed in English and Mathematics courses based upon established cut-off scores in the subtest areas of the ACT assessment. Students scoring below the cut-offs scores will be placed in Intermediate English, Mathematics, and/or Reading courses.

A student who has not completed high school but is 18 or older and wishes to enroll at Alcorn State University must take and successfully pass the General Education Development Test. To take the GED, students must:

- Be 18 years or older.
- Be out of school for 6 months or more.
- Be residents of Mississippi for 30 days or more.

Any students 21 years of age or over who do not have an ACT score or who do not meet minimum admission requirements as set forth under admission to the University may register without meeting these requirements. Such students may register for a maximum of 12 semester hours during the semester. Degree student status may be achieved by meeting the regular admission standards (including ACT score) or by completing a minimum of 12 semester hours with a “C” or above average.

ADMISSION OF TRANSFER STUDENTS

To be eligible for admission as a transfer applicant, a student should have an official transcript showing credits and grades and an official statement of honorable dismissal sent directly from the college or University previously attended to the Admissions Office.

All transfer students must receive an authorization form from the University College before entering a major department. A student who is not in good standing with the school from which he/she desires to transfer will not be granted admission to Alcorn until he/she is eligible for readmission to that school.

Transfer students must have an overall average of “C” and the following required 30 semester hours:

6 semester hours	English Composition
3 semester hours	College Algebra or above
6 semester hours	Laboratory Science
9 semester hours	Transferable Electives
6 semester hours	Social /Behavioral Sciences

Full credit is given for all courses passed at other accredited institutions provided the courses and grades of “C” and above are equivalent to the requirements of the curriculum chosen at Alcorn.

In all cases, in order for a student to qualify for graduation, he/she must possess a 2.0 average on a 4.0 scale based on his/her record at Alcorn as well as on his/her entire record.

A transfer student from a non-accredited college may be considered for admission on a one-by-one basis, providing the student meets the above semester hour requirements.

Transfer applicants who meet the freshmen admission requirements at Alcorn State University, but choose to enroll at another institution, and who do not have the 30 or 15-hour requirement may transfer at any time provided the following provisions are met:

- The applicant submits a formal application.
- The applicant submits an official transcript from each college or University attended.
- The applicant is in good standing at the last college or University attended.

- The applicant submits a minimum American College Test (ACT) composite score of 16 or Scholastic Aptitude Test (SAT) composite of 790.
- The applicant has a cumulative grade point average of 2.0 on a 4.0 scale (based on methods of computing GPA at Alcorn State University).

Evaluation of Credits: The Dean of the University College, along with the department chair of the department to which the student has been admitted, determines courses that can be accepted in the degree program. Students will not receive transfer credit for the courses designed specifically for technical and vocational career programs, or remedial programs. Students transferring from one of the Mississippi public community colleges and following the CORE courses approved by the eight state universities will receive complete credit for the courses outlined in the CORE as stipulated in the articulation agreement between the public universities and the public community colleges' governing boards.

The chair of the department to which the applicant seeks a degree determines the way previously earned credits will apply in the degree program. Students ordinarily receive no transfer credit for courses designed specifically for technical and vocational career programs, or remedial programs.

Once admitted to the University, a student must obtain written approval of his/her department chair before taking courses at another institution with the intention of transferring credits toward an Alcorn State University degree.

Grade Requirements: After enrollment at the University, all course work attempted at other institutions should be taken with prior approval from the University College, Department of Major, advisor, and Records Office. Transferred courses with "D" (1.00) will not apply for credit.

At the discretion of the executive officer, the University may allow a limited number of high-risk transfer students to enter who have not met the entire 30-hour transfer requirement. This number shall be no greater than a number equivalent to 10 percent of the previous year's (for summer, fall, and spring terms) first-time transfer students. Each high-risk student must have a minimum of fifteen transferable semester hours, with a minimum grade point average of 2.0 on a 4.0 scale. These hours must include six hours of English Composition.

Students from fully accredited institutions ordinarily will be given full credit for work transferred into the University as long as the courses taken are the same as, or equivalent to, courses offered in the department in which the student enrolls.

ADMISSION OF FORMER STUDENTS

Former students in good standing who have not enrolled for one or more semesters (summer session excluded) must file the brief application for readmission that is available in the Admissions Office. A former student must be in good standing before being readmitted.

ADMISSION OF INTERNATIONAL STUDENTS

To be considered for admission, an international student must submit the regular Application for Admission form and transcript(s) from secondary school and/or colleges previously attended. A minimum composite score of 18 on the American College Test (ACT) or 790 or above on the SAT is required. The international student should give evidence of having adequate financial support (scholarships, loan, etc.) before his/her arrival on the campus. The University does not assume responsibility for a student who arrives with inadequate resources. Test of English as a Foreign Language (TOEFL) is required to adequately determine proficiency in the English language. If it is determined that English is used as a "second language" in the applicant's country of origin, the TOEFL requirement may be waived.

A minimum composite score of 525 (PBT), 195 (CBT), or 71 (IBT) on the TOEFL is required. The NACES requirement is waived for student-athletes who satisfy the NCAA standards by receiving a certification of “full qualifier” under D1 Guidelines. Official transcripts and certificates must be sent to the Office of Admissions. The I-20 form authorizing the student’s visa is sent after the student is accepted. The applicant must submit official academic transcripts to a National Association of Credential Evaluation Services (NACES) member and pay the associated fee to assess the authenticity of these documents. (See NACES web site, www.naces.org, for a list of NACES members.)

ADMISSION OF SPECIAL STUDENTS

Mature applicants who do not meet all requirements for admission to college standing or who are not candidates for degrees may be admitted as special students to courses for which they demonstrate adequate qualifications. A maximum of 30 semester hours may be taken as a special student. Special students may later become candidates for degrees when they meet regular entrance requirements.

ADMISSION OF VETERANS

Examination of Records: School records and accounts pertaining to veterans and eligible persons enrolled are readily identifiable and available for examination by authorized representatives of the government. All permanent records are maintained in the Office of Student Records.

Entrance Requirements: Proof that entrance requirements were met at the time of enrollment is a part of the student’s permanent record.

Previous Education and Training Requirements: The University will consider all previous education and/or training of the veteran when he/she applies for admission. The previous education and/or training must become a part of the veteran’s permanent record at the University. It is the sole responsibility of the veteran to inform the University if he/she has attended any other school, college, or University prior to entering Alcorn State.

DUAL ENROLLMENT

A Dual Enrolled Student is a student who is enrolled at Alcorn State University while enrolled in high school. Students can earn up to a semester’s worth of college credit in high school. A semester’s worth of college credit equals 15 credit hours at Mississippi community/junior colleges or 12 credit hours at Mississippi public universities. One (1) three-hour university or community/junior college course is equal to one (1) high school Carnegie unit. (MS Code 37-15-38 (13))

Dual Credit

A Dual Credit Student is a student who is enrolled at Alcorn State University while enrolled in high school and receiving high school and college credit for postsecondary coursework. Students can earn an unlimited number of college credits while in high school.

Any course that is required for subject area testing as a requirement for graduation from a public school in Mississippi is not eligible for dual credit. (MS Code 37-15-38(11))

Begins with the incoming freshmen class of 2022

The minimum REQUIRED CPC for full admission into a Mississippi public university is as follows:

English: 4 Carnegie units

- Units must require substantial communication skills (i.e., reading, writing, listening, and speaking). Compensatory Reading and Writing may not be included.

Mathematics: 4 Carnegie Units

- Algebra I or its equivalent
- Math higher than Algebra I (2 units)

Science: 3 Carnegie units

- Biology I or its equivalent
- Science higher than Biology I (2 units)

Social Studies: 3 ½ Carnegie Units

- Units must include integrated courses of social sciences and humanities promoting civic competence.

Arts: 1 Carnegie unit

- Includes any one Carnegie unit (or two ½ units) of visual and performing arts course(s) meeting the requirements for high school graduation.

Advanced Electives: 2 Carnegie units

- Option 1: Foreign Language I and Foreign Language II
- Option 2: Foreign Language I and one unit from Option 3
- Option 3: (1) Any combination of an advanced level course above the required Carnegie units in: (a) English, math, science, computer science and/or (b) any Advanced Placement (AP), Academic or Career and Technical Dual Credit (DC), International Baccalaureate (IB) or Advanced International Certificate of Education (AICE) course. (2) Completion of any two-year Career and Technical course may count as one unit. Example: completion of both Health Sciences I & II will count as an advanced elective.

Technology or Computer Science Course: 1 Carnegie Unit

- A technology course is defined as one that emphasizes the use of technology as a productivity tool. Instruction should include utilizing various forms of technology to create, collaborate, organize, and publish information. The application of technology as a productivity tool, rather than specific hardware and/or software packages should be the focus of the course. A computer science course emphasizes computational thinking to solve problems. Courses will involve the study of computers and algorithmic processes, including their principles, their hardware and software designs, their applications, and their impact on society and should include focus on one or more of the following core concepts: computing systems, networks and the internet, data and analysis, algorithms and programming, and impacts of computing. Course equivalent or additional advanced elective may be acceptable for non-Mississippi residents.

Total Carnegie units: 18 ½ Carnegie Units**LEGAL RESIDENCE OF STUDENTS**

The University applies the definitions and conditions stated here as required by state of Mississippi law and promulgated by IHL Board of Trustees Policies and Bylaws (amended January 2014) in the classification of students as residents or non-residents for the assessment of fees. The student, however, is responsible for knowing and registering under his/her correct residential status. Requests for a review of residency classification should be submitted to the chief records officer (CRO).

Such requests must be accompanied by documentation that all residency requirements have been met by the last day to register or to add courses for the enrollment period as stated in the ASU University Catalog.

The following is the basis for determining the residential status for the purpose of enrolling at Alcorn State University.

Legal residence of a minor: For purposes of determining of whether a minor pays out-of-state or in-state tuition for attendance at Alcorn State University, the residence of a person less than 21 years of age is that of the father, the mother or a general guardian duly appointed by a proper court in Mississippi. If a court has granted custody of the minor to one parent, the residence of the minor is that of the parent who was granted custody by the court. If both parents are dead, the residence of the minor is that of the last surviving parent at the time of that parent's death, unless the minor lives with a general guardian duly appointed by a proper court of Mississippi, in which case his/her residence becomes that of the guardian.

A minor student who, upon registration at Alcorn, presents a transcript demonstrating graduation from a Mississippi secondary school and who has been a secondary school student in Mississippi for not less than the final four years of secondary school attendance shall not be required to pay out-of-state tuition. This policy shall not apply to the residence of a person as it relates to residency for voter registration or voting. See Miss. Code Ann., §37-103-7, as amended.

Legal residence of an adult: The residence of an adult is that of place where he/she is domiciled, that is, the place where he/she actually physically resides with the intention of remaining there indefinitely or of returning there permanently when temporary absent. See Miss. Code Ann., §37-103-13, as amended.

Removal of parents from Mississippi: If the parents of a minor who is enrolled as a Alcorn State University student move their legal residence from the State of Mississippi, the minor shall be immediately classified as a non-resident student; such a change in classification shall not affect the tuition to be charged upon completion of the semester in which the move takes place. See Miss. Code Ann., §37-103-11, as amended.

Residence Required: No student may be admitted to Alcorn State University as a resident of Mississippi unless his/her residence has been in the state of Mississippi preceding his/her admission. Residence shall be defined in Sections 37-103-7 and 37-103-13 unless excepted in Miss. Code Ann., §37-103-1 through 37-103-29.

Residency Petitions: Non-residents of Mississippi may petition the institutions for a change of residency classification.

A person who enters the state of Mississippi from another state and enters Alcorn is considered a non-resident, unless the person meets the residency requirements set out in “Residence of a Minor” and “Residence of an Adult” above. Provided, however, that any person who has attained 21 years of age and has thereafter actually established residency as defined within “Residence of a Minor” above and resided within the state of Mississippi for 12 consecutive months after attaining 21 years of age upon sworn affidavit and other representation, may petition the Office of Student Records of Alcorn State University for a change of residency classification for the purpose of fees and tuition assessment.

Alcorn may make reasonable inquiry into the validity of the petitioner’s claim. Such petition for change of residency must be made on or before the last day a student may register at Alcorn without penalty. (See Section 610 of IHL Board of Trustees Policies and Bylaws.)

Twelve months of residence required: No student may be admitted to any institution of higher learning as a resident of Mississippi unless his/her residence, as defined herein above, has been in the State of Mississippi for a continuous period of at least twelve months immediately preceding his/her admission.

Residence status of a married student: A married student may claim the residence of the spouse or may claim independent residence status under the same regulations, set forth above, as any other adult.

Children of parents who are members of the faculty or staff of Alcorn State University: may be classified as residents for the purpose of attendance at the institution where their parents are faculty or staff members. Miss. Code Ann., §37-103-9, as amended.

Military personnel assigned on active duty stationed in Mississippi: Members of the armed forces on extended active duty and stationed within the State of Mississippi, except those military personnel whose active duty assignment is for educational purposes, may be classified as residents, without regard to the residence requirement of 12 months, for the purpose of attendance at the University. Resident status of such military personnel, who are not legal residents of Mississippi, as defined above under LEGAL RESIDENCE OF AN ADULT, shall terminate upon their reassignment of duty in the continental United States outside the State of Mississippi.

Children of military personnel: Resident status of children of members of the armed forces on extended active duty shall be that of the military parent for the purpose of attending the University during the time their military parents are stationed within the State of Mississippi. It shall be continued through the time that military parents are stationed in an overseas area with last duty assignment with the State of Mississippi.

Resident status of minor children shall terminate upon reassignment under permanent change of station orders of their military parents for duty in the continental United States outside the State of Mississippi, accepting temporary training assignments en route from Mississippi.

Certification of residence of military personnel: A military person on active duty stationed in Mississippi who wishes to avail him/herself or his/her dependents of these provisions must submit: a certificate from his military organization showing the name of the military member; the name of the dependent, if for a dependent; a name of the organization, of assignment, and its address (may not be in the letterhead). The military member must be on active duty stationed in Mississippi on the date of registration at the state-supported institution of higher learning or junior college of the State of Mississippi.

The military member must not be on transfer orders. The signature of the Commanding Officer, the Adjutant, or the Personnel Officer, the unit of assignment with signer's rank and title is required. A military certificate must be presented to the Chief Records Officer of the state-supported institute of higher learning or junior college of the State of Mississippi each semester or trimester (or within ten days prior to) at registration each semester for the provisions hereof to be effective.

Aliens: All aliens are classified as non-residents, unless they claim residential status under the above regulations.

AUTHORITY TO SET TUITION AND WAIVER OF OUT-OF-STATE TUITION FOR NON-RESIDENTS WHO WERE BORN IN MISSISSIPPI AND ARE VETERANS OF THE ARMED FORCES

Per Section 612 of the IHL Policies and Bylaws, the Board of Trustees of State Institutions of Higher Learning prescribes the amount of tuition and fees to be paid by Alcorn students.

Except as otherwise provided in this subsection, the total tuition to be paid by residents of other states shall not be less than the average cost per student from appropriated funds. However, the tuition to be paid by a resident of another state shall be equal to the tuition amount established in the above paragraph if:

1. The non-resident student was born in the State of Mississippi, but subsequently relocated and resided outside the state as a minor under the care of the minor's father or mother, or both;
2. The non-resident student is a veteran who served in the Armed Forces of the United States;
3. The non-resident student is domiciled in Mississippi no later than six months after the non-resident student's separation from service, as evidenced by a Report of Separation from Military Service or other military discharge document, for the purpose of enrolling in a state institution of higher learning or a community/junior college.

REGISTRATION AND ADVISEMENT

No freshmen or transfer student should present himself at the University for Registration without a "letter of acceptance" from the Office of Admissions. After a student has been admitted, the University College is notified and information concerning New Student Registration is sent to each student. New Student Registration for students entering the University for the first time is conducted during separate occasions across the summer.

University Orientation is held at the beginning of each semester to help the new students transition and adjust and to make them feel a part of Alcorn State University. University Orientation is separate and distinct from New Student Registration.

To be sure that each student is properly advised, all freshman students must report to the University College for the assignment of an academic advisor. Freshmen and sophomores are advised by academic advisors in the University College. Students will also be assigned a Faculty Mentor. Transfer students must report to the University College for assignment of an advisor or the authorization to transfer to their major department. Once they have been properly assigned to a major department, appropriate departmental faculty advise the students. Students must obtain Undergraduate Student Career Plan forms and Curriculum Status Sheets from their advisors or Faculty Mentors to begin the registration process. Returning students who are currently enrolled may complete registration on the web. The Alcorn website is www.alcorn.edu. A pin number is required.

CHANGE OF PROGRAM

To add or drop a course the student must initiate a “change of program” with the Office of Student Records and have it approved by the academic advisor. A change of program must be submitted to the Records Office after being approved. All changes and alterations must be made not later than the date designed in the calendar as “last day for change of registration.” No student will receive credit for a course in which he/she is not officially registered.

ANY STUDENT WHO UNOFFICIALLY DROPS A COURSE WILL RECEIVE A GRADE OF “F.”

A STUDENT IS CONSIDERED OFFICIALLY REGISTERED AFTER HE/SHE HAS CLEARED PAYMENT OF FEES AT THE BUSINESS OFFICE AND RECEIVED A BILL RECEIPT STAMPED

PAID BY THE BUSINESS OFFICE. If a student finds that he/she cannot continue in the University, he/she may officially withdraw by securing a withdrawal application from the Counseling and Testing Center.

WITHDRAWAL

Any student who desires to withdraw from the University must adhere to the Satisfactory Academic Progression (SAP) policy. The SAP policy may be reviewed at the following web site: www.alcorn.edu/FinAid/SaPPolicy.html. Also, if a student withdraws from ALL courses before more than 60% of the time has elapsed in the semester, it will be determined if he/she “earned” all financial aid received from federal programs.

If the student did not earn the aforementioned aid, he/she will be informed of the amount that must be repaid and of the options for repayment. The student must submit an application for readmission if he/she plans to re-enroll.

Students must also process the appropriate “Statement of Clearance” issued by the Office of the Vice President for Student Affairs if living in the dormitory. Failure to comply with this regulation will result in the recording of failing grades in all courses for which the student is registered and the losing of any refund of fees to which he/she may otherwise be entitled.

CLASSIFICATION OF STUDENTS

- Freshmen:** All students who have 29 or fewer earned semester hours.
- Sophomores:** Students who have from 30 to 59 earned semester hours of passing work and a cumulative grade average of 2.0.
- Juniors:** Students who have from 60 to 89 semester hours of passing work and a cumulative grade point average of 2.0.
- Seniors:** Students who have 90 or more earned semester hours of passing work and a cumulative point average of 2.0.

DEGREES GRANTED

Alcorn State University offers courses of study leading to the awarding of the Associate of Science in Nursing, Bachelor of Arts, Bachelor of Science, Bachelor of Music, Bachelor of Science in Nursing, Master of Science, Master of Science in Education, Master of Business Administration, Executive Master of Business Administration, Master of Art in Teaching, and the Specialist in Education degrees.

DEGREES BY MAJOR

A major at Alcorn State University is defined as a sequence of courses leading to a specified degree. It includes a designated number of core courses, electives, and discipline-specific courses related to the designated degree.

Each major requires at least 122-124 credit hours. Required credit hours for the different majors offered at Alcorn State University range from 64 to 124 hours.

DEGREES OFFERED AT ALCORN STATE UNIVERSITY ARE:

Associate of Science in Nursing

Bachelor of Arts (in Mass Communication, English, History/Social Science, Music, Political Science/Pre-Law, Sociology, Social Work, and General Studies.)

Bachelor of Music

Bachelor of Science (in Biology, Chemistry, Mathematics, Math Education, Elementary Education, Psychology, Health and Physical Education, Recreation, Sport Management, Accounting, Agriculture, Applied Science, Computer Science, Robotics and Automation Technology, Computer Networking and Information Technology, Criminal Justice, Child Development, and Nutrition and Dietetics.)

Bachelor of Business Administration

Bachelor of Science in Nursing

Master of Arts in Teaching (in Elementary and Secondary Education)

Master of Science (in General Agriculture, Biology, Computer and Information Sciences, Biotechnology, Workforce Education Leadership and Applied Science)

Master of Science in Nursing

Master of Science in Education (in Elementary and Secondary Education)

Master of Business Administration (in Business Administration)

Specialist in Education (in Elementary Education)

Doctor of Nursing Practice

REQUIREMENTS FOR A BACHELOR'S DEGREE

1. Generally, candidates for the bachelor's degree must earn one hundred twenty credits in the various curricula, unless otherwise recommended by the department head and school dean, and approved by the Vice-President for Academic Affairs.
2. Credits may be acquired by extension, correspondence, and examination, but such credits are not to exceed one-fourth of the requirements for graduation. Such credits are further governed by the following regulations:
3. Credits by correspondence are limited to 15 semester hours, acquired at the rate of three credits per semester while engaged in full-time employment, and six credits per semester otherwise. A student may not acquire correspondence credits while in residence.
4. Credits by examination are limited to 15 semester hours of credit.
5. Credits by extension are limited to three per semester while employed in a full-time job and six per semester otherwise.
6. No courses to be counted toward meeting the course requirements in the major field may be taken through correspondence.

7. The student must be prepared to present the appropriate test fee, as described in the CLEP registration bulletin, to the Counseling and Testing Center.

ADVANCED PLACEMENT PROGRAM

Advanced Placement (AP) examinations administered by The College Board will receive three hours of credit for a score of 3 and may receive six hours of credit for scores of 4 or 5. (An additional one-hour laboratory credit may be awarded for science courses which require a laboratory component. Thus, the total credit awarded could be up to eight credit-hours for courses with an associated laboratory component). The amount of credit awarded will be recommended by the department and approved and recorded by the Office of Student Records. A maximum of 30 semester hours of undergraduate credit may be earned from the following sources: AP Tests, College Level Examination Program (CLEP), and credit by examination.

College Level Examination Program

Placement and credit are awarded for College Level Examination Program (CLEP) general and subject examinations, as follows:

CLEP General Examinations

ASU grants credit for CLEP General Examinations in English Composition, Natural Science, Mathematics, Social Science, and Humanities. A minimum score of 500 is required in each section. Use of the above in University degree programs is subject to approval of the department chair and the Vice President for Academic Affairs.

A student who has not earned level credit in the subject area in which he/she seeks credit can take the CLEP subject area examination for advanced placement and college credit. CLEP credit may not be used to remove "F" grades. Credit will be awarded for scale scores of 50 or above. The appropriate department will have the final determination in the amount of credit awarded with the approval of the school dean. Under this program, students are restricted to 30 semester hours, with not more than six hours or two courses in one subject matter area. (It is understood that the 30 hour limit includes all credit earned by examination). The Records Office will be responsible for determining a student's eligibility to earn credit through these examinations.

Other Credit-by-Examination Policies

A student must earn 12 hours at Alcorn State University before credit-by-examination may be recorded on the student's transcript. The total number of hours one may earn in any of the Credit-by-Examination Programs is 30. For students enrolled in Associate degree programs, the maximum number of hours earned through credit-by-examination is 15. Credit earned through the use of examination will be included for the purpose of transfer entrance.

With the approval of the Vice President for Academic Affairs, departments may grant credit by examination in lieu of class enrollment for courses where no CLEP subject area examination is offered. The following guidelines should be adhered to:

- The examination must be given by the department in which the course is offered.
- The department chair must be assured that the student has had some formal or informal learning experience that has prepared him/her for the examination.
- The student must make application to the chairman of the department in which the course is offered. Upon approval, the student will pay a \$15.00 per credit hour examination fee in the Business Office. The Business Office issues the student a receipt that he/she presents to the department chairman, who will administer the examination.

- If the student passes the examination, the Records Office is notified. This notification includes the name of department, course number, course title, grade, semester hours, date examination was taken and evidence that the examination fee was paid.
- Credit toward a bachelor's degree may be awarded to those veterans who otherwise meet regular entrance requirements and present either form D.D. 295 or D.D. 214 indicating that they have experienced continuous active duty for at least 90 days. This credit is limited to subject matter that can be substituted for University ROTC credits and/or for training in formal service schools. Credit will further be determined on the basis of recommendations published in A Guide to the Evaluation of Educational Experiences in the Armed Forces. Such credit will be limited to 30 hours.

DEPARTMENTAL EXAMINATION OR WRITTEN SENIOR PROJECT

All prospective candidates for graduation must either pass a departmental examination or complete a written project in their major field. Departmental personnel will determine the exact nature of this requirement. It is the responsibility of the department chair to see that this requirement is met and to certify to the Records Office of this fact at least 12 days prior to scheduled commencement exercises.

GRADE POINT AVERAGE

A minimum grade point average of at least 2.0 ("C") is required in one's major field and by the University for graduation.

RESIDENCE

At least 31 semester hours must be taken in full-time residence at this institution in senior level courses and within two semesters prior to the student's graduation. Exceptions are made for students taking pre-professional courses of study for three years; degrees are then granted upon successful completion of one year of professional study.

Thirty-one semester hours taken in 30 weeks of summer school within a seven-year period satisfies the residence requirement as stated above.

At least 20 semester hours of the residence requirement must be taken in the student's major field.

COURSE LEVELS

Credits must be earned in at least 60 semester hours of junior and senior level courses to complete graduation requirements. At least 40 semester hours of credit in major and related fields must be taken in junior and senior level courses.

CONTINUITY OF PROGRAM

If a student drops out of the University for a year or more and later returns to graduate, he/she must meet the requirements in effect for the class in which he/she expects to graduate. The University reserves the right to change course requirements for the degree as long as sufficient notice has been given.

COURSES AT OTHER INSTITUTIONS

Students in attendance at Alcorn State University who wish to take courses in another approved institution may do so providing they have obtained permission from the chair of the appropriate department, the school dean, and the chief records officer.

Any course taken elsewhere will be considered as part of the total credit load for that semester at Alcorn State. Students must earn a final grade of C or above in course work taken at the approved transferor institution, otherwise the course will not transfer for (program required) credit to Alcorn.

SCHOLASTIC HONORS

President's Scholars:

President's scholars are those students who earn a grade-point average of 4.00 for any given semester in which they carry at least 12 semester hours of academic work. These students are given special recognition, annually, by the President of the University.

Dean's List:

The Dean's list is composed of those students who have earned a grade point average of 3.50 or better for a semester's work consisting of not less than 12 semester hours.

DEGREES WITH HONORS

The bachelor's degree will be conferred with "distinction" based upon completion of a minimum of 60 hours earned in residence at Alcorn State University provided, first, that a candidate's scholastic average over the entire period of his/her attendance at Alcorn State University is no less than "B" and, second, that this composite scholastic average (including both the work done at Alcorn State University and at any other institution attended) be no less than "B." All candidates for honors must qualify one semester prior to graduation. Honors are conferred as follows:

Cum Laude	Those candidates who attain a cumulative average of at least 3.2.
Magna Cum Laude	Those candidates who attain a cumulative average of at least 3.5.
Summa Cum Laude	Those candidates who attain a cumulative average of at least 3.8 with no grade below "C".

The Associate degree will be conferred with "Distinction" based upon completion of a minimum of 35 semester hours in residence, provided that a candidate's scholastic average over his/her entire period of attendance at Alcorn State University be no less than "B" and that his/her composite scholastic average (including both the work done at Alcorn State University and at any other institution attended) be no less than "B." All candidates for honors must qualify one semester prior to graduation. Honors distinctions are as follows:

With Honors	Those candidates who attain a cumulative average of at least 3.2.
With High Honors	Those candidates who attain a cumulative average of at least 3.5.
With Highest Honors	Those candidates who attain a cumulative average of at least 3.8 with no grade below "C."

CLASS ATTENDANCE REGULATIONS

Regular and punctual class attendance is required of all students enrolled at Alcorn State University. Class attendance regulations apply to all types of classes (e.g., lecture, laboratory, or practicum) as well as to all modes of instruction (e.g., face-to-face or online). Instructors record absences as they occur. Instructors and departments may set individual policies that operate within the parameters set by the University. Instructors will clearly delineate individual policies in course syllabi distributed to each student during the first week of class. Students must present official documentation for an excuse to the instructor, who will make the decision on the classification and acceptability of the excuse. Disagreements as to acceptable excuses are adjudicated by the Dean of the School.

75% Minimum

No matter how justifiable the circumstances for class absences, students must attend a minimum of 75% of the meetings for a given course in order to be eligible to receive a passing grade.

If a student accumulates absences in a course in excess of 25% of the scheduled class meetings for a semester or summer session and does not officially withdraw from the course, he/she receives the grade of "F" in that course unless the circumstances are deemed extenuating by the Provost. Except for absences incurred while representing the University in a required University event (see below), excused absences are counted as absences when computing the 75% minimum.

Excused Absences

Absences documented by official sources (i.e. medical or death of family member) are excused. Excused absences are counted as absences when computing the 75% minimum. An excused absence allows the student to make up the work and receive a grade for that work if the work is completed within two weeks after the absence. The student is responsible for obtaining assignments, scheduling make-up work, and submitting assignments to the instructor within the two week period after the absence. Periods of absence in excess of one week must be approved and excused by the Office of the Provost.

Unexcused Absences

Students are allowed one hour of unexcused absence for each semester hour of a course. Instructors may, at their discretion, set class policies that lower grades for unexcused absences incurred above the number of unexcused absences allowed.

Excessive Absences

Instructors should report student absences via the appropriate reporting system. The University reserves the right to withdraw a student who has missed more than 25% of the scheduled class meetings, and instructors are encouraged to submit names of students with excessive absences to the Office of Academic Affairs. Whenever students miss classes, they should work directly with their instructors to make up work. Students are not relieved of responsibilities to meet all course requirements and complete all class assignments.

Students who do not attend within the first two weeks of class are reported to the Office of Academic Affairs for financial aid reporting. See Non-Attendance No Show Purged Form section below.

Late Registration and Financial Aid

Students should begin attending class on the first day of the semester whether or not registration is complete. Once the Office of the Student Records completes registration and declares the rolls finalized, no student whose name is not on the official roll will be allowed in class.

Non-Attendance No Show Purged Form

Students who complete the registration process are required to attend class before receiving Federal Student Aid. Those not attending class before the deadline will be deleted from the rolls as a No-Show for non-attendance. To be reinstated on the roll, the student must attend class and present to the instructor the Non-Attendance Form for the instructor's verification of attendance. Students should print out one Non-Attendance Form for each class of non-attendance. Students must then submit the signed form to Office of Academic Affairs. Applicable forms, further instructions, and information about deadlines are available at the Financial Aid Forms webpage.

Tardiness

Instructors may, at their discretion, set policies that consider students absent when they arrive very late to or depart very early from class. All such policies must be approved by the chair of the department and maintained on record in the department. The average normal load carried by a student is determined by the department in which he/she is registered and by his/her scholarship. The minimum amount of work for which a full-time student may register is 12 semester hours, unless he/she is a senior and needs less than 12 hours to complete requirements for his/her degree. Students in any department may be required to take fewer semester hours than the average if such is warranted by their scholastic standing.

THE MAXIMUM LOAD AT ANY TIME IS 19 SEMESTER HOURS

Only students with a cumulative grade point average of 3.00 or more can take 19 semester hours, unless 19 is the normal load for a student.

Students may be permitted to take 20 hours per semester if the 20th hour is an ensemble, i.e., marching band, concert choir, with ensemble, etc.

Students on probation are expected to carry a reduced load. If they are on probation, they may not take more than 13 semester hours without the approval of the Vice President for Academic Affairs. The course load of students who work will be assessed by their cumulative grade point average and number of hours worked.

Students may earn a maximum of 15 credit hours during the summer school term, provided these 15 credit hours are the ONLY HOURS that are needed for completion of degree requirements with the exemption of student teaching. The total hours must be divided between both summer sessions of school. Not more than nine hours per session will be allowed.

An authorization submitted by the student’s advisor, and approved by the department chair, school dean, and/or Vice President for Academic Affairs is required for additional credit hours.

No academic credit will be accepted from concurrent enrollment at other institutions while enrolled at Alcorn State University without prior approval of an advisor, the department head, and the school dean. The maximum number of hours, including concurrent enrollment, is 19.

SPECIAL NOTE: It is necessary for the average student to spend approximately three hours of his/her time in “effort” each week for each semester hour of credit carried. This amount of time includes lectures, laboratories, preparations, etc. Advisors may be consulted regarding this matter.

GRADING SYSTEM

Credits are expressed in terms of semester hours with alphabetical grades and numerical grade-points to indicate the quality of the work.

These grades cover the work of the entire semester and are based upon the average of daily work, the final examination, and other written work. Characterization of letter grades by plus and minus signs is not authorized.

A	Excellent	4 grade-points per semester hour
B	Good	3 grade-points per semester hour
C	Average	2 grade-points per semester hour
D	Poor but passing	1 grade-point per semester hour
F	Failure	0 grade-points per semester hour
I	Incomplete (unfinished work)	
WP*	Withdrawal while passing	
WF*	Withdrawal while failing	
P	Pass (Semester hours are awarded, but no quality points are given)	

*If the student is passing when the withdrawal occurs, such action will not affect his/her grade point average; if he/she is failing, the same semester hours involved will be considered his/her grade point average, i.e., will cause the grade point average to be lowered.

*If the student is passing when the withdrawal occurs, such action will not affect his/her grade point average; if he/she is failing, the same semester hours involved will be considered his/her grade point average, i.e., will cause the grade point average to be lowered.

A student who makes grades as follows will receive the grade-points indicated:

Class	Grade	Hours	Points
English	C	3	6
History	B	3	9
Health	A	3	12

Education	D	2	2
Biology	B	4	12
Mathematics	A	3	12
Physical Education			
Total		19	55

The grade point average is 2.89 – the quotient of 55 divided by 19 – which represents an overall average above “C.” The term “Incomplete” is used when a student is absent from examination because of sickness, emergency absence due to death in the family, or away from campus a great deal for justifiable reasons. Otherwise, the instructor is required to assign for each student a definite grade based upon the work actually accomplished, irrespective of the circumstances that may have contributed to the results achieved.

A student whose work has been marked “Incomplete” must remove the mark within 60 days after the beginning date of the student’s next enrollment in residence. An incomplete grade must be removed within 13 months after the grade is recorded even if the student fails to enroll.

If the “Incomplete” is not removed within this period, the student will receive a grade of “F.” A grade other than an incomplete may be changed only if an error of calculation or recording as verified by the official roll book. The department chair, school dean, and the Vice President for Academic Affairs must approve all changes of grades.

ACADEMIC AND FINANCIAL AID PROBATION AND RETENTION POLICIES

Federal Rules and Regulations mandate that students who receive student financial aid under programs authorized by Title IV of the Higher Education Act, as amended, must maintain satisfactory progress in their course of study.

Students who attend Alcorn State University must meet the following conditions:

GRADES

An undergraduate student must maintain satisfactory academic progress. Any student whose grade point average falls below 2.0 will be placed on financial aid probation. The academic consequences governing a grade point average below 2.0 includes: Warning (1st Semester); Probation (2nd Semester); and Suspension (3rd Semester).

Students who are placed on academic or financial aid probation will be required to carry a reduced load of academic and extracurricular activities. They are also expected to make a 2.0 or higher average each semester during the probation period. Those students who fail to earn at least a “C” or a 2.0 average during the probation period will be suspended for one regular semester.

Students who fail to maintain satisfactory academic progress may submit an appeal to the Financial Aid Office any special or mitigating circumstances that they believe should be considered. Students submitting successful appeals will be placed on Financial Aid Probation and allowed to receive federal student aid for one semester. Each successful appeal will include academic requirements that must be met in order to receive aid beyond the one semester.

Students denied aid for failure to meet these Satisfactory Academic Progress requirements may re-establish eligibility once they meet the requirements. An undergraduate student can be on financial aid probation a maximum of three (3) times during his/her educational tenure.

A student having one suspension as a result of academic failure who warrants a second suspension is suspended for one calendar year unless circumstances warrant earlier readmission.

All applications for readmission should be filed with the Director of Admissions. The University Admission Committee determines all readmissions. Readmissions after academic suspension are determined on an individual basis.

INCREMENTAL PROGRESS

In addition to meeting grade requirements, students must make normal progress toward their degree objective. Undergraduate students must average passing 67% of the hours they attempt at Alcorn State University. Acceptable grades are A, B, C and D.

Grades of I, F, Audit and W will not be accepted as passing grades. This is not true for Pre-Nursing and Nursing majors. Grades less than C (D, F, I and WF) will not be accepted as passing. If the student does not meet the incremental progress standard during the probation term, financial aid will be terminated. However, the student has the right to appeal (see the process for appealing in this handbook under Satisfactory Academic Progress Standards).

TIME FRAME

Undergraduate students are no longer eligible to receive federal student aid once the total hours attempted exceeds 192 hours (including hours transferred). Students, upon completion of their first Bachelor's Degree Program, may be allowed up to 60 additional hours to complete a second Bachelor's Degree.

AUDIT COURSES

Courses taken for audit do not meet degree requirements and are not eligible to meet enrollment requirements to receive aid. Change of classes to audit will be treated as a withdrawal and be subjected to any changes of enrollment status policies. Courses enrolled in for audit may not be treated as credit courses. No grades will be given for credit.

INTERMEDIATE COURSES

Students may be advised to enroll in a maximum of three credit hour intermediate classes, namely: Intermediate English, Intermediate Math, and Intermediate Reading. Students may also be advised to enroll in one credit hour year-long Survival Skills course. Intermediate courses are not used to meet credit hour requirements for graduation.

REPEATS

Repeated courses enable the student to achieve a higher cumulative GPA. Repeating courses adversely affects the student's ability to meet the required progression standards by increasing total hours attempted.

INCOMPLETES

Incomplete grades will only be used when a student is absent from examination because of illness, death in the family, and other justifiable reasons, including failure to complete a major class project.

Otherwise, the instructor is required to assign for each student a definite grade based upon the work actually accomplished, irrespective of the circumstances that may have contributed to the results achieved. A student whose work has been marked "Incomplete" must remove the mark within 60 days after the beginning date of the student's next enrollment in residence.

An incomplete grade must be removed within 13 months after the grade is recorded even if a student fails to enroll. If the "Incomplete" is not removed within the required period, the student will receive a grade of "F", unless an extension is requested by the professor on record. Incompletes may be given in courses that have a standardized exit test based upon the policies for issuing incompletes made by the testing committee.

Incompletes given for any other reason must be approved by the department chair and school dean. In order for an instructor to issue an incomplete grade, the justification must be given on the incomplete grade report form, approved by the department chair or school dean, and submitted electronically to the Records Office.

A grade other than an incomplete may be changed only if there is an error of calculation or recording as verified by the official roll book. The department chair, school dean, and the Vice President for Academic Affairs approve all change of grades.

For financial aid purposes, an incomplete will not be factored into the Satisfactory Academic Progress Standards until replaced with a letter grade.

APPEALS

All students will have the right to appeal any suspension of their financial aid. Exceptions to suspension of financial aid may be made in cases of mitigating circumstances such as a death in the immediate family, personal injury, illness, etc., as determined by the Department of Student Financial Aid and the Student Financial Aid Appeals Committee. Appeals should be in writing, using the ASU appeals form provided by the ASU Financial Aid Office.

COST ATTENDANCE

The Southern Association of Colleges and Schools Commission on Colleges has a cost of attendance.

REFUNDS

Refund of Board

Refunds are made on board charges at any time during the semester if a student misses his/her meals for seven consecutive days due to emergency leaves or official withdrawals. Students who are involved in an off-campus directed teaching course are not charged for board during this period of absence.

Refund of Fees

Students who withdraw from the University in good standing are entitled to a refund of all fee (except registration) according to the following schedule:

First official day of class	90%
Between second day and two weeks	80%
Between two and four weeks	60%
Between four and six weeks	40%
After six weeks	No Refund

Students who withdraw unofficially and return weeks or months later to officially withdraw and claim refunds are not entitled to refunds.

ACADEMIC CREDIT

One credit hour is awarded for fifty minutes of classroom instruction per week. A three-hour course requires one hundred fifty minutes of classroom instruction per week.

NUMBERING SYSTEM

A number containing three digits designates each course. The first digit indicates the year in which the course is offered:

100 Level courses	Freshman Year
200 Level courses	Sophomore Year
300 Level courses	Junior Year
400 Level courses	Senior Year
500 Level courses and above	Graduate

The last digit indicates the semester in which the course is offered: an odd number indicates a first semester course; an even number represents a second semester course. The middle digit has no significance but is employed to avoid duplication of course numbers. Opposite the course title are three digits separated by hyphens. The first digit indicates the number of lecture hours per week required in the course.

The second digit indicates the number of laboratory hours required per week in the course, and the third digit indicates the number of semester hour's credit allowed per semester in the course. As an example, BI 132 BOTANY...2-4-4 indicates that two hours of lecture and four hours of laboratory will be required per week, and four semester hours credit may be earned for the course. When variable credit may be earned in a course, the amount is enclosed within parentheses, i.e., 2-((2-4)-(2-3) indicates that two lecture hours per week will be required, from two to four hours laboratory per week will be required, and from two to three semester hours credit may be earned in the course. Courses offered by university departments are designated by the following symbols:



**ANNUAL NOTIFICATION OF RIGHTS UNDER
Family Educational Rights and Privacy Act (FERPA)**

The Family Educational Rights and Privacy Act (FERPA) affords eligible students certain rights with respect to their education records. (An “eligible student” under FERPA is a student who is 18 years of age or older or who attends a postsecondary institution at any age.) These rights include:

1. The right to inspect and review the student's education records within 45 days after the day Alcorn State University (“University” or “Institution”) receives a request for access. A student should submit to the school official (Registrar and Director of Student Records) a written request that identifies the record(s) the student wishes to inspect. The school official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the school official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.
2. The right to request the amendment of the student’s education record(s) that the student believes is inaccurate, misleading, or otherwise in violation of the student’s privacy rights under FERPA.

A student who wishes to ask the University to amend a record should write the University official responsible for the record, clearly identify the part of the record the student wants changed, and specify why it should be changed.

If the University decides not to amend the record as requested, the University will notify the student in writing of the decision and the student’s right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

3. The right to provide written consent before the University discloses personally identifiable information (PII) from the student's education records, except to the extent that FERPA authorizes disclosure without consent.

The University discloses education records without a student’s prior written consent under the FERPA exception for disclosure to school officials with legitimate educational interests. A school official typically includes a person employed by the University in an administrative, supervisory, academic, research, or support staff position (including law enforcement unit personnel and health staff); a person serving on the Board of Trustees of the Mississippi Institutions of Higher Learning; or a student serving on an official committee, such as a disciplinary or grievance committee. A school official also may include a volunteer or contractor outside of the University who performs an institutional service or function for which the school would otherwise use its own employees and who is under the direct control of the school with respect to the use and maintenance of PII from education records, such as an attorney, auditor, campus bookstore operator, or collection agent or a student volunteering to assist another school official in performing his or her tasks. A school official typically has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibilities for the University.

Upon request, the University also discloses education records without consent to officials of another school in which a student seeks or intends to enroll.

4. The right to file a complaint with the U.S. Department of Education concerning alleged failures by the University to comply with the requirements of FERPA. The name and address of the office that administers FERPA is:

Family Policy Compliance Office
U.S. Department of Education
400 Maryland Avenue, SW
Washington, DC 20202

The disclosures listed below may be made by the University without consent. FERPA permits the disclosure of PII from students' education records, without consent of the student, if the disclosure meets certain conditions found in the FERPA regulations. Except for disclosures to school officials, disclosures related to some judicial orders or lawfully issued subpoenas, disclosures of directory information, and disclosures to the student, FERPA regulations require the University to record the disclosure(s). Eligible students have a right to inspect and review the record of disclosures. *The University may disclose PII from the education records without obtaining prior written consent of the student —*

To Parents

- To parents of a student regarding the student's violation of any Federal, State, or local law, or of any rule or policy of the school, governing the use or possession of alcohol or a controlled substance if the school determines the student committed a disciplinary violation and the student is under the age of 21.
- To parents of an eligible student if the student is a dependent for IRS tax purposes.

To Institutional Requestors

- The final results of a disciplinary proceeding, as allowed by FERPA, if the school determines the student is an alleged perpetrator of a crime of violence or non-forcible sex offense and the student has committed a violation of the school's rules or policies with respect to the allegation made against him or her.
- To other school officials, including teachers, within the University whom the school has determined to have legitimate educational interests. This includes contractors, consultants, volunteers, or other parties to whom the school has outsourced institutional services or functions, provided that certain conditions listed in the FERPA regulations are met.
- In connection with financial aid for which the student has applied or which the student has received, if the information is necessary to determine eligibility for the aid, determine the amount of the aid, determine the conditions of the aid, or enforce the terms and conditions of the aid.
- Information the school has designated as "directory information."
- To organizations conducting studies for, or on behalf of, the school, in order to: (a) develop, validate, or administer predictive tests; (b) administer student aid programs; or (c) improve instruction.

To Officials of Another School

- To officials of another school where the student seeks or intends to enroll, or where the student is already enrolled if the disclosure is for purposes related to the student's enrollment or transfer.

To Governmental Actors of for Health/Safety

- To authorized representatives of the U.S. Comptroller General, the U.S. Attorney General, the U.S. Secretary of Education, or State and local educational authorities, such as the Board of Trustees of State Institutions of Higher Learning, responsible for supervising the State-supported education programs. Disclosures under this provision may be made in connection with an audit or evaluation of Federal- or State-supported education programs, or for the enforcement of or compliance with Federal legal requirements that relate to those programs.

These entities may make further disclosures of PII to outside entities that are designated by them as their authorized representatives to conduct any audit, evaluation, or enforcement or compliance activity on their behalf.

- To comply with a judicial order or lawfully issued subpoena.
- To a victim of an alleged crime of violence or non-forcible sex offense regarding the final results of a disciplinary proceeding with respect to that alleged crime or offense, as allowed by Federal and State law.
- To appropriate officials in connection with a health or safety emergency, subject to certain conditions set out in the FERPA regulations.
- To accrediting organizations in order to carry out their accrediting functions.



**ANNUAL NOTICE OF DIRECTORY INFORMATION
Family Educational Rights and Privacy Act (FERPA)**

The Family Educational Rights and Privacy Act (FERPA), a Federal law, requires that Alcorn State University, with certain exceptions, obtain your written consent prior to the disclosure of personally identifiable information from your education records. However, the University may disclose appropriately designated “directory information” without written consent, unless you have advised the University to the contrary in accordance with our Directory Information Opt-Out procedures. The primary purpose of directory information is to allow the University to include information from your education records in certain publications. Examples include:

- A playbill, showing your role in a drama production;
- The annual yearbook;
- Honor roll or other recognition and activity lists;
- Graduation programs; and
- Sports activity sheets and press releases showing weight and height of team members.

Directory information, which is information that is generally not considered harmful or an invasion of privacy if released, can also be disclosed to outside organizations without a student’s prior written consent. Outside organizations include, but are not limited to, companies that manufacture class rings or publish yearbooks. If you do not want the University to disclose any or all of the types of information designated below as directory information from your education records without your prior written consent, you must notify the Office of Student Records in writing. The University has designated the following information as directory information:

- | | |
|--|---|
| ____ Name | ____ Address |
| ____ Photographs | ____ Telephone listing |
| ____ Date of birth | ____ Permanent or home address |
| ____ Alcorn e-mail address | ____ Participation in officially recognized activities and sports
(band/athletics) |
| ____ Weight / height (student-athletes only) | ____ Enrollment status (e.g. full-time, part-time) |
| ____ Classification/academic class level
(e.g. sophomore) | ____ Expected degree(s) and/or degrees(s) earned |
| ____ Student’s major field of study | |

**Office of Student Records
Dr. Tracee T. Smith, Registrar and Director of Student Records
601-877-6170 | records@alcorn.edu**

Specifically, Students, to complete the opt-out provision you must physically visit the Office of Student Records to complete a form inclusive of below:

STUDENT REQUEST TO OPT-OUT OF DIRECTORY INFORMATION

FROM: STUDENT

TO: ALCORN STATE UNIVERSITY

I request the withholding of the following personally-identifiable information designated as Directory Information under FERPA. I understand that upon submission of this Form, the information checked cannot be released to third parties without my written consent or unless Alcorn State University is required by law or permitted under FERPA to release such information without my prior written consent; and that the checked directory information will not otherwise be released from the time the University receives my Form until my opt-out request is rescinded.

CHECK HERE TO OPT OUT OF **ALL** DIRECTORY INFORMATION IDENTIFIED BELOW

or

CHECK THE INDIVIDUAL BOXES BELOW TO SELECTIVELY OPT-OUT OF INFORMATION SHARING

- Name
- Address
- Photographs
- Telephone listing
- Date of birth
- Permanent or home address
- Alcorn e-mail address
- Participation in officially recognized activities and sports (band/athletics)
- Weight / height (student-athletes only)
- Enrollment status (e.g. full-time, part-time)
- Classification/academic class level (e.g. sophomore)
- Expected degree(s) and/or degrees(s) earned
- Student's major field of study

Signature: _____ Date _____

Witnessed by Dr. Tracee T. Smith, Registrar and Director of Student Records or agent

ACADEMIC PROGRAMS



UNIVERSITY COLLEGE

GLOBAL PROGRAMS

**PRE-PROFESSIONAL AND HONORS
CURRICULUM PROGRAMS**

UNIVERSITY COLLEGE

Valerie Thompson, Ph.D., Dean

Lanier Hall, 2nd Floor

Telephone: (601) 877-6226

The University College provides the General Education Core Curriculum for all entering freshmen and transfer students. The remaining schools are composed of academic departments, each of which offers more advanced study in one or more major academic fields of study leading to a bachelor's degree. The University College is the component of the University responsible for fulfilling the University's goals of: (1) preparing first-year students with general knowledge in the areas of English and writing, creative arts, social sciences, natural and physical sciences, and mathematics (2) providing diversification of educational programs to accommodate students with varying levels of potential for achievement, and (3) preparing effective programs and services for students in the areas of advisement, counseling, academic assessment, tutoring, and instructional methodologies.

The fundamental goal of the University College is to provide students who matriculate at the University with services, activities, and programs which will maximize their chances of success upon entry into a program of study in a selected academic department. To accomplish this goal, the University College:

1. Serves as the initial point of entry for all undergraduate students, both freshmen and transfer, enrolling in the institution for the first time.
2. Maintains general education and developmental education programs commensurate to the expressed and determined needs of students.

It is the responsibility of the University College to:

1. provide students with detailed orientation to collegiate life at the University and its attending stipulations;
2. assess each student's academic and personal development status upon entry;
3. provide each student with the appropriate program(s), services, and activities within and outside the University College that will meet identified needs to the extent that academic personal success is maximized;
4. monitor the progress of each student on a regular and constant basis;
5. make adjustments in student's program based on observations of academic progression;
6. recommend students to their selected major department and school upon completion of the general core;
7. evaluate annually all programs, academic support services, and appropriate revisions.

All undergraduate students entering the University for the first time and transfer students, who have not met the requirements for transfer to a major department and school, comprise the student population of the University College.

To exit the University College, a student must have completed all required General Education Core courses or have no more than six (6) hours pending.

GENERAL EDUCATION CORE

Each candidate for graduation must be able to demonstrate proficiency in the areas of English (writing), creative arts, mathematics, natural science and social science.

The General Education Core is designed to meet this purpose. These courses must be distributed as follows:

ENGLISH (6 hours)		Hrs.
EN 111	Composition I	3
EN 112	Composition II	3
EN 191	Honors English	3
EN 192	Honors English	3
CREATIVE ARTS (9 hours) - Chosen from the following courses:		
AR 214	Art Appreciation	3
EN 213	Studies in Literature	3
EN 214	Special Topics in Literature	3
CO 103	Social Media	3
HO 291	Sophomore Honors Colloquium	3
HO 292	Junior Honors Colloquium	3
HU 201	Humanities	3
HU 202	Humanities: Black Cultural Heritage	3
MU 213	Music Appreciation	3
SA 223	Oral Communication	3
SA 245	Acting	3
SOCIAL SCIENCES (6 hours) - Chosen from the following courses:		
EC 201	Principles of Economics I	3
EC 202	Principles of Economics II	3
ED 200	Social Studies/Multicultural (Elementary and Secondary Teacher Education majors must enroll in this course.)	3
GT 101	American Government I	3
GT 102	American Government II	3
HI 111	World Civilization I	3
HI 112	World Civilization II	3
HI 191	Honors World Civilization I	3
HI 192	Honors World Civilization II	3
HI 225	United States History I	3
HI 226	United States History II	3
PH 132	General Psychology	3
PH 192	Honors General Psychology	3
SS 111	Social Institutions: Their Nature and Change	3
SY 235	General Sociology	3
NATURAL SCIENCES (6 - 8 hours including lab) - Chosen from the following courses:		
BI 111	Introduction to Biology I	3

BI 112	Introduction to Biology II	3
BI 113	Introductory Environmental Biology/Ecology	3
BI 121	General Zoology I	3
BI 122	General Zoology II	3
BI 125	General Biology I	3
BI 126	General Biology II	3
BI 191	Honors Biology I	3
BI 192	Honors Biology II	3
BI 335	Human Anatomy and Physiology I	3
BI 333	Human Anatomy and Physiology II	3
CH 121	General Chemistry I	3
CH 122	General Chemistry II	3
PY 111	Physical Science I	3
PY 112	Physical Science II	3
MATHEMATICS (3 - 5 hours) - Chosen from the following courses:		
MA 121	College Algebra I	3
MA 121	College Algebra II	4
MA 132	Trigonometry	3
MA 135	Pre-Calculus	5
MA 181	Calculus I with Analytical Geometry	4
MA 191	Honors Mathematics	3
UNIVERSITY ORIENTATION		
**UL 101	University Life	1

**Students who participated in the Summer Developmental Program (SDP) must enroll in and pass GC 102 and GC 103 to receive credit for UL 101.

General Education Core Curriculum Competencies

1. Writing

Students should be able to read intelligently and make effective use of writing in the English language. Students should be able to generate, revise, edit, and proofread drafts; critique their own and others' written work; employ the syntax, grammar, punctuation, and spelling of standard written English; and work cooperatively and effectively with others, and when appropriate, to produce written texts that reflect the students' ability to craft a persuasive and coherent argument based on sound logical reasoning.

2. Mathematics and Quantitative Reasoning

Students should be able to interpret and solve problems using numerical data, apply geometric principles when appropriate, estimate mathematical relationships, make inferences, obtain exact results, and recognize when to apply mathematical methods to solve problems encountered in their daily lives.

3. Research Skills

Students should be able to perform searches, annotate and document sources, and conduct research projects using both primary and secondary resources, including books, journals, databases, Websites, and other research tools pertinent to the topic of investigation. Students will thus have acquired the ability to use information systems effectively and proficiently, enabling them to pinpoint, evaluate, and master the content of any knowledge base needed.

4. The Natural Sciences

Students should be able to use the scientific method in problem solving and to recognize the logical relationship between the physical and chemical constituents that come together to form the essence of living and non-living systems.

5. History

Students should recognize historical events that have shaped human civilization; cite the origins, structures, and dynamics of individual and group behavior; demonstrate an understanding of the physical, biological and social forces which influence individual and group behavior, and explain the philosophical and scientific methods used to study these events, institutions, and processes.

6. The Humanities and Arts

Students should be able to articulate, orally and in writing, the major ideas, trends, and movements of the specialized areas in the humanities and arts while considering the interconnection between these disciplines and their context in modern culture. Students should be able to distinguish between facts and opinions, distinguish between inferences and assumptions, evaluate the quality of evidence in arguments and recognize fallacies in logic, consider questions from multiple points of view.

GLOBAL PROGRAMS

Dovi Alipoe, Ph.D., Director

Multicultural and International Affairs Bldg.

Telephone: (601) 877-6533

Fax: (601) 877-4189

Alcorn State University has emphasized international education and spearheaded international development for years. The University established a formal Office to serve as a central unit for international affairs. The mission of the Office is to facilitate global engagement through the infusion of relevant international content, activities, and knowledge to enhance the global competence of stakeholders. The Office coordinates activities in the following major areas: (1) long-term study abroad for college credit and short-term (non-credit) study tours; (2) technical assistance in international development; (3) scientific cooperation/faculty and staff exchange programs; (4) international students, scholars, and visitors; and (5) international trade capacity building. The Office of Global Programs collaborates with academic and non-academic units on campus as well as off-campus partners to achieve its mission.

Global Studies Enhancement. The Office of Global Programs coordinates the Enhancement at Alcorn State University. The interdisciplinary program is designed to “add-value” to the student’s specific undergraduate degree program(s) by integrating global competence and knowledge into the student’s disciplinary training. The program encompasses formal coursework, study abroad, language enrichment, and a global studies senior level capstone emphasizing research on issues and problems affecting the global community and having an impact at the state or local level. The program is flexible and allows students to focus on a wide range of topics, including: Global Business Initiatives and Impact; Languages; International Development in Agriculture; Economics of Global Trade and Policies; Global Health; Natural Resources; Global Environment and Climate Change; Global Political Systems; International Development organizations; Global Telecommunications; Geographic Information Systems, etc. The program aims at preparing the future workforce to work and live in an increasingly interdependent global society. The enhancement is not an independent major; instead, it is a complement to the formal academic major or field of study. Therefore, it is available to all students in all schools and departments. Students are expected to enroll in the program in the freshman or sophomore year.

Requirements:

- I. Global Core Courses: (6 credit hours), including GP 499
- II. Global Programs and departmental approved electives: (6 credit hours)
Includes approved study abroad, internationally-related internships or departmental electives.
- III. Foreign Language Requirement: (3 credit hours)
- IV. Cultural Studies (3 credit Hours)
- V. Co-Curricular Activities (Non-Credit) -- Check with Global Programs.

Study Abroad. Study abroad offers students exciting opportunities to live and learn in another country for at least one semester or summer term while earning academic credit towards a degree at Alcorn State University. Participants are required to be full-time students at the foreign University in programs administered by ASU exchanges or U.S. based and approved study abroad providers.

Students wishing to study abroad via direct enrollment or otherwise should follow the steps listed below:

1. Go to the website of the Office of Global Programs at <http://www.alcorn.edu/globalprograms>
2. Search ASU affiliated study abroad providers or universities for courses in your major (discipline).
3. Select study abroad courses based on requirements in your major.

4. Print course syllabi/descriptions, if available online.
5. Check the cost of the selected program and compare to your financial aid award.
6. Meet with study abroad advisor to fill out the required Title IV forms (bring unofficial transcripts and degree program sheet to the meeting).
7. Meet with academic advisor to discuss study abroad program and obtain signature approving study abroad courses.
8. Obtain all other required institutional signatures.
9. Apply (by deadline) for the Benjamin Gilman and other scholarships, if you are eligible.
10. Submit all applications (with the assistance of the study abroad advisor); apply for passport and visa, obtain necessary immunizations.
11. Participate in mandatory pre-departure orientation.
12. Upon return to ASU, participate in mandatory debriefing and program evaluation.

HONORS CURRICULUM PROGRAM

Sheren Sanders, Ph.D., Director

Honors Curriculum Program Bldg.

Telephone: (601) 877-6197

Fax: (601) 877-2969

HONORS CURRICULUM PROGRAM

The Honors Curriculum is an interdisciplinary academic program designed for undergraduate students with a demonstrated record of excellence. Honors students may choose three different program options: a general education core, an enhanced curriculum within academic departments, or a combination of both.

Students may enter into the Program as new freshmen with an ACT score of 24 or at the end of any semester with a grade point average of 3.0 or better.

The mission of the program is to offer academically motivated students a diverse interdisciplinary curriculum that has an intense focus on research, service, and experiential learning through a community of faculty, staff, and students at Alcorn State University and within the state, nation, and world. In the freshman year, students are grouped into special honors sections of general education courses. In the sophomore year, students enroll in a colloquium designed to encourage and develop lively communication growing out of enriched reading experiences. Sophomore students may also enroll in special honors sections of multi-section courses, which are offered in response to student interest and when departmental personnel resources permit.

At the upper level, there is an interdisciplinary honors seminar for juniors, which widens the student's outlook and at the same time provides an opportunity for research in a field of special interest. The senior honors student engages in a program of study related to a single major field that offers the possibility for: (a) guided research, (b) a seminar, (c) independent study or (d) a project.

Entering freshman participants for the Honors Program are selected on the basis of scores on admissions and placement examinations. Participants entering after the first semester of the freshman year are selected on the basis of cumulative average plus the recommendations of two faculty members. The required average for second semester freshmen, sophomores and juniors is 3.0 or better; seniors must have achieved an average of 3.25 or better.

A student who has completed a minimum of 24 hours of honors course work, and who has maintained a cumulative grade point average of at least 3.25 in honors and overall, may graduate with the designation of an Honors Scholar. In addition to the above requirements, the recipient of this distinction must be enrolled in a minimum of six hours of honors course work during at least three of the four undergraduate years.

Honors Program

Core (Freshmen and Sophomore Courses)		Hrs.
BI 191-192	Honors Biology	8
CH 191-192	Honors Chemistry	8
EN 191-192	Honors English	6
HI 191-192	Honors World Civilization I-II	6
MA 191-192	Honors Mathematics	8
PH 191-192	Honors General Psychology	6
HO 291-292	Sophomore Honors Colloquium	6
Core (Junior and Senior Courses)		
HO 391-392	Junior Honors Seminar	6

HO 491-492	Honors Independent Study	6
Other Honors Courses (Such as, but not limited to the following)		
EN 213	Studies in Literature	3
MA 225	Calculus	4
SA 223	Oral Communication	3

Students may also select other courses for Honors Enhancement. See the Director of Honors for additional information.

SCHOOLS OF INSTRUCTION





SCHOOL OF AGRICULTURE & APPLIED SCIENCES

• Advanced Technologies • Department of Agriculture • Human Sciences

SCHOOL OF AGRICULTURE AND APPLIED SCIENCES

Edmund R. Buckner, Ph.D.

Dean of Agriculture and Applied Sciences

Director of Land Grant Programs

Telephone: (601) 877-6137

Fax: (601) 877-6219

GENERAL INFORMATION

The mission of Alcorn State University School of Agriculture and Applied Sciences (AAS) is to provide enriching educational, research and outreach opportunities that empower its clientele to contribute to the overall improvement of their community, the state of Mississippi, the nation as a whole, and ultimately help improve social and economic conditions of people around the world.

The School of Agriculture and Applied Sciences at Alcorn State University fulfills its 1890 Land-Grant mission by preparing the next generation of leaders in the fields of agriculture, human sciences, biotechnology and advanced technologies. The school also strives to address the needs of underserved communities and agricultural and applied sciences sectors while facilitating centers of excellence which promote community development based on the accomplishments of its research and Extension endeavors.

The major objectives of the School are to: 1) implement functional teaching programs that prepare students for successful careers in Agriculture, Human Sciences, and Technology; 2) conduct research programs that will discover new knowledge and provide better utilization of existing knowledge for the improvement of the citizens in Mississippi, the region, and the nation; and, 3) serve rural and urban individuals and families in the areas of Agriculture, Human Sciences, Technology and other related areas through extension and outreach programs and activities.

The School consists of four academic departments: ***Agriculture, Human Sciences, Advanced Technologies, Bio-Technologies***. Through the academic departmental structure, undergraduate instructions leading to the Bachelor of Science degrees are offered in the following areas: (1) Agriculture: Agricultural Economics, Plant and Soil Science, Animal Science, Environmental Science, Agribusiness Management; (2) Human Sciences: Child Development, Nutrition and Dietetics); and (3) Advanced Technology: Robotics Automation, Computer Networking Information Technology, and Applied Science.

The school of Agriculture and Applied Sciences also offers instructions leading to the Master's Degree in Education with teaching endorsements in each of the departments. In Agriculture, the Master of Science degree is offered with majors in Agricultural Economics, Plant and Soil Science, and Animal Science. The Department of Bio-Technology offers a Master's of Science Degree in Bio-Technology. Advanced Technology offers the Master of Science in Applied Science. The Master of Science in Workforce Leadership Education is offered jointly with Mississippi State University. Additionally, students may enroll in Pre-Professional Programs in Forestry, Veterinary Medicine in the Department of Agriculture, and in Engineering in the Department of Advanced Technology. Throughout the year, each department conducts short courses, workshops, and conferences for various interest groups.

DEPARTMENT OF ADVANCED TECHNOLOGIES

Jermiah Billa, Ph.D., Chair

Advanced Technology Bldg., #102

Telephone: (601) 877-6484

Fax: (601) 877-3941

The Department of Advanced Technologies offers three Bachelor of Science degrees: Applied Science, Computer Networking and Information Technology, and Robotics and Automation. The unique nature of technology in permeating all disciplines permits hybrid customized curricula with multidisciplinary foci to address student needs and aspirations.

The department also offers a Master of Science degree in Workforce Education Leadership and a transfer program in Pre-Engineering. Students interested in working within the field of Advanced Technologies should consider the options available in the department.

Scholarships: The department has several scholarships and awards to support students. These include Diversity Scholarship from the Ayers Settlement, Entergy Scholarships, Department of Energy Scholarships, Dean's (School of Agriculture and Applied Sciences Scholarships). In addition, the department has significant amounts of grant funds from several federal agencies including the Department of Defense (DOD), United States Department of Agriculture (USDA), Department of Labor (DOL), National Nuclear Security Administration (NNSA), Nuclear Regulatory Commission (NRC) and the United States Air force dedicated to support students in the diverse areas. Students are exposed to pre-employment training in Engineering, Research, Computer Technology development and Advanced Technologies through the department's laboratories. Industrial Internships and Cooperative educational opportunities are available for students who meet the necessary departmental and industry partners' standards. Students may also benefit from internships and by working with research laboratories in the department and the Center for Information Technology Services (CITS).

Prospective students (freshmen and Transfers) are encouraged to contact the department for more information on opportunities. For more information on the department and the Systems Research Institute visit the department at www.adtech.alcorn.edu.

Online Courses Policy: Classes are taught to two primary audiences, on campus and off-campus students. Classes are taught in the traditional classroom setting and simultaneously made available live and/or recorded over the internet for students who cannot be in the traditional setting. Approval to enroll in online courses can be obtained from the department. All students are required to take and pass an exit exam in their areas of study before graduation. In some programs of study, industry certifications are also required.

Programs

Current Undergraduate Programs in the Department of Advanced Technologies include:

- Applied Science
- Computer Networking and Information Technology
- Robotics and Automation Technology
- Pre-Engineering

Current Concentrations in Applied Science include:

- Biomedical Engineering Technology
- Computer Engineering Technology
- Electro-Mechanical Engineering Technology
- Geospatial Engineering Technology
- Homeland Security

Nuclear Engineering Technology
Radiation Technology (Health Physics/ HP)
Medical Radiologic Science and Technology

Technology Management
Health Care Management and Administration
Industrial

Applied Science Description of Concentrations in Applied Science

1. Biomedical Engineering Technology

The Biomedical Engineering Technology track in Applied Science provides students with the skills of an engineering technologist while focusing specifically on biomedical equipment technology and management. In addition to courses in basic electronics, computer systems, industrial electronics, digital electronics, communications and control systems, the concentration includes courses in major areas of bio-medical engineering technology and management. Supplementary courses in anatomy and physiology complete the medical specialization. Optional field practice internship placements where interactions at hospitals in the region are integrated with a Senior Design project provide students with a practical foundation for employment in the field. Statistics made available by the US department of labor, www.bls.gov, indicate a yearly salary between \$33,030 and \$114,360. The usual starting salary is somewhere in the middle with the median annual salary for biomedical engineers being \$61,320.

2. Computer Engineering Technology

The objective of the Computer Engineering Technology track in the Applied Science is to prepare students for careers that require an extensive knowledge of both computer hardware and software. It integrates several fields of electrical engineering and computer science required to develop computer systems. Computer engineering technologists usually have training in electronics, software design, and hardware-software integration. Computer engineers are involved in many hardware and software aspects of computing including the design of microprocessors, personal computers and supercomputers circuit design. The program offers a reasonably equal balance of study and experience in the hardware and software area, enabling graduates to be well prepared for a career in programming, hardware design and testing, system administration, computer hardware and software evaluation, or other related areas. The Bureau of Labor Statistics (BLS) has the Average Starting Salary, 2007, as \$56,201 and the growth projection for 2006-2016, as 5%.

3. Electro-Mechanical Engineering Technology

Electromechanical engineering technology is designed to prepare students for combined knowledge of mechanical engineering technology with knowledge of electrical and electronic circuits to design, develop, test, and manufacture electronic and computer-controlled mechanical systems. The work of practitioners in the area often overlaps that of both electrical and electronics engineering technologists and mechanical engineering technologists. Students learn the theoretical concepts in the classroom and combine that with practical hands-on laboratories.

Using a mixture of actual components, systems and computer simulations, students become skilled in the practical application of industrial electronics, computers, hydraulics, programmable controllers, pneumatics, robotics and mechanical principles.

The projections point toward a huge demand of electro-mechanical engineers in the energy sector and green collar sector jobs including alternative energies as all the energy systems involve electro-mechanical operation. The BLS has the Average Starting Salary in 2007 as \$54,710 and growth Projection for 2006-2016, as 5%.

4. Geospatial Engineering Technology (GET)

The GET Program Description

The evolving economy, science and technology are dependent on geospatial engineering and utilities of data marketing. These include data collection and processing; hence the race for satellite engineering and technology. GET's visualization of geo-referenced data has made modern engineering an instant market of high demand-and-supply economic logistics built around different systems applications.

For example, The Department of the Interior, which was commissioned to oversee the nation's spatial data and underlying engineering, has placed a high priority on this technology. The President in his 2012 state of the union address referred to geospatial engineering as one of the next technological frontiers that will define the next world's superpowers in education, military, and economy. We are therefore, using our academic resources to train and position our students to embrace this evolution.

The main objective is to train students to acquire technological and scientific skills, through an academic system that allows scientific methods, technology presentations, and systems applications in understanding social and economic needs and their desired solutions. The undergraduate concentration provides students with different opportunities to acquire an interdisciplinary knowledge, through a curriculum that has broad definitions of transportation and environmental engineering. It also covers grounds for homeland security and natural resources management. This curriculum has electives in physical science, computer information science, and construction management, which provide hand-on and hand-held technologies to students. GET is information engineering (IE) that defines concurrent engineering on any system of management, such as Homeland Security and Natural Resource Management.

5. Nuclear Engineering Technology

Nuclear engineers research and develop the processes, instruments, and systems used to derive benefits from nuclear energy and radiation. They design, develop, monitor, and operate nuclear plants to generate power. They may work on the nuclear fuel cycle—the production, handling, and use of nuclear fuel and the safe disposal of waste produced by the generation of nuclear energy—or on the development of fusion energy. Some specialize in the development of nuclear power sources for naval vessels or spacecraft; others find industrial and medical uses for radioactive materials, as in equipment used to diagnose and treat medical problems. The BLS has the Average Starting Salary 2007 as \$56,587 and growth projections for 2006-2016 as 7%.

6. Radiation Technology/Health Physics (HP)

The Radiation Technology concentration prepares its graduates with credential to be employable as Health Physicists in nuclear power plants and other establishments that deal with ionizing radiations. Upon additional training, the graduates of this discipline are also employable as nuclear medicine technologists, diagnostic radiography technologist, radiation therapy technologist in oncology departments, and in the use of ultrasound machines for medical diagnostics in health and medical establishments. This is a multi-disciplinary program in the Department of Advanced Technologies that focuses on various areas such as physics, chemistry, biology, medicine, engineering and others. This may be used as a premed option only with advisement from the program leader.

7. Medical Radiologic Science and Technology

The Medical Radiologic Sciences and Technology concentration is designed as an online “2+2” program to offer graduates of community college radiologic sciences programs the ability to obtain a bachelor of applied science degree with education in specialty areas of medical imaging. The specialty areas currently being offered are Computed Tomography (CT), Magnetic Resonance Imaging (MRI) and mammography. The Radiologic Sciences and Technology curriculum consists of online learning coupled with clinical experience at a medical facility. Upon completion of the program, students receive the Bachelor of Applied Science degree and can apply for the advanced certification examinations in CT, MRI, or mammography offered by the American Registry of Radiologic Technologists (ARRT).

According to the U.S. Department of Labor, the job market is predicted to continue to grow as technology advances all modalities within radiologic sciences. Salary ranges for graduates vary. The advanced specialty registered radiologic technologist can expect to enter the job market at approximately \$50,000 annually, with increases based on geographical region and work shift. Typical employment locations include hospitals, physician offices and out-patient imaging centers.

8. Technology Management

- a) Medical (Health Care Management and Administration)
- b) Industrial

This area of study may be taken online. This concentration is a two-year capstone degree program for persons holding AA, AS, or AAS degrees from an accredited two year college, or equivalent. Medical options targets graduates from Allied Health areas. A professionally relevant curriculum has been designed to equip students with the skills needed to seek career advancement in administration. Students in the medical option are prepared for mid-level management positions in all types of healthcare organizations such as hospitals, outpatient care services, physician's offices, medical equipment firms, and state or government healthcare programs. Courses include operational management, finance, policy, and analysis.

Computer Networking and Information Technology (CNIT) Program

This program has many domains: information systems management, system building, analysis and design, computer aided systems engineering (CASE), database, telecommunication, systems networks, data communication, and society. The program prepares students for a lifelong career in computer information technology, which is a rapidly changing field that places graduates into employment positions as systems engineering technicians and applications development experts. Graduates are encouraged to consider graduate school as a career development path. The program objective includes training of students for the Information Technology (IT) workforce, preparation of students for entrepreneurship. The program focuses on current technologies and its future trends to keep abreast with the changing technological landscape in industries.

Students majoring in CNIT will be required to gain expertise in designing, implementing and maintaining local area networks, wide area networks, and wireless network systems, application development and web designing using .NET, and languages such as C#; databases; system administration in Windows, UNIX/Linux, and IBM environment. Certification with external bodies, such as Microsoft and Cisco, is required.

Certification: A Certification Exam is required prior to graduation. A minimum of 100 hours of internship is required for graduation. The department will assist students on identifying sites for internship. This may be done during the Fall, Spring, and Summer semesters for students to gain practical work experiences which are required in the industry.

DESCRIPTION OF ROBOTICS AND AUTOMATION PROGRAM (RAT)

This program is designed to place program graduates into positions as managers of technology in industry and government. The program prepares students to be technical managers able to move through a lifelong career prepared to change technical occupations if and when needed. Students attain the knowledge of modern computerized and automated systems used in modern industry, transport and government.

Theoretical classes are backed by state of the art laboratories in modern electronics, computers integrated systems and automation. Graduates from this program work as high level technical and hiring managers in well-known companies such as Boeing, AT&T, Nissan, Toyota, and others. This program is certified by The Association of Technology, Management, and Applied Engineering. (ATMAE).

DESCRIPTION OF PRE-ENGINEERING

The Pre-Engineering major is designed to prepare students for study in accredited engineering programs. This major allow students to transfer to an engineering degree granting institution and continue with their study in the use of computers, software, and general engineering technology in state-of-the-art labs. Students who choose not to transfer may continue their study and complete a Bachelor of Science degree in one of the following areas: Robotics and Automation Technology, Computer Networking & information Technology or Applied Science with a focus on Biomedical Engineering Technology, Electro-Mechanical Engineering Technology, Computer Engineering Technology, Nuclear Engineering Technology, or in Geographic Information Sciences and Technology.

Graduate Programs: A Master of Science degree in Applied Science with various concentrations and a master's degree in Workforce Education Leadership through a joint degree program with Alcorn State's land-grant partner, Mississippi State University. In addition, trade, industrial, and teachers may complete a course of study through distance learning leading to teacher certification.

B.S. Degree Program in Applied Science Concentrations

Biomedical Engineering Technology (120 Credit Hours)

The Biomedical Engineering Technology program of study at Department of Advanced Technologies provides students with the skills of an engineering technologist while focusing specifically on biomedical equipment technology and management. In addition to courses in basic electronics, computer systems, industrial electronics, digital electronics, communications and control systems, the program includes courses in concentration areas of biomedical engineering technology and management. Supplementary courses in anatomy and physiology complete the medical specialization. Optional field practice internship placements where interactions at hospitals in the region are integrated with a Senior Design project provide students with a practical foundation for employment in the field.

Freshman Year (36)							
First Semester	Class		Hrs.		Second Semester	Class	Hrs.
EN 111	Composition I		3		HI 111	World Civilization I	3
BI 111/ BI 113	Biology/Ecology		3		EN 112	Composition II	3
MA 121	College Algebra		3		MA 181	Calculus	4
CH 121	General Chemistry I		3		PH 132	General Psychology	3
CH 121L	General Chemistry I Lab		1		IT 101	IT Essentials	3
EG 103	General Engineering		3		ND 101	Nutrition and Dietetics	1
UL 101	University Life		1		PE 200 MS 102	Physical Education or Foundations of Leadership	1
PE 100 MS 101	Physical Education or Intro. to the Army		1				
	TOTAL		18			TOTAL	18
Sophomore Year (33)							
HU 201	Humanities		3		EN 213	Introduction to Literature	3
PY 217	General Physics (Calculus)		3		SA 223	Oral Communication	3
EC 201	Principles of Economics		3		TY174/EG107	Engineering and Tech Computation & Simulation/ Intro to Computing for Engineers	3

BI 335	Human Anatomy		3		BM 101	Introduction to Bio-Medical Engineering		3
BI 335L	Human Anatomy		1		BI 336	Human Physiology II		3
TY 232	Circuit Analysis I		3		BI 336L	Human Physiology Lab II		1
PY 251L	General Physics (Calculus) Lab		1					
	TOTAL		17			TOTAL		16
Junior Year (30)								
TY 331	Electronics I		3		BM 401	Bio-Med. Instrumentation Systems		3
CT 326	C++ Programming		3		BM 420	Telemed and Med Informatics		3
EG 303	Statics		3		EG 412	Telecommunications		3
EG 400	Digital Electronics		3		TY 450	Industrial Fluid Power		3
IT 375	Database Management Systems		3		RT 211	Phys. & Medical Imaging		3
	TOTAL		15			TOTAL		15
Senior Year (21)								
BM 410	Bio-Medical Eng. Tech. Internship		3		RT 421	Health Care Management		3
RT 343	Health Care Marketing		3		TY 438	Industrial Project Management		3
EG 490	Senior Design Project I		3		CT 320	Microprocessor I		3
					EG 495	Senior Design Project II		3
	TOTAL		9			TOTAL		12

Electives

EG 418 Electric Power Systems

EG 401 Elec. Drives & Machines

BM 299 Ethics in HealthCare

BM 401 Biomedical Engineering Technology Internship

BM 499 Seminar in Bio-Medical Engineering Technologies

BM 410 Bio-Medical Instrumentation Systems

BM 420 Telemed and Med Informatics

IT 333 Mobile Applications I

IT 350 Communications Systems

IT 361 Introduction to Data Communications

IT 363 LAN and Enterprise Networks

IT 395 Cyber Security

IT 397 Design of Experiment

IT 433 Mobile Applications II

IT 461 Virtualizations Technologies

RT 331 Statistics Health Sciences

TY 373 Enterprise Systems & Networks I

Or any other approved departmental elective.

Programing Electives

TY 272 Java, CT 326 C++, or course with approval of AT department head.

Students may obtain permission of the chair of the department to substitute required departmental course(s) with other approved course(s) with justification signed by the area advisor.

Computer Engineering Technology (120 Credit Hours)

The Computer Engineering Technology concentration provides the students with the fundamental knowledge in computer software and hardware required in developing the knowledge and skills necessary for the design and implementation of computers and computer systems, the integration of computers into larger systems, and the application of digital solutions to a broad range of engineering problems. The concentration provides the student with well-rounded education encompassing the theory and practice of computer software, hardware, and electronics, to enable the student to pursue careers in computer engineering related industries such as, process control, automotive, cell phone, and other embedded systems applications. The student may also choose to continue his/her education in a wide range of computer-related engineering fields.

The concentration seeks to emphasize hands-on experience, problem solving, and the creative process that prepares the student to work in the dynamic and rapidly expanding field of digital technology.

Freshman Year (33)							
First Semester	Class		Hrs.		Second Semester	Class	Hrs.
HI 111	World Civilization		3		TY174/EG107	Engineering and Tech Computation & Simulation/ Intro to Computing for Engineers	3
MA 121	College Algebra		3		CH 121	Chemistry I	3
EN 111	Composition I		3		CH 121L	Chemistry Lab I	1
EC 201	Economics		3		EN 112	Composition II	3
CT 127 IT 101	Introduction to Computer Engineering Technology or IT Essentials		3		MA 132	Trigonometry	3
UL 101	University Life		1		PH 132	General Psychology	3
ND 101	Nutrition and Dietetics		1				
	TOTAL		17			TOTAL	16
Sophomore Year (36)							
EN 213	Studies in Literature		3		PY 218	General Physics II	3
PY 217	General Physics I		3		PY 218L	General Physics Lab II	1
PY217L	General Physics Lab I		1		MA 182	Calculus II	4
MA 181	Calculus I		4		EG 212	Circuit Analysis II	3
TY 201	Problems in Engineering		3		AR 214	Art Appreciation	3
PE 100 MS 101	Physical Education or Intro. to the Army		1		CS 251	Object Oriented Design & Prog.	3
TY232	Circuit Analysis I		3		PE 200 MS 102	Physical Education or Foundations of Leadership	1
	TOTAL		18			TOTAL	18
Junior Year (27)							
CT 362	Computer Programming / w C++		3		CS 321 CT 300	Data Structures or Data Strs & Anal of Alg.	3
EG 404	Elect Net (Sign. & Sys)		3		_____	Free Junior Elective	3

EG 377	Engineering Statistics	3		CT 320	Microprocessors I	3
TY 331	Electronics I	3		CT 328/CS 350	Operating Systems/ Oper Sys I	<u>3</u>
IT 375	Database Management Systems	<u>3</u>				
	TOTAL	15			TOTAL	12
Senior Year (24)						
EG 400	Digital Electronics I	3		CS 401/CT 424/TY 490	PC Architecture/Intro to Comp Archit./ Computer Architecture	3
CT 421	Microprocessor II	3		EG 412	Elect. Communc.	3
EG 490	Senior Design Project I	3		_____	Technical Elective	3
_____	Restricted Technical Elective	<u>3</u>		EG 495	Senior Design Project II	<u>3</u>
	TOTAL	12			TOTAL	12

Technical Electives

CT 328 Operating Systems I
 CT 309 Electronics II
 CT 311 Digital Electronics II
 CT 421 Microprocessor II
 CT 422 Advanced Microprocessors
 CT 429 Operating Systems II
 TY 456 Machine Control Systems
 TY 461 PLCs
 IT 478 C# Network Programming
 IT 333 Mobile Applications
 IT 350 Communications Systems
 IT 361 Introduction to Data Communications
 IT 363 LAN and Enterprise Networks
 IT 366 Enterprise Systems and Networking II
 IT 395 Cyber Security
 IT 397 Design of Experiment
 IT 433 Mobile Applications II
 IT 461 Virtualizations Technologies
 IT 468 Network Security II
 TY 373 Enterprise Systems & Networks I
 TY 373 Enterprise Networking I
 Or any other approved departmental elective.

Programing Electives

TY 272 Java, CT 326 C++, or programing course outside the department with approval of AT department head.

* Students may obtain permission of the chair of the department to substitute required departmental course(s) with other approved course(s) with justification signed by the area advisor.

Electro-Mechanical Engineering Technology (120 Credit Hours)

Electro-Mechanical Engineering Technology provides students with the necessary electrical and mechanical background to enable them to tackle and solve practical electro-mechanical and related problems in various types of industrial settings. Several commercial, industrial, and military equipment consist of electrical and mechanical components that work together to realize the equipment's functionality. It is, therefore, necessary to educate students into the workforce with the proper understanding of the interaction between electrical and mechanical systems. Electro-Mechanical Engineering Technology is, designed to provide students who desire to enter the industrial world as electrical and mechanical engineers/scientists/specialists with the skills and academic foundations that will enable them to find employment and career opportunities in this ever growing sector of engineering. Graduates will be prepared to pursue graduate school in several technical and management disciplines. Nationwide, there are currently few graduates with an electro-mechanical background. Thus, graduates will have excellent job prospects. Graduates with knowledge and understanding of both electrical and mechanical systems can be employed in almost all industrial, commercial, and military equipment manufacturers such as the automotive industry.

Freshman Year (32)							
First Semester	Class	Hrs.		Second Semester	Class		Hrs.
EN 111	Composition I	3		EN 112	Composition II		3
EC 201	Economics	3		CH 121	Chemistry I		3
HI 111	World Civilization	3		CH 121L	Chemistry Lab I		1
MA 121	College Algebra	3		SS 111	Social Institutions		3
PE 100 or MS 101	Physical Education I or Intro. to the Army	1		EG 107/TY174	Engineering and Tech Computation & Simulation/ Intro to Computing for Engineers		3
EG 103	General Engineering	3		ND 101	Nutrition and Dietetics		1
UL 101	University Life	1		PE 200 or MS 102	Physical Education II or Foundations of Leadership		1
	TOTAL	17			TOTAL		15

(Students who are not prepared to begin College Algebra and Calculus I must take the necessary Pre-requisite courses in Mathematics in addition to those prescribed in the curriculum.)

Sophomore Year (34)							
First Semester	Class	Hrs.		Second Semester	Class		Hrs.
MA 181	Calculus I	4		HU 201	Humanities		3
PY 217	General Physics I (Calculus)	3		EG 212	Circuit Analysis II		3
SA 223	Oral Communication	3		PY 218	General Physics II (Calculus)		3
EN 213	Studies in Literature	3		TY 201	Prob. in Engineering		3
TY 232	Circuit Analysis I	3		MA 182	Calculus II		4
PY 217L	General Physics I (Calculus) Lab	1		PY 218L	General Physics II (Calculus) Lab		1
	TOTAL	17			TOTAL		17

Junior Year (30)							
TY 331	Electronics I		3		EG 313	Thermodynamics	3
EG 377	Eng. Statistics		3		EG 314	Mechanics of Materials	3
EG 303	Statics		3		EG 302	Dynamics	3
TY 301	Tech & Engin. Analy		3		EG 305	Mechanics of Machines	3
CT 320	Microprocessor I		3		CT 326	Computer Programming w/C++	3
	TOTAL		15		TOTAL		15
Senior Year (24)							
EG 404	Electrical Networks		3		TY 450	Industrial Fluid Power	3
EG 400	Digital Electronics		3		EG 418	Electric Power Systems	3
EG 401	Elec. Drives & Machines		3		EG 412	Electronic Comm.	3
EG 490	Senior Design Project I		3		EG 495	Senior Design Project II	3
	TOTAL		12		TOTAL		12

Electives

The course sequence in unmanned electro-mechanical systems is available to prepare students for jobs in defense industries for application of unmanned systems in search and rescue, border security, and maritime and port security.

EG 299 – Introduction to Unmanned Systems

EG 399 – Unmanned Aerial Vehicles

EG 493 – Unmanned Water Vehicles

IT 333 Mobile Applications

IT 350 Communications Systems

IT 361 Introduction to Data Communications

IT 366 Enterprise Systems and Networking II

IT 433 Mobile Applications II

IT 461 Virtualizations Technologies

TY 373 Enterprise Systems & Networks I

Or any other approved departmental elective.

* Students may obtain permission of the chair of the department to substitute required departmental course(s) with other approved course(s) with justification signed by the area advisor.

GEOSPATIAL ENGINEERING TECHNOLOGY (GET)

Our GET curriculum for Homeland Security and Natural Resource Management is designed to reflect the fields of study listing by the Survey of Earned Doctorates (SED), conducted by NORC, for the National Science Foundation (NSF), National Institute of Health, Department of Education, and National Endowment for the Humanities, USDA, and NASA. Geospatial Engineering Technology and Homeland Security are relatively new fields of study and this curriculum extends its requirements over the following fields of study: Computer and Information Sciences, Engineering, Life Sciences, Physical Sciences, and Social Sciences. These five fields of study are designed to at least emphasize *the sciences, engineering and technology*. And with no limitations, the curriculum requires the undergraduate student to apply their concentrations to STEM educational system. This system will give the undergraduate student broad skill, knowledge, and understanding of their academic career. On the other hand, it will allow the graduate students to develop professional STEM techniques in applied research. The SRI is a support utility for undergraduate and graduate student development through STEM education.

Geospatial Engineering Technology: Homeland Security Management (120 Credit Hours)

Freshman Year (34)							
First Semester	Class		Hrs.		Second Semester	Class	Hrs.
HI 111	World Civilization		3		EN 112	Composition II	3
EN 111	Composition I		3		PH 132	General Psychology	3
MA 121	College Algebra		3		IT 181	Computer Cartography	3
CH 121	Chemistry I		3		EG 107/TY 174	Engineering and Tech Computation & Simulation/ Intro to Computing for Engineers	3
CH 121L	Chemistry Lab I		1		ND 101	Nutrition and Dietetics	1
IT 101	IT Essentials		3		IT 115	Intro. to GIS Applications	3
UL 101	University Life		<u>1</u>		PE 100 or MS 101	Physical Education I or Foundations of Leadership	<u>1</u>
	TOTAL		17		TOTAL		17
Sophomore Year (32)							
MA 181	Calculus I		4		SA 223	Oral Communication	3
IT 119	Intro. to Remote Sensing Process		1		HU 201	Humanities	3
_____	Free Elective		3		AR 214	Art Appreciation	3
EN 213	Studies in Literature		3		IT 291	Case Studies in Homeland Security	3
IT 137L	Computer Applications Database		1		PE 200 or MS 201	Physical Education II or Foundations of Leadership	1
PY 215	General Phy. (Non-Cal) I		3		TY 207	CAD/CAM	<u>3</u>
PY 215L	General Phy. (Non-Cal) I Lab		<u>1</u>				
	TOTAL		16		TOTAL		16

Note: The department recommends that courses be taken in the order they appear in the tables, but if circumstances do not support this appearance, it is the responsibility of the student to obtain permission from the department chair or program leader to get approval to take courses out of sequence.

Junior Year (30)							
_____	Restrictive Technical Elective		3		IT 407	Remote Sens. at Microwaves	3
IT 375	DB Management System		3		IT 333	Mobile GIS App. (Programming)	3
IT 381	Geo. Inform. Syst. (GIS)		3		_____	Restrictive Technical Elective	3
IT 384	Advanced GIS (Spa. Analy)		3		IT 386	Intro. to Remote Sensing	3
CT 326	Programming w/C++		<u>3</u>		_____	Restricted Elective	<u>3</u>
	TOTAL		15		TOTAL		15
Senior Year (24)							
IT 485	Spatial Statistics		3		IT 486	Infrastructure Risk Analysis	3
IT 480	Adv. Remote Sensing		3		IT 385	Energy Transportation Network	3

IT 492	Foundations of U.S. Force Planning		3		IT 382/IT 477/IT 488	Image Interpretation/ Remote sensing Envir./ Explosives Detection		3
EG 490	Senior Project Design I		<u>3</u>		EG 495	Senior Project Design II		<u>3</u>
	TOTAL		12			TOTAL		12

Note: The department recommends that courses be taken in the order they appear in the tables, but if circumstances do not support this appearance, it is the responsibility of the student to clear with the department chair or program leader to clip credits earned or get approval to take courses out of sequence.

ELECTIVES: Choose any three Elective

- | | |
|---|---|
| CS454 Web Applications | IT 390 Emergency Prep. Mgt. and Res. |
| TY 445 Total Quality Management | IT 481 Transportation Planning |
| TY 322 Occupational Safety Management | IT 363 Transportation Logistics (Traffic) |
| IT 532 Spatial Data Structures & Algorithms | IT377 Mobile Computing |
| IT 389 Aerial Photo Interpretation | IT 420 Spatial Epidemiology |
| IT 391 Applied Statistics/Data Analytics | |
| IT 399 Transportation & Econ. Logistics | |
- Or any other approved departmental elective with permission.

Restricted Electives

IT 372 Technology in Natural Disaster Planning and Emergency Management

- IT 385 Energy and Trns Net.
 - IT 486 Infrastructure Risk Analysis
 - IT 477 Remote Sensing of the Environment
 - IT 393 GIS-Crie & Social Analysis
 - IT 394 GIS-Feasibility Studies
 - IT 488 Explosive Detection
 - IT 492 Foundations of U.S. Force Planning
 - IT 490 ESRI & Digital Government (Job Seminar)
- Or any other approved departmental elective with permission.

Programing Electives

TY 272 Java, CT 326 C++, or course with approval of AT department head.

*Students may obtain permission of the chair of the department to substitute required departmental course(s) with other approved course(s) with justification signed by the area advisor.

Electives

- Choose any three elective (*recommended)
- | | |
|---|---|
| CS 454 Web Applications | IT 390 Emergency Prep. Mgt. and Res. |
| TY 445 Total Quality Management | IT 481 Transportation Planning |
| TY 322 *Occupational Safety Management | IT 363 Transportation Logistics (Traffic) |
| IT 532 Spatial Data Structures & Algorithms. | IT 389 Aerial Photo Interpretation |
| IT 377 *Mobile GIS Applications (Programming) | IT 399 Transportation & Econ. Logistics |
| IT 486 Infrastructure Risk Analysis | |

Restricted Electives

- IT 391 Forest Survey & Health Restoration
- IT GIS Crime & Social
- IT424 Geospatial Threats to Agricultural & Human
- IT 487 Environ. Impact Studies
- IT 501 Land Use Planning and Environmental Justice

Nuclear Engineering Technology (120 Credit Hours)

The nuclear engineering technology focus is designed to prepare applicants for various activities in nuclear industry. Alcorn State University is perhaps the only university that is located within twelve miles of a major nuclear power station, and hosts one of the early warning safety stations on its campus. Nuclear engineering professionals traditionally are among the top university students and receive one of the highest salaries in engineering. Nuclear power generation, that is currently contributing 20% of the national electrical power, is an inevitable mixture for power generation for foreseeable future. Nuclear power is a prime candidate to provide fuel as society moves from gas-based economy to hydrogen-based economy and as such a graduate of this field is assured one of the highest salaries awarded in the technical field.

Freshman Year (31)							
First Semester	Class	Hrs.		Second Semester	Class		Hrs.
EN 111	Composition I	3		EN 112	Composition II		3
CH 121	Chemistry I	3		SS 111	Social Institutions		3
CH 121L	Chemistry Lab I	1		EG 107	Comp Appl. for Eng		3
EG 103	General Engineering	3		EG 104	Engineering Comp Lab		3
MA 121	College Algebra	3		ND 101	Nutrition and Dietetics		1
UL 101	University Life	<u>1</u>		HI 111	World Civilization		<u>3</u>
PE 100 or MS 101	Physical Education I or Intro. to the Army	<u>1</u>					
	TOTAL	15			TOTAL		16
Sophomore Year (35)							
MA 181	Calculus I	4		HU 201	Humanities		3
PY 217	General Physics I	3		NE 205	Nuclear Reactor Systems		3
EC 201	Principles of Economics	3		PY 218	General Physics II		3
EN 213	Studies in Literature	3		SA 223	Oral Communication		3
NE 200	Intro. to Nuclear Eng.	<u>3</u>		MA 182	Calculus II		4
				MA 384	Differential Equations		<u>3</u>
	TOTAL	16			TOTAL		19
Junior Year (27)							
NE 301	Reactor Theory I	3		EG 313	Thermodynamics		3
EG 377	Eng. Statistics	3		NE 304	Nuclear Materials		3
EG 303	Statics	3		NE 302	Reactor Theory II		3
MA 346	Linear Algebra	<u>3</u>		NE 305	Intro. to Health Physics		3
				NE 300	Radiation Instrumentation		<u>3</u>
	TOTAL	12			TOTAL		15

Senior Year (27)							
NE 401	Reactor Safety		3		NE 403	Nuclear Steam Cycle	3
NE 402	Nuclear Heat Transfer		3		NE 406	Nuclear Wastes Management	3
NE 404	Nuclear Fuel Cycle		3		NE 408	Nuclear Env. Issues	3
EG 340	Engineering Economics		3		NE 410	Nuclear Computation	3
NE 400	Nuclear Design		3				
	TOTAL		15		TOTAL		12

Radiation Technology: Health Physics (120 Credit Hours)

A Baccalaureate of Science (B.S.) degree in Applied Science at Alcorn State University (ASU), with specialization in Health Physics (HP), requires about 120 credit hours as are tabulated below. This curriculum is compatible with a regular college course load. It can be completed in three or four years by a college-bound traditional student in health physics. This curriculum satisfies all the requirements for ABET accreditation for the B.S. degree in the applied science program.

Freshman Year (36)							
First Semester	Class		Hrs.		Second Semester	Class	Hrs.
EN 111	Composition I		3		EN 112	Composition II	3
MA 121	College Algebra		3		MA 181	Calculus I	4
BI 111/ BI 113	Biology/Ecology		3		CH 122	General Chemistry II	3
CH 121	General Chemistry I		3		HP 121	Computation in HP I	3
HP 111	Intro. to Health Physics		3		HI 111	World Civilization	3
UL 101	University Life		1		ND 101	Nutrition and Dietetics	1
CH 121L	General Chemistry I Lab		1		CH 122L	General Chemistry II Lab	1
PE 100 MS 101	Physical Education I or Intro. to the Army		1				
	TOTAL		18		TOTAL		18
Sophomore Year (36)							
MA 182	Calculus II		4		BI 336	Hum. Ant. & Phy. II	3
PY 217	General Physics I		3		HU 201	Humanities	3
PY 217L	General Physics I Lab		1		PY 218	General Physics II	3
EC 201	Principles of Economics		3		SA 223	Oral Communication	3
EN 213	Studies in Literature		3		EG 107/ TY 174	Comp.Appl. for Engineers/ Engineer & Tech. Computation & Simulation	3
PE 200 MS 201	Physical Education II or Intro. to the Army I		1		HP 211	Computation in HP II	2
BI 335	Human Ant. & Phy. I		3		PY 218L	General Physics II Lab	1
	TOTAL		18		TOTAL		18
Junior Year (30)							
TY 232	Circuit Analysis I		3		HP 325	Radiobiology	3
EG 377	Eng. Statistics		3		HP 311	Radiation Physics II	3

HP 301	Radiation Physics I		3		HP 321	Nuclear Instrumentation		3
HP 312	External Dosimetry		3		HP 362	Internal Dosimetry		3
IT 375 TY 493	Database Management Systems or Independent Study in Tech.		3		HP 213	HP Regulations		3
	TOTAL		15		TOTAL			15
Senior Year (18)								
HP 412	Topics in Health Physics I		3		HP 429	Contemporary Issues in HP		3
HP 495	Technical Elective in HP II		3		HP 324	Radiation Measurement		3
CT 320	Microprocessor I		3		HP 496	Senior Project/Thesis		3
	TOTAL		9		TOTAL			9

The technical electives can be in health physics, nuclear science and engineering, chemistry, physics, biology, zoology, mathematics, environmental science, computer science, or any similar topics. This curriculum is for a traditional student entering the university from high school. For transfer and non-traditional students who wish to graduate from Alcorn State University, the residency requirement is at least thirty credit hours. Therefore, the university allows students to transfer all except thirty credit hours from a SACS accredited institution or its equivalent if they are comparable to the ABET requirements in the course description categories. This area of study can be finished in three years or less if one includes summer sessions or the transfer credit hours.

In the case of transfer students and/or life learning situations, every case is evaluated individually and the proper credit can be awarded according to university admission and graduation requirements. This curriculum is designed to satisfy the requirement set by ABET for a B.S. degree in Applied Science which is also acceptable by ABHP (the American Board of Health Physics). A student who has completed the above curriculum is qualified to start at a nuclear power plant at the level of Radiation Protection Specialist and soon be eligible for HP certification.

The courses will be offered according to the previously agreed *document summarized in a rubric titled, “Strategic Vision for a2+2+2+2 Competency-Based Workforce Development & Health Physics Initiative”. Students intending to pursue medicine after the bachelors may with advisement from program leader make the substitutions to facilitate the taking the MCAT. A hand out guide is available on request.

*Agreement between ASU and GGNP.

Programing Electives

TY 272 Java, CT 326 C++, or course with approval of AT department head.

*Students may obtain permission of the chair of the department to substitute required departmental course(s) with other approved course(s) with justification signed by the area advisor.

Radiologic Science and Technology (60 Credits)

The Medical Radiologic Sciences and Technology track of the Applied Science program is designed as an online “2+2” program to offer graduates of community college radiologic sciences programs the ability to obtain a bachelor of applied science degree with education in specialty areas of medical imaging. The specialty areas currently being offered are Computed Tomography (CT), Magnetic Resonance Imaging (MRI) and mammography.

The Radiologic Sciences and Technology curriculum consists of online learning coupled with clinical experience at a medical facility. Upon completion of the program, students receive the Bachelor of Applied Science degree and can apply for the advanced certification examinations in either CT, MRI, or mammography offered by the American Registry 8888 of Radiologic Technologists (ARRT).

Junior Year (24)							
First Semester	Class	Hrs.		Second Semester	Class	Hrs.	
RT 320	Pathophysiology	3		RT 325	Research Methods	3	
RT 321	Adv. Clinical Practice	3		RT 331	Statistics for the Health Sciences	3	
_____	Restricted Technical Elective	3		_____	Restricted Technical Elective	3	
_____	Restricted Technical Elective	<u>3</u>		_____	Restricted Technical Elective	<u>3</u>	
	TOTAL	12			TOTAL	12	
Summer (12)							
Summer Session I				Summer Session II			
RT 335	Information and Image Processing	3		RT 351	Health Law	3	
RT 340	Operations Management & Qualitative Methods for Healthcare	<u>3</u>		RT 426	Sectional Anatomy	<u>3</u>	
	TOTAL	6			TOTAL	6	
Senior Year (24)							
RT 4XX	Principles of Selected Specialty (see below)	3		RT 4XX	Applications II of Selected Specialty (see below) (if mammography specialty is chosen RT 475 is taken here)	3	
RT 4XX	Applications I of Selected Specialty (see below)	3		RT 485	Concept Integration and Review	3	
_____	Restricted Technical Elective	3		_____	Restricted Technical Elective	3	
_____	Restricted Technical Elective	<u>3</u>		_____	Restricted Technical Elective	<u>3</u>	
	TOTAL	12			TOTAL	12	

This curriculum is for a student entering from a community college radiologic science program under the 2+2 articulation agreement. For transfer and non-traditional students who wish to graduate from Alcorn State University, the residency requirement is at least thirty credit hours. Students transferring from community colleges and missing any mandatory general college courses, students are required to fulfil those requirements along with the departmental courses.

The community college student is allowed to transfer 60 hours and the remaining 60 hours must be completed at Alcorn State University. Twenty-eight (28) hours of the sixty (60) transferred hours is granted for the ARRT certification in radiography.

A student who has completed the above curriculum is qualified to take ARRTT (American Registry of Radiologic Technologists) Certification examination in their area of specialty.

Specialty Courses (RT 4XX)

RT 435. Principles of Computed Tomography

RT 440. Computed Tomography Applications I

RT 445. Computed Tomography Applications II

- RT 450. Principles of Magnetic Resonance Imaging
- RT 455. Magnetic Resonance Imaging Applications I
- RT 460. Magnetic Resonance Imaging Applications II
- RT 465. Principles of Mammography
- RT 470. Mammography Applications
- RT 475. Mammographic Quality Assurance

Professional Course of Study is Lockstep

Upon the successful completion of RT 485, students will be awarded an additional 28 semester hours of transfer elective credit based on required coursework completed in the previous program that enables them to sit for and earn their professional credential. Counting the professional courses including the capstone course, Advanced Standing students will be awarded 64 semester credit hours at Alcorn State University.

Technology Management: Healthcare Management and Administration (60 Credits)

The Department of Advanced Technologies offers a Bachelor of Applied Science degree with an online Health Care Management and Administration Track. This career-oriented program is a two-year capstone degree program for persons holding AA, AS, or AAS degrees from an accredited two-year college, or equivalent. A professionally relevant curriculum has been designed to equip students with the skills needed to seek career advancement in medical administration. Students are prepared for mid-level management positions in all types of healthcare organizations such as hospitals, outpatient care services, physician's offices, medical equipment firms, and state or government healthcare programs.

In addition to meeting the general education core requirements, students seeking the Bachelor of Applied Sciences – Technology Management degree must meet the requirements listed below. Students should consult an academic advisor for courses which may satisfy general education core requirements. Also, some courses listed in the curriculum may require prerequisites.

The program of study is available online to meet the needs of a targeted audience of two year degree graduates currently in the workplace seeking to enhance their management skills and acquire a bachelor’s degree in the process. However, some in-person sessions may be required. Examinations are done in person and students in the program must make arrangement to have a proctored exam in a place and setting approved by the department.

Junior Year (30)							
First Semester	Class	Hrs.		Second Semester	Class	Hrs.	
TY 323	Principles of Technical Management	3		RT 340	Operations Management. and Qualitative Methods	3	
AC 212	Accounting Survey	3		TY 322	Occupational Safety Management	3	
RT 343	Healthcare Marketing	3		MG 301	Principles of Management	3	
TY 215	Industrial Research Methods	3		CT 326	Programming w/C++	3	
EG 377	Engineering Statistics	3		_____	Guided Elective	3	
	TOTAL	15			TOTAL	15	
Senior Year (30)							
RT 421	Healthcare Management	3		TY 438	Project Management	3	
_____	Guided Elective	3		BA 239	Business Ethics	3	

TY 445	Total Quality Management		3		TY 498 CE XXX	Industrial Internship or Cooperative Education		3
IT 375	Database Management System		3		_____	Guided Elective		3
_____	Guided Elective		<u>3</u>		_____	Guided Elective		<u>3</u>
	TOTAL		15			TOTAL		15

Programing Electives

TY 272 Java, CT 326 C++, or course with approval of AT department head.

*Students may obtain permission of the chair of the department to substitute required departmental course(s) with other approved course(s) with justification signed by the area advisor.

Technology Management: Industrial (60 Credits)

The Department of Advanced Technologies offers a Bachelor of Applied Science degree with a Technology Management track online. This career-oriented program is a two-year capstone degree program for persons holding AA, AS, or AAS degrees from an accredited two-year college in a technical/occupational field. Students are prepared for mid-level management positions in all types of technology driven organizations. In addition to meeting University and General College requirements, students seeking the Bachelor of Applied Sciences – Technology Management degree must meet the requirements listed below.

Students should consult an academic advisor for courses which may satisfy General College program requirements. Also, some courses listed in the curriculum may require prerequisites. The program is available online to meet the needs of a targeted audience of two-year degree graduates currently in the workplace seeking to enhance their management skills and acquire a bachelor's degree in the process. However, some in-person sessions may be required. Examinations are done in person and students in the program must make arrangement to have a proctored exam in a place and setting approved by the department.

Junior Year (33)								
First Semester	Class		Hrs.		Second Semester	Class		Hrs.
TY 323	Principles of Technical Management		3		RT 340	Operations Management and Qualitative Methods		3
TY 319	Manufacturing Processes		3		MG 301	Principles of Management		3
AC 212	Accounting Survey		3		IT 375	Database Management		3
TY 215	Industrial Research Methods		3		TY 322	Occupational Safety Mgt.		3
CT 326	Programming w/C++		3		TY 394	Lean Manufacturing		<u>3</u>
EG 377	Engineering Statistics		<u>3</u>					
	TOTAL		18			TOTAL		15
Senior Year (30)								
TY 308	Prod. Planning & Control		3		TY 339	Plant Layout & Material Handling		3
EG 490 TY 498	Senior Project Design I or Industrial Internship		3		TY 438	Industrial Project Management		3
TY 445	Total Quality Management		3		TY 446 / EG 495	Senior Capstone/ Senior Project Design II		3

EG 377	Engineering Statistics		3	_____	Guided Elective		3
_____	Guided Elective		<u>3</u>	_____	Guided Elective		<u>3</u>
					ATMAE CERTIFICATION EXAM		
	TOTAL		15		TOTAL		15

Programing Electives

TY 272 Java, CT 326 C++, or course with approval of AT department head.

*Students may obtain permission of the chair of the department to substitute required departmental course(s) with other approved course(s) with justification signed by the area advisor.

B.S. Degree Program in Computer Networking and Information Technology (120 Credit Hours)

Freshman Year (34)							
First Semester	Class		Hrs.		Second Semester	Class	Hrs.
HI 111	World Civilization		3		CH 121	General Chemistry I	3
EC 201	Economics		3		CH 121L	General Chemistry Lab I	1
MA 121	College Algebra		3		EN 112	Composition II	3
EN 111	Composition I		3		PH 1-32	General Psychology	3
UL 101	University Life		1		IT 162	Computer Network Fundamental	3
IT 101	IT Essentials		<u>3</u>		ND 101	Nutrition and Dietetics	1
PE 100 MS 101	Physical Education I or Intro. to the Army		<u>1</u>		EG 107/ TY174	Engineering and Tech Computation & Simulation/ Intro to Computing for Engineers	<u>3</u>
	TOTAL		17		TOTAL		17
Sophomore Year (32)							
IT 137L	Computer App Lab - Database		1		AR 214	Art Appreciation	3
PE 200 MS 201	Physical Education II or Leadership and Decision Making		1		IT 262	Introduction to WAN	3
IT 261	Routing & Switch. Basics		3		MA 181	Calculus I	4
BI 111	General Biology I		3		EN 213	Studies in Literature	3
PY 215	General Physics I (Non-Cal)		3		SA 223	Oral Communication	<u>3</u>
PY 215L	General Physics Lab I (Non-Cal)		1				
TY-279	Web Design & Programming		3				
_____	Restricted Elective		<u>1</u>				
	TOTAL		16		TOTAL		16
Junior Year (30)							
TY 374	Network Devices & Software		3		IT362/IT395	Advanced Routing/Cyber Security	3
IT 373	Web Design		3		IT 364	Introduction to Unix	3
IT 375	Database Management Systems		3		CT 326/ IT 374	Computer Programming w/C++/ Internet Programming	3
EG 377	Engineering Statistics		3		IT 365/ IT 376	Server Conf. & Admin/ Database Server Admin	3

IT 466	Network Security		<u>3</u>		IT 378/ TY 373	Application Development/ Enterprise Net.		<u>3</u>
	TOTAL		15			TOTAL		15
Senior Year (24)								
IT 471	System Analysis Design		3		EG 495	Senior Project II		3
EG 490	Senior Project Design		3		IT 461	Virtualization Technologies		3
IT 468	Network Security II		3		TY 438	Industrial Project Management		3
TY 445	Total Quality Management		<u>3</u>		IT 473	Wireless Technologies		<u>3</u>
	TOTAL		12			TOTAL		12

All students completing degree programs in the department are expected to pursue graduate studies in a cognate area. Some will enter graduate school immediately; others will work full-time while pursuing graduate studies part-time. A listing of specific courses designed to assist students for key graduate programs is below.

Computer Networking and Information Technology majors will work in diverse industrial and governmental environments which will require critical knowledge, skills, and abilities. The Information Technology faculty and its advisory council encourage computer networks, information systems, integrated manufacturing, GIS & remote sensing, energy and power systems, and computer science as priority areas. Modern industrial production operations will require networking professionals to run the array of information technologies which are the key infrastructure supporting their commerce. If additional diversification of a student's program of study is needed, an advisor will recommend a course from the list of technology course descriptions in the Description of Courses section of this catalog.

All students completing degree programs in the department are expected to pursue graduate studies in a cognate area a listing of specific courses designed to assist students for key graduate programs is below. Computer Networking and Information Technology majors will work in diverse industrial and governmental environments which will require critical knowledge, skills, and abilities.

The Information Technology faculty and its advisory council encourage computer networks, information systems, integrated manufacturing, GIS & remote sensing, energy and power systems, and computer science as priority areas. Modern industrial production operations will require networking professionals to run the array of information technologies which are the key infrastructure supporting their commerce. If additional diversification of a student's program of study is needed, an advisor will recommend a course from the list of technology course descriptions in the description of Courses section of this catalog.

NOTE: Industry certification and a minimum of 100 hours of an approved internship are required for graduation. The department will assist students on identifying sites for internship. This may be done during the Fall, Spring, and Summer semesters for students to gain practical work experiences which are required in the industry. The internship may be completed any time after the sophomore year.

Recommended electives pool for Computer Networking Majors:

- IT 333 Mobile Applications
- IT 350 Communications Systems
- IT 361 Introduction to Data Communications
- IT 363 LAN and Enterprise Networks
- IT 366 Enterprise Systems and Networking II
- IT 391 Applied Statistics I /Data Analytics

IT 392 Applied Statistics II /Data Analytics
 IT 395 Cyber Security
 IT 397 Design of Experiment
 IT 410 Backup Recovery Systems Architecture
 IT 412 Cloud Infrastructure and Services
 IT 414 Distributed Systems & Cloud Computing
 IT 433 Mobile Applications II
 IT 461 Virtualizations Technologies
 IT 462 CCNA Review
 IT 468 Network Security II
 IT 472 Fiber Optics
 IT 477 Networking in UNIX
 TY 373 Enterprise Systems & Networks I
 Or any other approved departmental elective with permission.

Programing Electives

TY 272 Java, CT 326 Programming w/C++, or course with approval of AT department head.

*Students may obtain permission of the chair of the department to substitute required departmental course(s) with other approved course(s) with justification signed by the area advisor.

B.S. Degree Program in Robotics and Automation Technology (120 Credit Hours)

In the Robotics and Automation Technology program, students learn to use computer systems to program robots, manage automated systems, run databases in inventory, payroll, project planning and scheduling, and purchasing. The program is designed to place graduates into positions as managers of automation technology in industry and government. This program prepares students to be technical generalists so they can move through a lifelong career prepared to change technical occupations if and when needed. After finishing the program, the student will be able to design and manage facilities with modern, intelligent, control, computerized, and robotics systems.

The Robotics and Automation Technology program is certified by **The Association of Technology, Management, and Applied Engineering**. (ATMAE). Also, a national board certification examination is administered to complete graduation requirements: **The Association of Technology, Management, and Applied Engineering’s** (ATMAE) Certified Technology Manager (CTM) examination.

Freshman Year (30)							
First Semester	Class		Hrs.		Second Semester	Class	Hrs.
TY 101	Problems in Technology		3		EN 112	Composition II	3
EN 111	Composition		3		MA 121	College Algebra	3
HI 111	World Civilization		3		SS 111	Social Institution	3
TY 107L	Computer Applications Lab - Word		1		ND 101	Nutrition and Dietetics	1
TY 117L TY 127L	Computer Applications Lab - Spreadsheets or Computer Applications Lab - Presentations		1		EG107/TY174	Engineering and Tech Computation & Simulation/ Intro to Computing for Engineers	3

CH 121	Chemistry I		3		UL 101	University Life		1
CH 121L	Chemistry Lab I		<u>1</u>		PE 100 MS 101	Physical Education I or Intro. to the Army		<u>1</u>
	TOTAL		15			TOTAL		15
Sophomore Year (30)								
TY 209	Robotics Applications		3		SA 223	Oral Communication		3
EC 201	Principle of Economics		3		MA 181	Calculus I		4
PY 215	General Physics I (Non-Calculus)		3		EN 213	Studies in Literature		3
PY 215L	General Physics Lab I (Non-Calculus)		1		TY 207	CAD/CAM		3
TY 232	Circuit Analysis I		3		TY 201	Prob. in Engineering		<u>3</u>
PE 200 MS 102	Physical Education II or Leadership and Decision Making		<u>1</u>					
	TOTAL		14			TOTAL		16
Junior Year (30)								
TY 301	Techn. and Engin. Analy.		3		TY 322	Occupational Safety Mgt.		3
TY 308	Production, Planning & Control		3		TY 320	Comput. Intg. Manufacturing		3
TY 319	Manufacturing Processes		3		TY 339	Plant Layout & Materials Handling		3
CT 326	Computer Programming w/C++		3		TY 394	Lean Manufacturing		3
TY 331	Electronics		<u>3</u>		TY 323	Principles of Technical Mgt.		<u>3</u>
	TOTAL		15			TOTAL		15
Senior Year (30)								
TY 450	Industrial Fluid Power Systems		3		TY 438	Project Management		3
TY 461	PLCs		3		TY 446 / EG 495	Advanced CIM/ Senior Design Project II		3
EG 490	Senior Project Design I		3		TY 487	Robotics Programming		3
_____	Technical Elective		3		TY 456	Machine Control Systems		3
TY 445	Total Quality Management		<u>3</u>		CT 320	Microprocessor I		<u>3</u>
						ATMAE CERTIFICATION EXAM		
	TOTAL		15			TOTAL		15

Acceptable Electives for Robotics and Automation Technology

The Advanced Technologies faculty and its advisory council require students majoring in Robotics and Automation Technology to select electives in computer networking, management, GIS/remote sensing, computer science, and energy and power systems. Consider, after consulting your industrial technology advisor, selecting at least 3 semester hours of elective courses from the list as follows:

- Any Computer Networking (CN) or Computer Science class (CS) above the sophomore level is acceptable.
- Engineering and Electro-Mechanical Technology classes are acceptable upon consultation and permission from an assigned student advisor.
- GIS&T classes are acceptable upon consultation and permission from an assigned student advisor.

Other acceptable Electives

MA 336 Mathematical Modeling
MA 346 Linear Algebra
TY 338 Digital Electronics and Micro-processors
TY 361 Feedback Control
TY 405 Industrial Quality Control
TY 467 Electrical Power Distribution Systems
TY 490 Engineering Statistics and Random Signals
TY 499 Environmental Hazards Management
Or any other approved departmental elective with permission.

Programing Electives

TY 272 Java, CT 326 Programming w/C++, IT 478 C# Programming or programing with approval of AT department head.

*Students may obtain permission of the chair of the department to substitute required departmental course(s) with other approved course(s) with justification signed by the area advisor.

Pre-Engineering (98 Credit Hours)

The Pre-Engineering program is designed as a cooperative undertaking between Alcorn State University and other universities having fully accredited engineering programs. This major requires students to earn approved credit hours at Alcorn and acquire the additional required courses by transferring to a cooperating institution. Students who choose not to transfer may continue their studies and complete a Bachelor of Science degree in one of the following programs/majors: Robotics & Automation Technology, Computer Networking & Information Technology, or Applied Sciences (i.e. Electro-Mechanical Engineering Technology, Geographic Information Sciences and Technology (GIS&T), or Computer Engineering Technology).

Designed for students who did not complete engineering prep courses in high school, this major leads to a Bachelor of Science degree in Engineering at cooperating institutions. It will also prepare students to enter their junior year at institutions that offer a Bachelor of Science degree in the following majors:

Aerospace Engineering	Electrical Engineering
Agricultural Engineering	Engineering Technology
Chemical Engineering	General Engineering
Civil Engineering	Industrial Engineering
Civil Engineering Technology	Materials Engineering
Computer Engineering	Mechanical Engineering
Computer Engineering Technology	Textile Engineering

Freshman Year (35)							
First Semester	Class	Hrs.		Second Semester	Class		Hrs.
EN 111	Composition I	3		EN 112	Composition II		3
CH 121	Chemistry	3		SS 111	Social Institutions		3
CH 121L	Chemistry Lab	1		EG 107/TY174	Engineering and Tech Computation & Simulation/ Intro to Computing for Engineers		3
HI 111	World Civilization	3		_____	Technical Elective		3
MA 121	College Algebra	3		ND 101	Nutrition and Dietetics		1
EG 103	General Engineering	3		MA 181	Calculus		4
PE 100	Physical Education I or			PE 200	Physical Education II or		
MS 101	Intro. to the Army	<u>1</u>		MS 201	Leadership and Decision Making		<u>1</u>
	TOTAL	17			TOTAL		18
Sophomore Year (35)							
EC 201	Economics	3		HU 201	Humanities		3
PY 217	General Physics I	3		EG 212	Circuit Analysis II		3
PY 217L	General Physics Lab I	1		PY 218	General Physics II		3
SA 223	Oral Communication	3		TY 201	Prob. in Engineering		3
EN 213	Studies in Literature	3		MA 182	Calculus II		4
TY 232	Circuit Analysis I	<u>3</u>		_____	Technical Elective		<u>3</u>
	TOTAL	16			TOTAL		19
Junior Year (30)							
TY 331	Electronics I	3		EG 313	Thermodynamics		3
EG 377	Engineering Statistics	3		EG 314	Mechanics of Materials		3
EG 303	Statics	3		EG 302	Dynamics		3
_____	Technical Elective	3		EG 305	Mechanics of Machines		3
TY 301	Tech and Egin Analysis	<u>3</u>		EG 320	Fluid Mechanics		<u>3</u>
	TOTAL	15			TOTAL		15

(Students who are not prepared to begin College Algebra and Calculus I must take the necessary Pre-requisite courses in Mathematics in addition to those prescribed in the curriculum.)

Upon completion of the coursework listed, students will transfer to an engineering degree granting institution and choose an engineering discipline as a major. The engineering program at Alcorn State University prepares students to enroll in majors listed above and closely related disciplines. Students should expect to complete their degrees in five academic years. Students who do not transfer should select a major in applied sciences.

TRADES AND INDUSTRIAL EDUCATION

In addition to the several degree granting programs, the department also provides professional courses in trades and industrial education to aid teachers of trade subjects in meeting state certification requirements. In order for the prospective trade and industrial teachers to begin working toward meeting the minimum requirements for certification, the following courses are offered;

	Class	Hrs.
TI 489/589	Philosophy & Principles of Vocational Education	3
TI 452/552	Instructional Planning in Industrial & Vocational Programs	3
TI 451/518	Development of Use of Instructional Materials in Industrial & Vocational Programs	3
TI 450/550	Delivering Instruction in Industrial & Vocational Programs	3
IE 326/526	Principles, Objectives & Evaluation of Industrial & Vocational Programs	3
IE 316/516	Organizing & Managing the Learning Environment in Industrial & Vocational Programs	3

DEPARTMENT OF AGRICULTURE

Victor Njiti, Chair

Morris-Boykin Agricultural Science Bldg.

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The Department of Agriculture at Alcorn State University is dedicated to training students for successful careers in the Agriculture Sciences. The disciplines offered prepare students for a private sector career and/or graduate/professional school. The total aim is to equip the student with practical knowledge and skills based on theoretical and proven techniques. The broad span of the Agriculture Sciences is dynamic; therefore, it is imperative that students be involved in every aspect of their educational endeavor. The faculty members are highly trained and academically aggressive. Degrees are conferred after successful completion of courses in the following areas: agricultural economics, agricultural education, general agriculture, animal science, environmental science, forestry, plant and soil science, biotechnology, international option in agricultural economics and agribusiness management.

The programs are designed with student input whereby course offerings greatly impact the student's level of success. Employment opportunities are vast. Great strides are taken to ensure that the programs offered are future oriented, yet applicable to the present agricultural industry keeping the avenues of graduate and professional school as priorities.

The Department of Agriculture is also concerned with conducting research and service activities that are in keeping with the functions of land-grant colleges.

Program Goals

1. To effectively prepare students for careers in agriculture, advanced education, and lifelong learning.
2. To provide opportunities for students to connect with the agricultural community through interaction with private industries, government agencies, and other industry professionals.
3. To prepare students for graduate and professional schools.
4. To provide and support quality faculty and staff with appropriate expertise.

Bachelor of Science in Agricultural Economics (120 Credit Hours)

Freshman Year (32)							
First Semester	Class		Hrs.		Second Semester	Class	Hrs.
EN 111	Composition I		3		EN 112	Composition II	3
BI 111	Introduction to Biology I		3		BI 124	General Botany	3
HI 111	World Civilization I		3		BI 124L	General Botany Lab	1
MA 121	College Algebra		3		MA 132	Trigonometry	3
AE 111	Fund. & Concepts in Ag.		3		ND 101	Health and Wellness	1
UL 101	University Life		1		CS 100	Intro. to Computers	1
					PS 122	Crop Production	4
					PS 122L	Crop Production Lab	0
	TOTAL		16		TOTAL		16
Sophomore Year (31)							
EN 213	Studies in Literature		3				
BI 121 CH 121	General Zoology or General Chemistry I		3		EC 202	Prin of Economics II	3

BI 121L CH 121L	General Zoology I Lab or Gen Chemistry I Lab		1		BA 233	Business Comp. App. I		3
AE 213	Principles of Ag. Econ		3		PH 132	General Psychology		3
SS 111	Social Institutions		3		AR 214 MU 213	Art Appreciation or Music Appreciation		<u>3</u>
AS 213	Animal Production		<u>3</u>					
	TOTAL		16			TOTAL		12
Junior Year (31)								
AC 213	Financial Accounting		3		AE 478	Farm Organization & Management		4
AE 325	Farm Rec and Acct		3		AE 346	Agricultural Prices		3
MA 377	Statistics I		3		MA 223 AB	Intro. to Math Analysis w/App. or Elem. of Quant. Analysis in Agribusiness		3
AE 214	Agricultural Finance		3		AB 392 AE 356	Agribusiness Marketing or Marketing of Ag Prod & Coop in Ag		<u>3</u>
SA 223	Oral Communication		<u>3</u>					
	TOTAL		15			TOTAL		13
Senior Year (27)								
AG 315	Farm Mechanics		3		AE 438	Research in Ag Econ.		3
AE 463	Agri. Statistics		3		PS 490	Research Methods		3
AG 486	Agriculture Seminar		1		AG 458	Special Problems		1
PS 315	Soils		3		AN 320 AG 439	Leadership or Internship		3
PS 315L	Soils Lab		1		AE 467 IA 302	Land Economics or International Ag Dev and Trade		<u>3</u>
AB 491	Agribusiness Management		3					
AE 365 AE 475	Micro-econ Theory or Production Economics		<u>3</u>					
	TOTAL		17			TOTAL		13

Bachelor of Science in Agricultural Economics: International Agriculture Emphasis (120 Credit Hours)

Freshman Year (32)								
First Semester	Class		Hrs.		Second Semester	Class		Hrs.
EN 111	Composition I		3		EN 112	Composition II		3
BI 111	Introduction to Biology I		3		BI 124	General Botany		3
HI 111	World Civilization I		3		BI 124L	General Botany Lab		1
MA 121	College Algebra		3		PS 122	Crop Production		4
AE111	Fund. & Concepts in Ag.		3		PS 122L	Crop Production Lab		0
UL 101	University Life		<u>1</u>		ND 101	Health and Wellness		1

				CS 100	Intro. to Computers		1
				SP111	Spanish 1		<u>3</u>
	TOTAL		16		TOTAL		16

Sophomore Year (34)

SS 111	Social Institutions		3				
BI 121 CH 121	General Zoology I or General Chemistry I		3	EC 202	Principles of Economics II		3
BI 121L CH 121L	General Zoology I Lab or Gen Chemistry I Lab		1	AR 214 MU 213	Art Appreciation or Music Appreciation		3
AE 213	Principles of Ag. Econ		3	PH 132	General Psychology		3
AS 213	Animal Production		3	EN 213	Introduction to Literature		3
SA 223	Oral Communication		<u>3</u>	MA 223	Intro. to Math Analysis		<u>3</u>
	TOTAL		16		TOTAL		15

Junior Year (28)

AC 213	Financial Accounting		3				
AE 325	Farm Rec and Acct		3	AE 346	Agricultural Price Analysis		3
AE 365 AE 475	Microeconomics in Ag. or Production Economics		3	BA 226	Intro. to Small Bus. Develop.		3
MA 377	Statistics I		3	AB 392 AE 356	Agribusiness Marketing or Mkt. of Ag. Prod		3
AE 215	Agricultural Finance		<u>3</u>	AE 467 IA 302	Land Economics or International Ag Dev. & Trade		<u>3</u>
	TOTAL		15		TOTAL		12

Senior Year (29)

AG 439	Internship		3	AE 478	Farm Org. Management		4
AG 486	Agriculture Seminar		1	PS 490	Research Methods		3
BA 403	International Business		3	AE 438	Research in Ag Econ.		3
PS 315	Soils		3	AG 458	Special Problems in Ag		3
AE 463	Agriculture Statistics		<u>3</u>	IA 482 IA 510	World Food Prod & Distribution or Resource Development		<u>3</u>
	TOTAL		13		TOTAL		16

Bachelor of Science in Agribusiness Management (120 Credit Hours)

Freshman Year (31)

First Semester	Class		Hrs.	Second Semester	Class		Hrs.
EN 111	Composition I		3	EN 112	Composition II		3
BI 111	Introduction to Biology I		3	BA 133	Intro. to Bus. Comp. App.		3
HI 111	World Civilization I		3	PH 132	General Psychology		3
MA 121	College Algebra		3	ND 101	Health and Wellness		1
AE 111	Fund. & Concepts in Ag.		3	CS 100	Intro. to Computers		1
UL 101	University Life		<u>1</u>	PS 122	Crop Production		4
				PS 122L	Crop Production Lab		<u>0</u>
	TOTAL		16		TOTAL		15

Sophomore Year (31)							
EN 213	Studies in Literature		3		SA 223	Oral Communication	3
CH 121	General Chemistry I		3		EC 202	Principles of Economics II	3
AE 213	Principles of Ag. Econ		3		AR 214 MU 213	Art Appreciation or Music Appreciation	3
AS 213	Animal Production		3		AC 214	Managerial Accounting	3
CH 121L	General Chemistry I Lab		1		AN 320	Leadership	3
AC 213	Financial Accounting		3				
	TOTAL		16			TOTAL	15
Junior Year (30)							
					AB 392 AE 356	Ag Bus. Marketing or Mkt. Ag. Prod. Coop	3
MA 377	Statistics I		3		AE 346	Agricultural Price Analysis	3
PS 315	Soils		3		AE 365 EC 420	Microeconomics Ag. or Managerial Economics	3
AE 215	Agricultural Finance		3		AB 366	Elem Meth of Quan. Analysis in AgBus	3
AE 325	Farm Rec. and Accts.		3		MG 301	Principles of Management	3
ZZ 307	Free Elective		3				
	TOTAL		15			TOTAL	15
Senior Year (28)							
AB 491	Agribusiness Management		3		AE 478	Farm Org. Management	4
AB 493	Farm & Ranch Appraisal		3		MG 320	Organizational Behavior or Ag. Elective	3
AE 463	Agricultural Statistics		3		AE 438 AG 439	Res. Ag. Economics or Internship	3
AE 467	Land Economics		3		PS 497	Agricultural & Environ Law	3
PS 437	Soil Conservation and Land Use or		3				
PS 459	Soil Fertility						
	TOTAL		15			TOTAL	13

Bachelor of Science in Agricultural Sciences: Plant and Soil Science Emphasis (120 Credit Hours)

Freshman Year (33)							
First Semester	Class		Hrs.		Second Semester	Class	Hrs.
BI 111	Introduction to Biology I		3		EN 112	Composition II	3
EN 111	Composition I		3		CH 122	General Chemistry II	3
CH 121	General Chemistry		3		CH 122L	General Chemistry II Lab	1
CH 121L	General Chemistry Lab		1		PS 122	Crop Production	4
HI 111	World Civilization I		3		PH 132	General Psychology	3
AE 111	Fund. & Concepts in Ag.		3		ND 101	Health and Wellness	1
UL 101	University Life		1		CS 100	Intro. to Computers	1
	TOTAL		17			TOTAL	16
Sophomore Year (29)							
EN 213	Studies in Literature		3		PS 220	Prin. Cell & Tissue Culture	3
CH 221	Organic Chemistry I		3		SA 223	Oral Communication	3

CH 221L	Organic Chemistry I Lab		1		CH 222	Organic Chemistry II		3
AE 205	Principles of Genetics		3		CH 222L	Organic Chemistry II Lab		1
MA 121	College Algebra		3		AR 214 MU 213	Art Appreciation or Music Appreciation		3
PS 205	Principles of Genetics		3		PS 221	Prin. Cell & Tissue Culture		1
					PS 305	Plant Dev. & Physiology		3
	TOTAL		16			TOTAL		17

Junior Year (27)

PS 439	Soil Microbiology		3		PS 320	Biomass and Bioenergy		3
PS 315	Soils		3		PS 446	Soil Morph & Classification		3
PS 315L	Soils Lab		1		PS 448	Soil Management		3
PS 482	Weed Control		3		PS 401	Small Fruit Prod		3
PS 345	Landscape Gardening		3					
PS 346	General Entomology							
PS 346L	General Entomology Lab		1					
	TOTAL		14			TOTAL		12

Senior Year (31)

AE 463	Agri Statistics		3		PS 482	Weed Control		3
AG 439	Internship		3		PS 449	Vegetable Production		3
PS 459	Soil Fertility		3		PS 475	Plant Breeding		3
PS 437	Soil Cons. Land Use		3		PS 490	Research Methods		3
PS 441	Gen Plant Pathology		3					
AG 486	Agriculture Seminar		1					
	TOTAL		16			TOTAL		12

Bachelor of Science in Agricultural Sciences: Forestry Emphasis (120 Credit Hours)

This is a cooperative program with Mississippi State University. Students who do not transfer to Mississippi State's B.S. Degree in Forestry program may continue their studies at Alcorn State University and complete a B.S. Degree in Plant and Soil Science, majoring in Forestry.

Freshman Year (33)

First Semester	Class		Hrs.		Second Semester	Class		Hrs.
EN 111	Composition I		3		EN 112	Composition II		3
BI 111	Introduction to Biology I		3		BI 124	General Botany		3
CH 121	General Chemistry		3		BI 124L	General Botany Lab		1
CH 121L	General Chemistry Lab		1		CH 122	General Chemistry II		3
PE 101 MS 101	Physical Education I or Intro. to the Army		1		CH 122L	General Chemistry II Lab		1
AE 111	Fund. & Concepts in Ag.		3		PE 201 MS 201	Physical Education or Leadership and Decision Making		1
UL 101	University Life		1		MA 121	College Algebra		3
BI 111L	Intro to Biology Lab		1		HU 201	Humanities		3
	TOTAL		16			TOTAL		18

Sophomore Year (30)

EN 213	Studies in Literature		3		AR 214	Art Appreciation		3
SA 223	Oral Communication		3		CS 201	Basic Programming		3

SS 111	Social Institutions		3		PS 257	Wood Science Tech		3
AE 213	Prin. of Agricultural Econ		3		HI 111	World Civilization I		3
PS 242	Wood Products		3		PS 220	Prin. Cell Tissue Culture		3
					PS 221	Prin. Cell Tissue		1
	TOTAL		15			TOTAL		16
Junior Year (28)								
PS 351	Forestry		3					
PS 315	Soils		3		PS 346	Gen. Entomology		3
CH 315	Survey of Organic Chemistry		3		PS 350	Forestry Taxonomy		3
PS 354	Forest Pathology		3		PS 350L	Forestry Taxonomy Lab		1
CH 315L	Survey of Org. Chemistry Lab		1		PS 346 PS 358	General Entomology or Pest Management		3
PS 315L	Soils Lab		1		PS 320	Biomass & Bioenergy		3
	TOTAL		14			TOTAL		13
Senior Year (29)								
PS 421	Wood Chemistry		3		PS 457	Forest Management		3
AG 439	Internship		3		PS 497	Ag. Environment		3
AE 463	Ag. Statistics		3		PS 495	Exp. Design		3
AG 486	Agriculture Seminar		1		PS 475	Plant Breeding		3
PS 467	Forestry Soil		3		AN 493	Agricultural Problems		1
PS 495	Experimental Design		3					
	TOTAL		16			TOTAL		13

Bachelor of Science in Agricultural Sciences: Animal Science Emphasis (120 Credit Hours)

Freshman Year (28)								
First Semester	Class		Hrs.		Second Semester	Class		Hrs.
EN 111	Composition I		3		EN 112	Composition II		3
BI 125	General Biology I		3		BI 126	General Biology II		3
BI 125L	General Biology I Lab		1		BI 126L	General Biology II Lab		1
HI 111	World Civilization I		3		CH 122	General Chemistry		3
AE 111	Fund. & Concepts in Ag.		3		ND 101	Health and Wellness		1
UL 101	University Life		1		MA 121	College Algebra		3
CH 121	General Chemistry		3		CH 122L	General Chemistry Lab		1
CH 121L	General Chemistry Lab		1					
	TOTAL		18			TOTAL		15
Sophomore Year (32)								
EN 213	Studies in Literature		3		SA 223	Oral Communication		3
SS 111	Social Institutions		3		MU 213 AR 214	Music Appreciation or Art Appreciation		3
CH 221	Organic Chemistry		3		HU 201	Humanities		3
AS 213	Animal Production		3		CH 222	Organic Chemistry		3
AS 213L	Animal Production Lab		0		CH 222L	Organic Chemistry Lab		1

CS 201	Basic Programming	3				
CH 221L	Organic Chemistry Lab	<u>1</u>				
	TOTAL	16			TOTAL	13
Junior Year (31)						
BI 325	General Microbiology	3		AS 343	Physio. & Anat of Farm Animals	3
BI 325L	General Microbiology Lab	1		AS 323	Livestock Dis. Sanitation	3
AS 336	Parasitology of Farm Animals	3		AS 363	Animal Management	3
CH 331	Biochemistry	3		AS 343L	Physio & Anat of Farm Animals Lab	1
AE 213	Princ. of Ag. Econ	3		AS 483	Feeds & Feeding	<u>3</u>
CH 331L	Biochemistry Lab	<u>1</u>				
	TOTAL	14			TOTAL	13
Senior Year (30)						
AE 463	Agri. Statistics	3		AG 439	Internship	3
AG 486	Agriculture Seminar	1		AS 413	Animal Nutrition	3
AS 485	Physiology of Reproduction	3		AS 487	Livestock Breeding	3
BI 445	Genetics	3		PS 447	Forage Crops	3
BI 445L	Genetics Lab	1		PS 490	Research Methods	3
AS 333 AS 463	Poultry Production or Hatchery Management	3		AS 487L	Livestock Breeding Lab	<u>1</u>
AS 485L	Physiology of Reproduction Lab	<u>1</u>				
	TOTAL	15			TOTAL	16

***A grade of C or higher is required to graduate. Two of AS 111, 216, and 363 electives are mandatory.**

Bachelor of Science in Agricultural Sciences: Poultry Science Emphasis (Credit Hours)

Freshman Year (28)						
First Semester	Class	Hrs.		Second Semester	Class	Hrs.
EN 111	Composition I	3		EN 112	Composition II	3
BI 125	General Biology I	3		AS 111	Poultry Production	3
HI 111	World Civilization I	3		UL 101	University Life	1
AE 111	Fund. & Concepts in Ag.	3		CH 122	General Chemistry	3
CH 121	General Chemistry	3		MA 121	College Algebra	3
CH 121L	General Chemistry Lab	<u>1</u>		CH 122L	General Chemistry Lab	<u>1</u>
	TOTAL	16			TOTAL	14
Sophomore Year (32)						
SP 111	Spanish I	3		SA 223	Oral Communication	3
AS 213	Animal Production	3		AG 439	Internship	3
AE 213	Principles of Ag Economics	3		AS 323	Livestock Dis. & Sanit. I	3
AS 233	Meat & Meat Products	3		EN 213	Introduction to Literature	3
ZZ 204	Free Elective	3		ZZ 314	Free Elective	<u>3</u>
AR 214 MU 213	Art Appreciation or Music Appreciation	<u>3</u>				
	TOTAL	18			TOTAL	15

Junior Year (31)							
BI 325	General Microbiology		3		AE 463	Agri Statistics	3
BI 325L	Gen Microbiology Lab		1		AS 323	Livestock Dis. Sanitation	3
AS 333	Poultry Management		3		BI 445	Genetics	3
AS 343	Physio & Anat of Farm Animals		3		BI 445L	Genetics Lab	1
SS 307	Statistical Methods		3		SY 408	The Family	3
					ZZ 315	Free Elective	3
	TOTAL		14		TOTAL		16
Senior Year (30)							
xMSU-PO-4313	Commercial Layers		3		xMSU-PO-3363	Poultry processing Intern	3
xMSU-PO-4334	Broiler Production		4		xMSU-PO-4033	Avian Disease	3
xMSU-PO-4413	Nutrition		3		xMSU-PO-4324	Avian Reproduction	4
xMSU-PO-4514	Processing		4		xMSU-PO-4423	Feed Manufacture	3
BI 445L	Genetics Lab		1		xMSU-PO-4844	Avian Anatomy and Processing	4
	TOTAL		15		TOTAL		17

*A grade of C or higher is required to graduate. Two of AS 111, 216, and 363 electives are mandatory.

Bachelor of Science in Agricultural Sciences: General Agriculture Emphasis (120 Credit Hours)

Freshman Year (34)							
First Semester	Class		Hrs.		Second Semester	Class	Hrs.
AE 111	Fund. & Concepts of Ag		3		BI 111	Intro. to Biology I	3
EN 111	Composition I		3		BI 111L	Intro. To Biology I Lab	1
HI 111	World Civilization I		3		CH 122	General Chemistry	3
MA 121	College Algebra		3		CH 122L	General Chemistry Lab	1
CH 121	General Chemistry		3		EN 112	Composition II	3
CH 121L	General Chemistry Lab		1		MS 112 PE 201	Military Science or Physical Education Activity	1
UL 101	University Life		1		ND 101	Health and Wellness	1
MS 111 PE 101	Military Science or Physical Education Activity		1		ED 200	Social Studies/Multicultural	3
	TOTAL		18		TOTAL		16
Sophomore Year (32)							
AE 213	Prin. of Ag. Economics		3		AR 214 MU 213	Art Appreciation or Music Appreciation	3
AS 213	Animal Production		3		BA 233	Bus. Comp. Applications	3
BI 121	General Zoology 1		3		PS 122	Crop Production	4
EN 213	Studies in Literature		3		PS 122L	Crop Production Lab	0
SA 223	Oral Communication		3		PH 132	General Psychology	3
PS 205	Principles of Genetics		3		AS 103L	Poultry Production Lab	0
	TOTAL		18		TOTAL		13
Junior Year (29)							
PS 439	Soil Microbiology		3		AG 315	Farm Mechanics	3
AE 325	Farm Rec and Acct		3		AN 318	Career Education	3
BI 325	General Microbiology		3		AN 320	Leadership	3

BI 325L	General Microbiology Lab		1		AS 233	Meat & Meat Products		3
PS 326	General Horticulture		4					
	TOTAL		14			TOTAL		12
Senior Year (26)								
AG 439	Internship		3		PS 449	Vegetable Production		3
AG 486	Agriculture Seminar		1		AE 478	Fm Org. & Management		4
AN 480	Problems & Trends in Ag. Ed.		3		PS 497	Ag. & Environ Law		3
PS 437	Soil Conservation & Land Use		3			Unrestricted Elective		
PS 441	General Plant Pathology		3		PS 475	Plant Breeding		3
ZZ 405	Free Elective							
	TOTAL		16			TOTAL		13

Bachelor of Science in Agricultural Sciences: Veterinary Science Emphasis (120 Credit Hours)

Freshman Year (35)								
First Semester	Class		Hrs.		Second Semester	Class		Hrs.
EN 111	Composition I		3		EN 112	Composition II		3
CH 121	General Chemistry		3		BI 126	General Biology II		3
CH 121L	General Chemistry Lab		1		BI 126L	General Biology II Lab		1
HI 111	World Civilization I		3		CH 122	General Chemistry		3
BI 125	General Biology I		3		ND 101	Health and Wellness		1
AE 111	Fund. & Concepts of Ag		3		MA 121	College Algebra		3
UL 101	University Life		1		CH 122L	General Chemistry Lab		1
BI 125L	General Biology Lab		1					
	TOTAL		18			TOTAL		15
Sophomore Year (32)								
EN 213	Studies in Literature		3		CH 222	Organic Chemistry II		3
CH 221	Organic Chemistry I		3		HU 201	Humanities		3
PY 215	General Physics (Non-Calculus)		3		PH 132	General Psychology		3
AS 213	Animal Production		3		MA 135	Precalculus		4
CH 221L	Organic Chemistry I Lab		1		CH 222L	Organic Chemistry II		1
PY 215L	General Physics Lab (Non-Calculus)		1					
AS 213L	Animal Production Lab		0					
	TOTAL		14			TOTAL		14
Junior Year (27)								
SA 223	Oral Communication		3		CS 201	Basic Programming		3
AS 323	Livestock Dis. Sanitation		3		AS 336	Parasitology of Farm Animals		3
CH 331	Biochemistry		3		AS 326	Therapeutic Agents		3
CH 331L	Biochemistry Lab		1					
BI 420	Medical Microbiology		3		PY 216	General Physics non-calculus		3

BI 420L	Medical Microbiology Lab		1		PY 216L	General Physics non-calculus Lab		1
AS 343	Physio & Anatomy of Farm Animals		3					
	TOTAL		17			TOTAL		13
Senior Year (27)								
BI 446	Histology		3		AG 458	Special Problems		1
AE 463	Agri. Statistics		3		AS 439	Agriculture Internship I		3
BI 445	Genetics		3		AS 440	Agriculture Internship II		3
BI 445L	Genetics Lab		1		AG 486	Agriculture Seminar		1
AG 486	Agriculture Seminar		1		PS 490	Research Methods		3
AS 413	Animal Nutrition		3		AS 433 BI 355	Physiology of Reprod. or General Parasitology		3
	TOTAL		14			TOTAL		14

**A grade of C or higher is required to graduate. Two of AS 111, 216, and 363 electives are mandatory
Electives courses: AS 111, 216, 363, 303, 433, and BI 355**

Bachelor of Science in Agricultural Sciences: Environmental Science Emphasis (120 Credit Hours)

Freshman Year (34)								
First Semester	Class		Hrs.		Second Semester	Class		Hrs.
EN 111	Composition I		3		EN 112	Composition II		3
BI 111	Intro. to Biology I		3		PS 122	Crop Production		4
AE 111	Fund. & Concepts of Ag		3		PS 122L	Crop Production Lab		0
PE 101 MS 111	Physical Education or Military Science		1		PE 201 MS 102	Physical Education or Military Science		1
MA 121	College Algebra		3		CH 122	General Chemistry II		3
CH 121	General Chemistry I		3		ND 101	Health and Wellness		1
CH 121L	General Chemistry I Lab		1		HI 111	World Civilization I		3
UL 101	University Life		1					
	TOTAL		18			TOTAL		15
Sophomore Year (31)								
EN 213	Studies in Literature		3		PS 270	Environmental Ecology		3
GT 102	American Government		3		CH 221	Organic Chemistry I		3
CS 202	Programming in C++ I		3		PS 360	Water Quality		3
AE 213	Prin. of Ag. Econ.		3		AR 214 MU 213	Art Appreciation or Music Appreciation		3
SA 223	Oral Communication		3		PS 360	Forestry Environment		3
					CH 221L	Organic Chemistry Lab		1
	TOTAL		15			TOTAL		16
Junior Year (25)								
PS 315	Soils		3		ZZ 314	Free Elective		3
PS 391	Concepts of Environ. Science		3		PS 458	GIS App Natural Resources		3
PS 439	Soil Microbiology		3		PS 497	Ag. Environmental Law		3

BI 453	Risk Management & Assessment		3		PS 480	Soil Chemistry		3
PS 351L	Soils Lab		<u>1</u>					
	TOTAL		13			TOTAL		12
Senior Year (31)								
PS 437	Soil Conservation & Land Use		3		PS 448	Soil Management		3
BI 481	Aquatic Toxicology		3		PS 460	Watershed Hydrology		3
AE 467	Land Economics		3		PS 493	Soil Physics		3
AG 439	Internship		3		PS 483	Environmental Science		3
PS 437	Soil Cons Land Use		3		PS 495	Experimental Design		<u>3</u>
AG 486	Agriculture Seminar		<u>1</u>					
	TOTAL		16			TOTAL		15

Bachelor of Science in Agricultural Sciences: Agricultural Education Emphasis (120 Credit Hours)

Freshman Year (29)								
First Semester	Class		Hrs.		Second Semester	Class		Hrs.
AE 111	Fund. & Concepts of Ag		3		BI 111	Intro. to Biology I		3
EN 111	Composition I		3		EN 112	Composition II		3
HI 111	World Civilization I		3		CH 121	General Chemistry I		3
MA 121	College Algebra		3		CH 121L	General Chemistry I Lab		1
ND 101	Health and Wellness		1		PE 101 MS 102	Physical Education or Foundations of Leadership		1
PH 132	General Psychology		3		BI 111L	Intro to Biology I Lab		<u>1</u>
UL 101	University Life		<u>1</u>					
	TOTAL		17			TOTAL		12
Sophomore Year (31)								
AE 213	Prin. of Ag. Economics		3		BA 233	Bus. Comp. Applications		3
AR 214 MU 213	Art Appreciation or Music Appreciation		3		ED 200	Social Studies/Multicultural Ed.		3
EN 213	Studies in Literature		3		PH 225	Adolescent Psychology		3
SA 223	Oral Communication		3		AN 318	Career Education		3
AS 213	Animal Production		<u>3</u>		PS 122	Crop Production		<u>4</u>
	TOTAL		15			TOTAL		16
Junior Year (32)								
AG 315	Farm Mechanics I		3		PH 336	Educational Psychology		3
AN 315	Prin. Phil. of Ag. Edu.		3		AE 478	Fm Org Management		4
ED 351	Classroom Management		3		AN 320	Leadership		3
PS 315	Soils		3		ED 348	Foundations of Education		3
PS 315	Soils				ZZ 312	Free Elective		<u>3</u>
PS 315L	Soils Lab		1					
PS 345	Landscape Gardening		<u>3</u>					
	TOTAL		16			TOTAL		16

Senior Year (28)							
AE 463	Agri Statistics		3		AN 437	Direct Teaching	<u>12</u>
AN 316	Special Methods in Ag.		3				
AN 480	Problems and Trends in Ag. Ed.		3				
ED 498	Teaching Reading in the Sec. School		3				
PS 475	Plant Breeding		3				
AG 486	Agriculture Seminar		<u>1</u>				
	TOTAL		16		TOTAL		12

Bachelor of Science in Agricultural Sciences: Horticulture Emphasis (120 Credit Hours)

Freshman Year (35)							
First Semester	Class		Hrs.		Second Semester	Class	Hrs.
AE 111	Fund. & Concepts of Ag		3		AE 213 AE 214	Prin. of Ag. Economics or Ag. Finance	3
BI 111	Intro. to Biology I		3		PS 122	Crop Production	4
CH 121	General Chemistry		3		BI 124	General Botany	3
CH 121L	General Chemistry Lab		1		CH 122	General Chemistry II	3
EN 111	Composition I		3		CH 122L	General Chemistry II Lab	1
MA 121	College Algebra		3		EN 112	Composition II	<u>3</u>
UL 101	University Life		<u>1</u>				
	TOTAL		17		TOTAL		17

Sophomore Year (32)							
AS 213	Animal Production		3		AR 214	Art Appreciation	3
CH 221	Organic Chemistry I		3		HI 112	World Civilization	3
CH 221L	Organic Chemistry Lab		1		CS 201	Basic Programming	3
PS 205	Principles of Genetics		3		SA 223	Oral Communication	3
EN 213	Studies in Literature		3		PS 220	Prin. Cell Tissue	3
HI 111	World Civilization I		<u>3</u>		PS 221L	Prin. Cell & Tissue Culture Lab	<u>1</u>
	TOTAL		16		TOTAL		16

Junior Year (29)							
PS 316	General Horticulture		4		PS 305	Plant Dev. & Physiology	3
PS 439	Soil Microbiology		3		ZZ 312	Free Elective	3
PS 315	Soils		3		PS 401	Small Fruit Production	3
BI 3PS 315L25L	Soils Lab		1		PS 449	Vegetable Production	<u>3</u>
BI 346	General Entomology		3				
PS 345	Landscape Gardening		<u>3</u>				
	TOTAL		17		TOTAL		12

Senior Year (26)							
AG 439	Agri Statistics		3		PS 475	Plant Breeding	3
PS 459	Soil Fertility		3		PS 482	Weed Control	3
PS 441	Gen. Plant Pathology		3		PS 483	Environmental Science	3

AE 463	Agri. Statistics		3		PS 484	Greenhouse Crops		3
AG 486	Agriculture Seminar		1					
	TOTAL		13			TOTAL		12

Bachelor of Science in Agricultural Sciences: Agricultural Biotechnology Emphasis (120 Credit Hours)

Freshman Year (31)								
First Semester	Class		Hrs.		Second Semester	Class		Hrs.
CH 121	General Chemistry		3		CS 100	Intro to Computers		1
CH 121L	General Chemistry Lab		1		CH 122	General Chemistry		3
EN 111	Composition I		3		CH 122L	General Chemistry I Lab		1
HI 111	World Civilization I		3		EN 112	Composition II		3
UL 101	University Life		1		HI 111	World Civilization		3
BI 125 BI 125	Intro. to Biology I or General Biology I		3		ND 101	Health and Wellness		1
PE 101 MS 101	Physical Education or Fund of Leadership & Management I		1		PS 122	Crop Production		4
	TOTAL		15			TOTAL		16
Sophomore Year (31)								
EN 213	Studies in Literature		3		PH 132	General Psychology		3
CH 221	Organic Chemistry		3		SA 223	Oral Communication		3
CH 221L	Organic Chemistry Lab		1		CH 222	Organic Chemistry II		3
SS 111	Social Institutions: Their Nature and C		3		CH 222L	Organic Chemistry II Lab		1
MA 121	College Algebra		3		PS 220	Prin of Cell Tissue Culture		3
PS 205	Principles of Genetics		3		PS 221L	Cell Tissue Culture Lab		1
	TOTAL		16			TOTAL		14
Junior Year (29)								
BI 327	Cell Biology		3		PS 305	Plant Develop Physiology		3
BI 327L	Cell Biology Lab		1		PS 320	Biomass and Bioenergy		3
PS 346	General Entomology		3		PS 346L	General Entomology Lab		0
PS 439	Soil Microbiology		3		ZZ 312	Free Elective		3
PS 316	General Horticulture		4		CH 331	Biochemistry		3
PS 316L	Gen Horticulture Lab		0		CH 331L	Biochemistry Lab		1
PS 300	General Bioethics		3					
	TOTAL		17			TOTAL		13
Senior Year (29)								
AE 463	Agri Statistics		1		PS 495	Experimental Design		3
PS 330	Intro. to Biotechnology		3		AG 439	Internship		3
PS 330L	Intro. to Biotechnology Lab		1		PS 403	Current Issues in Biotech		3

PS 441	General Plant Pathology		3		PS 475	Plant Breeding		3
AG 486	Agriculture Seminar		1					
AG 439	Internship		3					
	TOTAL		14			TOTAL		12

DEPARTMENT OF HUMAN SCIENCES

Martha Ravola, Ph.D., Interim Chair

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The Department of Human Sciences is a vibrant, interdisciplinary department where bright and socially competent students focus on today's most critical issues facing human well-being and society-at-large. Our two degree programs, Human Development & Family Science (HDFS) and Food, Nutrition and Community Health Sciences (FNCS), accredited by the American Association of Family and Consumer Sciences prepare students for careers in various industries that include but are not limited to education, social services, business, community service agencies, health, hospitals, human services, and allied sectors.

MISSION STATEMENT

The mission of the Department of Human Sciences is to prepare students for employment &/or graduate school in human development & family science, & food, nutrition, & community health sciences to promote positive well-being, healthy relationships, & adequate resources for individuals, families, & communities in a diverse, global environment. This mission is accomplished through dissemination of current knowledge, education of professionals, & provision of research-based programs.

To achieve this mission, the Department of Human Sciences will:

- provide a high-quality, rigorous plan- of- study for each of its undergraduate degree programs within the Department of Human Sciences; thereby preparing its students to achieve scholarships that allows them to succeed in graduate school or in professional employment; develop leadership skills, and serve communities;
- support the Land-Grant function of the University in the areas of teaching, research, and extension services while establishing relationships that help meet current and further community needs and responding to demands of a democratic and constantly changing society;
- provide comprehensive student services, such as advisement, counseling, tutoring, cultural activities, and instructional methodologies delivered in a safe, healthy environment conducive to personal, professional, and social development;
- offer a broad range of experiential programs that prepare students to compete professionally within the human sciences field and contribute broadly to society's well-being.

Human Development and Family Science Program:

The mission of the Human Development and Family Science program is to prepare students for employment or graduate schools in programs that promote quality of life for individuals, families and communities. This will be accomplished through interdisciplinary study of human growth and development across the lifespan in the context of family, culture, and society. Through coursework and practical experiences, graduates will be prepared for professional careers in human service oriented agencies that promote the well-being of children, youth, adults, and families.

The Bachelor of Science Program in Human Development and Family Science is offered in two formats: (1) an on campus program and (2) a fully online program. The on-campus program serves locally residing students, while the online program serves students from any geographic location who will benefit from the flexibility, convenience, and accessible format. Students have the option to choose either of the two formats and derive the same educational value.

Food, Nutrition and Community Health Sciences (FNCHS) Program:

The mission of the Food, Nutrition and Community Health Sciences program is to prepare students in Food, Nutrition and Community Health Sciences to enter the professional 21st century global workforce and/or graduate school. Through an intense plan of study, utilizing diverse pedagogies, evidence based knowledge, practicum learning, community collaborations, innovative technologies and research, students are equipped with the knowledge, technical and leadership abilities to help meet the nutrition and health related challenges of. Individuals, families, and communities.

SPECIAL FEATURES**Child Development Learning Center (CDLC):**

The Mission of the Child Development Learning Center is twofold: 1) to provide university students with observational, participatory, and educational experiences through a high-quality exemplary child development center; (2) to foster continued growth and development of young children by providing a safe, developmentally appropriate and responsive center-based learning environment. The Child Development Learning Center (CDLC) is housed within the department of Human Sciences and serves as the on-campus, applied learning site for Human Development & Family Science and Food, Nutrition and Community Health Sciences students. The CDLC serves children, six weeks to five years old whose parents typically are students or employees of Alcorn State University. CDLC also enrolls children whose parents are not associated with the University.

Nutrition Laboratory:

The Food, Nutrition and Community Health Sciences program has an industrial laboratory kitchen. The Laboratory Kitchen is located within the department to provide students with experiential learning and research opportunities for courses in, Nutrition Practicum, Meal Management, and related courses.

Practicum:

The curricula in the Department of Human Sciences offer students a broad general education with emphasis on developing critical thinking in a prescribed and integrative manner in the areas of human development, food, nutrition and community health sciences, and specialized courses in the field of study.

Practical experiences are provided for Human Development and Family Sciences majors in settings relevant to the well-being of individuals and families such as preschools, day care centers, Child Advocacy Service agency, Cooperative Extension, and related human service agencies. Similarly, the Food, Nutrition and Community Health Sciences Program majors gain practical experience in hospitals, nursing homes, community health departments, Cooperative Extension, and other health related agencies.

Human Sciences Tutoring Services:

The Human Sciences tutoring services, located within the Eunice Powell Bldg., offers students an array of services ranging from assistance with course work, study groups, advisement on career planning, graduate school, scholarships, and related supportive services.

Academic Regulations:

The Department of Human Sciences requirements for graduation includes acquiring a total of 120 semester hours comprised of core courses and discipline related courses. Human Sciences students must earn a grade of “C” or better in all their major courses. An exit examination is required of all Human Sciences students who must make a passing grade of “C”.

Student Organizations:

The department has three student organizations: (1) Kappa Omicron Nu, (2) Human Sciences Club and (3) Active Minds Chapter. These organizations facilitate student engagement in communities, professional organizations, scholarly activities, peer support, and a sense of belongingness.

In order to gain membership into any of the Student Organizations within the department, students are required to join the American Association of Family and Consumer Sciences (AAFCS) or a professional organization within their field by their sophomore year. The same criteria are required to be elected as Officers or any other positions within the department.

Human Development and Family Science (120 Credit Hours)

Freshman Year (33)							
First Semester	Class		Hrs.		Second Semester	Class	Hrs.
EN 111	Composition I		3		EN 112	Composition II	3
BI 111	Intro. to Biology I		3		PY 111	Physical Science I	3
MA 121	College Algebra		3		PH 132	General Psychology	3
SY 235	General Sociology		3		AR 214	Art Appreciation	3
UL 101	University Life		1		MU 213	Music Appreciation	3
ND 101	Health and Wellness		1		CO 103	Intro. to Social Media	3
CS 100	Computer Science		1				
	TOTAL		15		TOTAL		18
Sophomore Year (36)							
HD 201	Human Development		3		HD 302	Child Care Administration	3
HS 315	Parent/Preschool Relations		3		HD 317	Early Intervention	3
HD 331	Parenting		3		HD 318	Early Literacy	3
HD 353	Child Development		3		HD 320	Guidance of Young Children	3
HD 347	Infant Development		3		SW 300	Child Advocacy	3
HD 367	Creative Arts		3		HS 224	Family Health	3
	TOTAL		18		TOTAL		18
Junior Year (30)							
HS 203	Survey of Human Sciences		3		HD 335	Public Policies in Child Care	3
HS 327	Marriage & Family Relations		3		HD 432	Adult Development	3
HD 430	Family Dynamics		3		HD 434	Introduction to Gerontology	3
HD 425	Prin. & Practices of Teaching		3		HD 482	Issues and Trends in Human Development	3
HD 428	Positive Youth Development		3		HD 485	Contemporary Issues Affecting the Quality of Life (Capstone)	3
	TOTAL		15		TOTAL		15
Senior Year (21)							
HD 420	Child & Community Life		3		HD 450	Practicum	6
HS 427	Management of Family Resources		3		HS 494	Thesis	3
HS 475	Consumer Education		3				
HS 493	Seminar		3				
	TOTAL		12		TOTAL		9

Special Note: Courses HD 331, 367, 347, 318, 302, 320, 315 and 317 include 15 hours each of related laboratory/experiential learning activities. Course HD 425 includes 20 hours of related laboratory/experiential learning activities. Course HD 450 requires 400 hours of field experiences in related areas to align with student career choice.

Food, Nutrition and Community Health Sciences (120 Credit Hours)

Freshman Year (29)							
First Semester	Class	Hrs.		Second Semester	Class		Hrs.
EN 111	English Composition	3		EN 112	English Composition		3
HS 203	Survey Human Sciences	3		MA 121	College Algebra		3
UL 101	University Life	1		PH 132	General Psychology		3
BI 125	General Biology I	3		SS 111	Social Institutions		3
BI 125	General Biology Lab	1		ND 101	Health and Wellness		1
CH 121	Chemistry I	3		CS 100	Introduction to Computer		1
CH 121L	Chemistry I Lab	1					
	TOTAL	15			TOTAL		14
Sophomore Year (30)							
SA 223	Oral Communication	3		ND 214 L	Meal Management		3
EN 213	Studies in Literature	3		FN 218	Community and Public Health		3
CO 103	Social Media	3		EN 351	Technical Writing		3
FN 210	Careers and Ethics In FNCHS	3		ND 325	Nutritional Biochemistry		3
ND 225	Introduction to Nutrition	3		RT 331	Statistics for Health Sciences		3
	TOTAL	15			TOTAL		15
Junior Year (30)							
FN316	Current Trends in Food and Nutrition and Community Health Sciences	1		ND 322	Community Nutrition		3
FN 330	Multicultural and Global Health	3		FN 323	Principles of Epidemiology		3
FN 332	Health Education & Promotion	3		FN 329	Introduction to Grant Writing & Management		2
ND 321	Nutrition Education & Counseling	3		FN 324	Health Policy Law & Economics		3
ND 230	Nutritional Assessment	3		ND 320	Nutrition Thru Life Span		3
FN 400	Health, Nutrition & Disease	3					
	TOTAL	16			TOTAL		14
Senior Year (31)							
HS 493	Seminar	3		FN 451	Practicum		6
FN 420	Social Marketing In Health Communication	3		FN 445	Community Health Advocacy		3
FN 424L	Community Health Program Planning	4		FN 485	Professional/Scientific Writing		3
FN 426	Health Disparities	3		FN 495	CHES Exam Preparation		3
FN 448	Behavior And Health Theories	3					
	TOTAL	16			TOTAL		15

Special Note: All students of the FNCHS program are required to join at least one nationally recognized organizations related to the areas of Food, Nutrition and/or Community or Public Health. Additional fees may apply for organizational memberships, lab coats, practicum uniforms, malpractice insurance, professional exam and travel etc.



SCHOOL OF ARTS & SCIENCES

• Biological Sciences • Chemistry & Physics • English, Languages and Mass
Communication • Fine Arts • Mathematics and Computer Science • Military Science
• Social Work • Social Sciences

SCHOOL OF ARTS AND SCIENCES

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GENERAL INFORMATION

The School of Arts and Sciences consists of the Departments of *Biological Sciences, Chemistry and Physics, English, Languages and Mass Communication, Fine Arts, Mathematical and Computer Sciences, Military Science, Social Sciences, and Social Work*. The principle thrust of the School of Arts Sciences is to provide all students with the ability to think critically; to speak and write clearly; to compute accurately; to explain the central social, historical, creative, and cultural developments of civilization; to protect and inhabit the natural environment and comprehend its physical make-up; to function skillfully in an ever-changing technological environment; and to employ this knowledge and these skills in developing a set of personal values and attitudes that induce ethical and moral reasoning.

The School offers undergraduate programs leading to the *Bachelor of Science* in Biology, Chemistry, Mathematics, and Computer Science. The *Bachelor of Arts* degree is offered in Communication, English, Music and Social Science. The Bachelor of Music degree is offered in the Department of Fine Arts and Bachelor of Social Work degree is offered in the Department of Social Work. Students seeking a degree in teaching may obtain a Bachelor's degree in Secondary Education in Biology, Chemistry, English, Music, Mathematics, and Social Science. Teaching endorsements in Science, Mathematics, and the Social Sciences are also offered in the School of Arts and Sciences. The Biological Sciences Department offers a Master of Science degree in Biology, and the Department of Mathematical and Computer Sciences offers a Master of Computer and Information Sciences degree.

Curricula programs offered by each department are structured to allow students straightforward access and scheduling of courses in a sequential, semester-by-semester approach. For this reason, courses are scheduled and taught following the layout as they appear in the *ASU University Catalog* and the student's Program Status Sheets (acquired from the major department). Students are expected to enroll in courses in the sequence depicted in these curricula displays; otherwise, they will get off track and may find it difficult to get back on track. In the event this happens, students will have to attend *one, two, or more* summer sessions to get back on track or to move on an accelerated path.

Students who complete a major program in the School of Arts and Sciences will have gained the skills necessary to be lifelong learners, to be philosophers of the basic principles of the creative arts, mathematicians, scientists, historians, effective communicators, problem solvers, and educators. They will meet or exceed expectations for competitive work in graduate and professional schools, and will be able to make positive contributions to the global sustainability of our community, environment, and the world.

DEPARTMENT OF BIOLOGICAL SCIENCES

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The mission of the Department of Biological Sciences is to provide students with a broad-based understanding of the principles of biological sciences that fully exploit existing and emerging technologies, and to prepare students to excel as researchers, educators, healthcare professionals, and for other careers in the private and/or public sectors, while serving the community, the state, the nation and globally in areas related to life sciences.

Members of the faculty and the professional staff in the department strive to prepare students for scholarship, research, and community service in the area of biological sciences by:

- a. offering a preemptive undergraduate curricula which will engage students to pursue professional or graduate studies, pursue a career in secondary education in biology, or enable them to gain employment;
- b. providing Master of Science degree Programs that will enable students to pursue advanced academic and scholarly research training.

To accomplish its mission, the department has set several goals/objectives. These goals are reviewed and revised based upon student outcome data. The undergraduate curricula in Biological Sciences are designed to provide broad-based skills and knowledge of the fundamental concepts of biology and to prepare students for scholarship, research and service in the areas of the biological sciences including the rapidly expanding field of molecular and nano-biology. Specific courses will also meet the requirements for general biology for non-majors. The biology curricula are integrated for the use of various methods of assessing student learning outcomes with opportunities for self-assessment. Our faculty members work incessantly to assure that all students receive unique and enriching learning opportunities to excel academically.

The Department of Biological Sciences offers the following degree programs:

1. **Baccalaureate in Science (B.S.) degree in Biology**
2. **Baccalaureate in Science (B.S.) degree in Biology Education**
(This curriculum is offered in collaboration with the School of Education and Psychology).

Students majoring in Biology will have opportunities to choose the following concentrations to meet the needs of their educational and career goals:

- a. **Molecular Biology (Biotechnology)**
- b. **Environmental Biology and Ecology**
- c. **Health Science**
- d. **Pre-Professional**

This specialized curriculum prepares students for admission to a professional program such as: Medicine, Dentistry, Pharmacy, Veterinary Medicine and other health science professional programs.

- e. **Pre-Physical Therapy**

After completion of this curriculum, a student will be able to seek admission to a Doctor of Physical Therapy program at a Physical Therapy degree granting institution of her/his choice.

To facilitate the specific needs of our students, the following two-year, non-degree curriculum is offered:

- f. **Pre-Nursing**

This curriculum prepares students for admission to a B.S. in Nursing Program at Alcorn State University or another institution of choice. Pre-requisite coursework varies from institution to institution, so students should check with their institution of choice to ensure that the appropriate coursework is completed.

After being admitted to Alcorn State University and choosing Biology as a major, each student is required to meet with appropriate faculty advisors to discuss detailed academic/curricular requirements.

The faculty advisor will assist the student with the chosen curriculum and/or course offerings. The student should follow the curriculum to successfully complete the B.S. degree.

The department offers the following graduate programs:

- a. **Master of Science in Biology and an Online Master of Science Degree in Biology**
This curriculum supports students' needs and interests to pursue advanced studies to doctoral programs or to prepare for a career of their choice;
- b. **Master of Science in Secondary Education with an Endorsement in Biology**
This Master of Science Degree level curriculum is developed in collaboration with the School of Education and Psychology.

Departmental Comprehensive Exit Examination: To fulfill requirements for the completion of a B.S. degree in the Biological Sciences, all students must pass the Departmental Exit Examination. The content and composition of this comprehensive examination will satisfy the requirements for the learning outcomes assessment in the Biological Sciences. The exit examination includes skills and knowledge from the courses in the biological sciences. The examination is given to all graduating seniors in November and March of each academic year.

Suggestion to Prospective Biology Students: Detailed curricula listing of courses by year and semester for each concentration is available for advisement as well as in the department's main office. At the time of registration, it is to the advantage of a student to ensure that the selection of courses follows the published Curriculum Plan for the designated major and concentration. A student must seek assistance or advice from his/her faculty advisor to avoid frustrations, disappointments, or a "mix-up" in course selection. This becomes critical with regard to certain advanced level courses that are not offered each semester. Biology majors must complete major courses with a minimum grade of "C" in all major courses to avoid retaking the course or delaying graduation.

Consultation with faculty advisors prior to registering for courses will eliminate or prevent problems or the need for substitutions and/or changes of courses at the time of graduation. Biology majors must periodically meet their respective faculty advisors and/or the Department Chairperson to ensure good standing with reference to meeting the needs of their chosen academic curriculum.

GRADUATION REQUIREMENTS

To receive a B.S. Degree in Biology, a candidate must:

- a. complete a designated number of semester hours of coursework (120 hours) as prescribed in the Curricula for each area of concentration;
- b. receive a minimum grade of "C" or above in all biology courses as required for the chosen area of concentration;
- c. pass the Departmental Exit Examination.

Any exceptions to these requirements must be approved by the department's chairperson and when necessary, by the Dean of the School of Arts and Sciences.

CURRICULAR SUPPORT SERVICES

To provide opportunities for students to gain additional experiences and knowledge in support of the curricula, and to prepare them for admission to professional or graduate schools, the Department of Biological Sciences have developed and instituted several unique and enriching programs. Students interested in taking advantage of these programs should contact the appropriate faculty advisor of a given program. Below is a list of major resources/programs currently available in the Department:

1. **Biology Computer Learning Laboratory:** This laboratory is equipped with computers and Internet connectivity with printing capability. Appropriate software support is available for student assigned course or research work requiring assistance.

Computers are also supported with statistical software for statistical data analysis. The department's plans to have hardware and software to facilitate WEB access for online group discussions on Critiquing Research Papers sponsored by ASU-Pennsylvania State University Bridge to Doctoral Program in Biomedical Sciences.

2. **Research Opportunities in Faculty Directed Research Projects:** Faculty members are engaged in externally funded research projects. These projects support both graduate and undergraduate students. Students are encouraged to seek available positions in the department with faculty members who are principal investigators of research projects as well as other research and/or intern opportunities. These externally funded research programs will provide students with excellent competitive research experiences, and in some cases, with financial assistance. Many of these programs provide support for travel expenses to regional or national scientific conferences.

Bachelor of Science Degree: Biology Concentration (120 Credit Hours)

This curriculum fulfills requirements for B.S. degree in Biology. Students with a B.S. degree in Biology may advance to the M.S. Degree Program in Biology or a closely related area at Alcorn State University or any accredited institution offering an advanced degree. This B.S. degree program also qualifies students for entry into selected professional programs upon the completion of qualifying entrance examinations. This degree prepares students for entry level employment opportunities. Enrollment in advanced level biology courses (BI 300 and above) requires exiting from the First Year Experience Program at Alcorn State University. For successful completion of biology courses, a student must receive a minimum grade of "C". Prior to registering for advanced courses (300 and 400 levels), students must complete the appropriate prerequisites. A transfer student who has completed biology courses at other institutions must seek advisement from a departmental academic advisor or the chairperson.

Upon completion of a curricular program and passing a departmental exit examination, a student will receive a B.S. degree in Biology from Alcorn State University.

Biology Major

A Proposed Program of Study for the Baccalaureate Degree in Biology (120 Credit Hours)

Freshman Year (32)							
First Semester	Class		Hrs.		Second Semester	Class	Hrs.
CH 121	General Chemistry I		3		CH 122	General Chemistry II	3
CH 121L	General Chemistry I Lab		1		CH 122L	General Chemistry II Lab	1
BI 125 BI 191	General Biology I or Honors Biology I		3		BI 126 BI 192	General Biology II or Honors Biology II	3
BI 125L BI 191L	General Biology I Lab or Honors Biology I Lab		1		BI 126L BI 192L	General Biology II Lab or Honors Biology II Lab	1
EN 111	Composition I		3		EN 112	Composition II	3
MA 135	Pre - Calculus		4		MA 181	Calculus I w/Ana. Geom.	4
UL 101	University Life		1		ND 101	Health and Wellness	1
	TOTAL		16		TOTAL	TOTAL	16
Sophomore Year (29)							
BI 215L	Comparative Anatomy Lab		1		PY 112	Physical Science II	3
BI 215	Comparative Anatomy		3		CH 315	Survey of Org. Chemistry	3

SA 223	Oral Communication		3		CH 315L	Survey of Org. Chem. Lab		1
PY 111	Physical Science I		3		EN 213	Studies in Literature		3
HI 111	World Civilization I or General Sociology		3		HI 112	World Civilization II or General Psychology		3
SY 235					PH 132			
					MU 213	Music Appreciation or Art Appreciation		3
					AR 214			
	TOTAL		13			TOTAL		16
Junior Year (30)								
BI 335	Human Anatomy & Physiology I		3		BI 300	Biological Chemistry		3
BI 335L	Human Anatomy & Physiology I Lab		1		BI 336	Human Anatomy & Physiology II		3
BI 325	General Microbiology		3		BI 336L	Human Anatomy & Physiology II Lab		1
BI 325L	General Microbiology Lab		1		BI 390	Environmental Bio. & Ecol.		3
BI 355	General Parasitology		3		BI-390L	Environmental Bio.& Ecol. Lab		1
BI 355L	General Parasitology Lab		1		EC 201	Principles of Economics I		3
BI 361	Cell & Molecular Biology I		3					
BI 361L	Cell & Molecular Biology I Lab		1					
	TOTAL		16			TOTAL		14
Senior Year (29)								
BI 423	Introduction to Biostatistics		3		BI 420	Medical Microbiology		3
BI 425	Prin. of Immunology		3		BI 420L	Medical Microbiology Lab		1
BI 425L	Prin. of Immunology Lab		1		BI 446	Histology		3
BI 445	Genetics		3		BI 446	Histology Lab		1
BI 445L	Genetics Lab		1		BI 328	Conceptual Analysis and Critical Thinking I		3
BI 481	Introduction to Toxicology		3		BI*300-400	Elective		3
					BI 300-400	Elective (lab)		1
	TOTAL		14			TOTAL		15

*Suggested Biology Elective: BI 324 General Botany with lab, BI 482 Applied Physiology with lab, BI 400 Evolution, or other courses with the approval of Curriculum Advisor

Bachelor of Science Degree: Biology Education Concentration (120 Credit Hours)

This curriculum is designed to provide the fundamental concepts in the content areas such as zoology, botany, general biology, and other specialized areas in the biological sciences needed for biology educators. Courses are chosen in order to provide the prospective science educator with a broad background in the biological sciences. The department offers methodology courses in conjunction with the Department of Education and Psychology. The methodology courses are intended to familiarize students with various pedagogical theories and their application to learning, and materials that are used to teach biology.

After completing 44 semester credit hours of Core Courses with a minimum grade point average of 2.75, and a cumulative grade point average of 2.75, with a minimum grade of "C" or better in the prescribed math and English courses, the student must apply for admission to the Teacher Education Program. To be admitted to the School of Education and Psychology, the student must pass Praxis I.

Freshman Year (32)						
First Semester	Class	Hrs.		Second Semester	Class	Hrs.
BI 121	General Zoology I	3		CH 122	General Chemistry II	3
BI 121L	General Zoology I Lab	1		CH 122L	General Chemistry II Lab	1
CH 121	General Chemistry I	3		BI 124	General Botany	3
CH 121L	General Chemistry I Lab	1		BI 124L	General Botany Lab	1
MA 121	College Algebra	3		MA 132	Trigonometry	3
EN 111	Composition I	3		EN 112	Composition II	3
UL 101	University Life	<u>1</u>		HI 111	World Civilization I	<u>3</u>
	TOTAL	15			TOTAL	17
Sophomore Year (33)						
AR 214	Art Appreciation or Music Appreciation	3		BI 336	Human Anatomy & Physiology II	3
SA 223	Oral Communication	3		BI 336L	Human Anatomy & Physiology II Lab	1
BI 311	Survey of Biological Sciences	3		BI 226	Developmental Biology	3
BI 335	Human Anatomy & Physiology I	3		BI 226L	Developmental Biology Lab	1
BI 335L	Human Anatomy & Physiology I Lab	1		HI 112	World Civilization II	3
EN 213	Studies in Literature	<u>3</u>		PH 132	General Psychology	3
				ED 200	Social Studies/Multicultural Ed	<u>3</u>
	TOTAL	16			TOTAL	17
Junior Year (30)						
BI 361	Cell & Molecular Biology I	3		BI 485	Teaching Science in the Secondary School	3
BI 361L	Cell & Molecular Biology I Lab	1		BI 328	Conceptual Analysis and Critical Thinking I	3
BI 325	General Microbiology	3		PH 326	Psychology of the Excep. Child	3
BI 325L	General Microbiology Lab	1		ED 498	Reading in the Secondary School	3
ED 302	Teaching Practicum/Technology	3		BI 390	Env. Bio. & Ecology	3
ED 351	Managing Classroom Beh.	<u>3</u>		BI 390L	Env. Bio. & Ecology Lab	<u>1</u>
	TOTAL	14			TOTAL	16
Senior Year (25)						
BI 445	Genetics	3		ED 468	Directed Teaching	<u>12</u>
BI 445L	Genetics Lab	1				
ED 348	Foundations of Ed.	3				
PH 347	Measurement & Evaluation	3				
BI 300-400	Biology Elective	<u>3</u>				
	TOTAL	13			TOTAL	12

B.S. Degree in Biology: Molecular Biology (Biotechnology Major) (120 Credit Hours)

The purpose of this curriculum is to prepare students in cellular and molecular bioscience, as well as genetic engineering. The students will be provided with a foundation in the principles of genetics and molecular biology of both prokaryotic and eukaryotic organisms. After successful completion of this program, the student will be able to gain additional specialized training in forensic, pharmaceutical, or seek in employment in specialized laboratory.

Freshman Year (31)							
First Semester	Class		Hrs.		Second Semester	Class	Hrs.
BI 125	General Biology I or General Zoology I		3		BI 126	General Biology II or General Zoology II	3
BI 121					BI 122		
BI 125L	General Biology I Lab or General Zoology I Lab		1		BI 126L	General Biology II Lab or General Zoology II Lab	1
BI 121L					BI 122L		
CH 121	General Chemistry I		3		CH 122	General Chemistry II	3
CH 121L	General Chemistry I Lab		1		CH 122L	General Chemistry II Lab	1
EN 111	Composition I		3		EN 112	Composition II	3
MA 181	Calculus I w/Ana. Geom.		4		MA 182	Calculus II w/Ana. Geom.	4
UL 101	University Life		1				
	TOTAL		16		TOTAL		15
Sophomore Year (31)							
CH 221	Organic Chemistry I		3		CH 222	Organic Chemistry II	3
CH 221L	Organic Chemistry I Lab		1		CH 222L	Organic Chemistry II Lab	1
PY 215	General Physics I (Non-Calculus)		3		PY 216	General Physics II (Non-Calculus)	3
PY 215L	General Physics I (Non-Calculus) Lab		1		PY 216L	General Physics II (Non-Calculus) Lab	1
HI 111	World Civilization I		3		HI 112	World Civilization II	3
EN 213	Studies in Literature		3		PH 132	General Psychology	3
					MU 213 or AR 214	Music Appreciation or Art Appreciation	3
	TOTAL		14		TOTAL		17
Junior Year (29)							
BI 325	General Microbiology		3		CH 332	Biochemistry II	3
BI 325L	General Microbiology Lab		1		CH 332L	Biochemistry II lab	1
CH 331	Biochemistry I		3		BI 362	Cell & Molecular Biology II	3
CH 331L	Biochemistry I Lab		1		BI 362L	Cell & Molecular Biology II Lab	1
BI 361	Cell & Molecular Biology I		3		BI 328	Conceptual Analysis and Critical Thinking I	3
BI 361L	Cell & Molecular Biology I Lab		1		SA 223	Oral Communications	3
BI 328	Conceptual Analysis and Critical Thinking I		3				
	TOTAL		15		TOTAL		14

Senior Year (29)							
BI 423	Introduction to Biostatistics		<u>3</u>		BI 390	Env. Biology & Ecology	3
BI-445	Genetics		3		BI 390	Env. Biology & Ecology	1
BI-445L	Genetics Lab		1		BI 400	Evolution	3
BI 403	Mycology		3		BI 498	Bio. Research Instrumentation	3
BI 403L	Mycology Lab		1		BI 498L	Bio. Research Instrumentation Lab	1
BI 425	Prin. of Immunology		3		BI 402	Bioethics	<u>3</u>
BI 425L	Prin. of Immunology Lab		<u>1</u>				
	TOTAL		15		TOTAL		14

B. S. Degree in Biology: Environmental Biology and Ecology Major (120 Credit Hours)

The Environmental Biology and Ecology concentration is an interdisciplinary program that addresses global environment-related issues.

The curriculum is designed to provide instruction to students with reference to the processes and associated methodologies that are needed to assess potential beneficial and descriptive impacts on complex environmental systems. Students are advised to check with their faculty advisors for any additions, substitutions, waivers and deletions of courses in this curriculum.

Freshman Year (30)							
First Semester	Class		Hrs.		Second Semester	Class	Hrs.
CH 121	General Chemistry I		3		CH 122	General Chemistry II	3
CH 121L	General Chemistry I Lab		1		CH 122L	General Chemistry II Lab	1
BI 125 or BI191	General Biology I or Honors Biology I		3		BI 126 or BI 192	General Biology II or Honors Biology II	3
BI 125L or BI 191L	General Biology I Lab or Honors Biology I Lab		1		BI 126L or BI 192L	General Biology II Lab or Honors Biology II Lab	1
EN 111	Composition I		3		EN 112	Composition II	3
MA 121	College Algebra		3		MA 132	Trigonometry	3
UL 101	University Life		<u>1</u>		ND 101	Health and Wellness	<u>1</u>
	TOTAL		15		TOTAL		15
Sophomore Year (34)							
SA 223	Oral Communications		3		MU 213 or AR 214	Music Appreciation or Art Appreciation	3
BI 215	Comparative Anatomy		3		PH 132	General Psychology	3
BI 215L	Comparative Anatomy Lab		1		EC 202	Principles of Economics II	3
SP 111	Spanish I		3		PY 111	Physical Science I	3
EN 213	Studies in Literature		3		SP 112	Spanish II	3
HI 111 or SY 235	World Civilization I or General Sociology		<u>3</u>		BI 328	Conceptual Analysis and Critical Thinking I	<u>3</u>
	TOTAL		16		TOTAL		18

Junior Year (27)							
BI 325	General Microbiology		3		BI 318	Field Biology & Ecology	3
BI 325L	General Microbiology Lab		1		BI 318L	Field Biology & Ecology	1
BI 355	General Parasitology		3		BI 390	Env. Biology & Ecology	3
BI 355L	General Parasitology Lab		1		BI 390L	Env. Biology & Ecology Lab	1
BI 361	Cell & Molecular Biology I		3		BI 300	Biological Chemistry	3
BI 361L	Cell & Molecular Biology I Lab		1		BI 324	Botany	3
					BI 324L	Botany Lab	1
	TOTAL		12		TOTAL		15
Senior Year (29)							
BI 423	Introduction to Biostatistics		3		BI 348	Plant Physiology	3
BI 445	Genetics		3		BI 348L	Plant Physiology Lab	1
BI 445L	Genetics Lab		1		BI 400	Evolution	3
BI 453	Environmental Risk Assessment		3		BI 456	Special Topics in Environmental Biology/Ecology	3
BI 481	Introduction to Toxicology		3		BI 462	Environmental Policy	3
BI 449	Senior Project		2		BI 450	Seminar	1
	TOTAL		15		TOTAL		14

B. S. Degree in Biology: Health Science Major (120 Credit Hours)

The Health Science concentration is a B.S. degree curriculum in Biology which prepares students for careers in health-related fields through a broad understanding of human development and factors which influence human health. This option prepares students for graduate studies in fields, such as nutrition, public health, health service, planning and administration, public health and other areas related to health science. After successful completion of the curriculum and passing a Departmental Comprehensive (exit) Examination, a student will receive a B.S. Degree in Biology with a concentration in Health Science.

Freshman Year (30)							
First Semester	Class		Hrs.		Second Semester	Class	Hrs.
BI 125	General Biology I		3		BI 126	General Biology II	3
BI 191	or Honors Biology I				BI 192	or Honors Biology II	
BI 125L	General Biology I Lab		1		BI 126L	General Biology II Lab	1
BI 191L	or Honors Biology I Lab				BI 192L	or Honors Biology II Lab	
CH 121	General Chemistry I		3		CH 122	General Chemistry II	3
CH 121L	General Chemistry I Lab		1		CH 122L	General Chemistry Lab	1
EN 111	Composition I		3		EN 112	Composition II	3
MA121	College Algebra		3		MA 132	Trigonometry	3
UL 101	University Life		1		ND 101	Health & Wellness	1
	TOTAL		15		TOTAL		15
Sophomore Year (30)							
MU 213	Music Appreciation		3		PH 320	Developmental Psychology	3
AR 214	or Art Appreciation						

ND 225	Intro. To Nutrition		3		BI 308	Introduction to Health Science		3
SY 235 PH 132	General Sociology or General Psychology		3		SA 223	Oral Communication		3
EN 213	Studies in Literature		3		HI 111 EC 201	World Civilization I or Principles of Economics I		3
PE 245	First Aid & Safety		<u>3</u>		PE 122	Health		<u>3</u>
	TOTAL		15			TOTAL		15
Junior Year (32)								
CH 315	Survey of Organic Chemistry		3		BI 300	Biological Chemistry		3
CH 315L	Survey of Organic Chemistry Lab		1		BI 336	Human Anatomy & Physiology II		3
BI 325	General Microbiology		3		BI 336L	Human Anatomy & Physiology II Lab		1
BI 325L	General Microbiology Lab		1		BI 320	Medical Terminology		3
BI 335	Human Anatomy & Physiology I		3		BI 328	Conceptual Analysis and Critical Thinking I		3
BI 335L	Human Anatomy & Physiology I Lab		1		BI 326	Pharmacology		<u>3</u>
BI 355	General Parasitology		3					
BI 355L	General Parasitology Lab		<u>1</u>					
	TOTAL		16			TOTAL		16
Senior Year (28)								
BI 361	Cell & Molecular Biology I		3		BI 420	Medical Microbiology		3
BI 361L	Cell & Molecular Biology I Lab		1		BI 425L	Medical Microbiology Lab		1
BI 445	Genetics		3		BI 400	Evolution		3
BI 445L	Genetics Lab		1		BI 402	Bioethics		3
BI 425	Immunology		3		BI 300-400	Biology elective (unrestricted)		<u>3</u>
BI 425L	Immunology Lab		1					
BI 423	Biostatistics		<u>3</u>					
	TOTAL		15			TOTAL		13

*Suggested Biology Electives: BI-400 Evolution, BI-402 Ethics, BI-311 Survey of Biology, BI 481 Introduction to Toxicology, BI 326 Pharmacology or other courses by the permission of the Curriculum Advisor.

B.S. in Biology Degree: Pre-Professional Concentration (120 Credit Hours)

This curriculum is designed for students who are interested in seeking admission to Medical School, School of Dentistry, School of Pharmacy, or School of Veterinary Medicine. Upon the completion of this curriculum, the students will be required to make a favorable score on the MCAT /DAT and/or other professional admission tests. The Office of Honors and Pre-Professional Programs along with the departmental advisors provide the students with academic training materials and activities to help prepare them for the examinations.

The students must maintain a Cumulative Grade Point Average of 3.0 or better. A student interested in entering a professional program, must actively participate in all academic activities at Alcorn State University in support of the curriculum. Students are encouraged to consult regularly with the faculty advisors.

Freshman Year (33)						
First Semester	Class		Hr s.	Second Semester	Class	Hrs.
CH 121	General Chemistry I		3	CH 122	General Chemistry II	3
CH 121L	General Chemistry I Lab		1	CH 122L	General Chemistry II Lab	1
BI 125 BI 191	General Biology I or Honors Biology		3	BI 126 BI 192	General Biology II or Honors Biology II	3
BI 125L BI 191	General Biology I Lab or Honors Biology I		1	BI 126L BI 192	General Biology II Lab or Honors Biology II	1
EN 111	Composition I		3	EN 112	Composition II	3
MA 135	Pre-Calculus		4	MA 181	Calculus I w/Ana. Geom.	4
UL 101	University Life		<u>1</u>	ND 101	Health and Wellness	<u>1</u>
	TOTAL		16		TOTAL	17
Sophomore Year (35)						
HI 111 SY 235	World Civilization I or General Sociology		3	MU 213 AR 214	Music Appreciation or Art Appreciation	3
CH 221L	Organic Chemistry I		3	CH 222	Organic Chemistry II	3
CH 221	Organic Chemistry I Lab		1	CH 222L	Organic Chemistry II Lab	1
SA 223	Oral Communication		3	EN 213	Studies in Literature	3
PY 215	General Physics I (Non-Calculus)		3	PH 132	General Psychology	3
PY 215L	General Physics I (Non- Calculus) Lab		1	PY 216	General Physics II (Non- Calculus)	3
BI 215	Comparative Anatomy		3	PY 216L	General Physics II (Non- Calculus) Lab	<u>1</u>
BI 215L	Comparative Anatomy Lab		<u>1</u>			
	TOTAL		18		TOTAL	17
Junior Year (28)						
BI 335	Human Anatomy & Physiology I		3	BI 336	Human Anatomy & Physiology II	3
BI 335L	Human Anatomy & Physiology I Lab		1	BI 336L	Human Anatomy & Physiology II Lab	1
BI 361	Cell & Molecular Biology I		3	BI 328	Conceptual Analysis and Critical Thinking I	3
BI 361L	Cell & Molecular Biology I Lab		1	BI 300-400	Biology elective (unrestricted)	3
CH 331	Biochemistry I		3	BI 300-400	Biology elective (unrestricted)	<u>3</u>
CH 331L	Biochemistry I Lab		1			
BI 325	General Microbiology		3			
BI 325L	General Microbiology Lab		<u>1</u>			
	TOTAL		15		TOTAL	13
Senior Year (24)						
BI 425	Prin. of Immunology		3	BI 420	Medical Microbiology	3
BI 425L	Prin. of Immunology Lab		1	BI 420L	Medical Microbiology Lab	1

BI 423	Introduction to Biostatistics		3	BI 446	Histology		3
BI 449	Senior Seminar		1	BI 446L	Histology Lab		1
BI 445	Genetics		3	BI 482	Applied Physiology		3
BI 445L	Genetics Lab		<u>1</u>	BI 482L	Applied Physiology Lab		<u>1</u>
	TOTAL		12		TOTAL		12

B.S. in Biology Degree: Pre-Physical Therapy Concentration (120 Credit Hours)

The curriculum is designed for students interested in a professional career in physical therapy. Physical therapy schools differ significantly in their pre-professional requirements. Therefore, students should consult with an advisor, explore physical therapy programs of interest, and coordinate their specific pre-professional curriculum in line with these schools.

The Physical Therapy curriculum is a generalized curriculum designed to prepare students for the highly competitive nature of admittance into a Doctor of Physical Therapy Program. Course substitutions should be handled carefully and approved only by a curriculum advisor. This curriculum consists of the most commonly required physical therapy prerequisites. The curriculum leads to a Bachelor of Science Degree in Biology.

Freshman Year (30)							
First Semester	Class		Hrs.	Second Semester	Class		Hrs.
CH 121	General Chemistry I		3	CH 122	General Chemistry II		3
CH 121L	General Chemistry I Lab		1	CH 122L	General Chemistry Lab		1
BI 125 or BI 191	General Biology I or Honors Biology I		3	BI 126 or BI192	General Biology II or Honors Biology II		3
BI 125L or BI 191 L	General Biology I Lab or Honors Biology I Lab		1	BI 126L or BI 192L	General Biology II Lab or Honors Biology II Lab		1
EN 111	Composition I		3	EN 112	Composition II		3
MA121	College Algebra		3	MA 132	Trigonometry		3
UL 101	University Life		<u>1</u>	ND 101	Health and Wellness		<u>1</u>
	TOTAL		15		TOTAL		15
Sophomore Year (32)							
SP 111	Spanish I		3	SP 112	Spanish II		3
SA 223	Oral Communication		3	EN 213	Studies in Literature		3
PY 215	General Physics I (Non-Calculus)		3	PY 216	General Physics II (Non-Calculus)		3
PY 215L	General Physics I (Non- Calculus) Lab		1	PY 216L	General Physics II (Non- Calculus) Lab		1
EC 201	Principles of Economics I		3	MA 377	Statistics I		3
PH 132	General Psychology		<u>3</u>	AR 214 or MU 213	Art Appreciation or Music Appreciation		<u>3</u>
	TOTAL		16		TOTAL		16
Junior Year (32)							
BI 335	Human Anatomy & Physiology I		3	BI 336	Human Anatomy & Physiology II		3
BI 335L	Human Anatomy & Physiology I Lab		1	BI 336 L	Human Anatomy & Physiology II Lab		1
BI 325	General Microbiology		3	PH 320	Developmental Psychology		3

BI 325L	General Microbiology Lab		1		BI 336L	Human Anatomy & Physiology II Lab		1
BI 215	Comparative Anatomy		3		BI 328	Conceptual Analysis and Critical Thinking		3
BI 215L	Comparative Anatomy Lab		1		BI 320	Medical Terminology		3
HI 111	World Civilization I		<u>3</u>		BI 326	Pharmacology		<u>3</u>
	TOTAL		15			TOTAL		17
Senior Year (26)								
BI 445	Genetics		3		BI 420	Medical Microbiology		3
BI 445L	Genetics Lab		1		BI 420L	Medical Microbiology Lab		1
BI 300-400	Biology elective (unrestricted)		3		BI 468	Kinesiology		3
BI 300-400 L	Biology elective Lab (unrestricted)		1		BI 468L	Kinesiology Lab		1
PE 435	Physiology of Exercise		3		BI 482	Applied Physiology		3
BI 400	Elective		<u>3</u>		BI 482L	Applied Physiology Lab		<u>1</u>
	TOTAL		14			TOTAL		12

***Suggested Biology Electives: BI 400, BI 402, other courses may be substituted at the advisement and with approval of the Academic Advisor or Chairperson. Courses related to Motor Skills Development (PE 328), Kinesiology (PE 468) etc., are strongly recommended.**

Pre-Nursing

This lower level pre-professional nursing curriculum is designed to focus on courses in the liberal arts, physical, biological, social, and behavioral sciences. The curriculum meets the general education core requirements for eligibility to apply for admission to Alcorn's Bachelor of Science in Nursing (BSN) Program. Please note, this curriculum satisfies the general education core requirements for Alcorn State University. Admission to institutions other than Alcorn State University may require additional general education coursework.

Minimum eligibility requirements to qualify for admission to Alcorn State University's BSN Program are: a grade of "C" in all courses, a grade point average of 2.5, and a composite ACT score of 21. **Completing general education course work at Alcorn State University and meeting minimum admission criteria does not guarantee admission to the BSN Program.**

Pre-Nursing Curriculum (61 Credit Hours)

Freshman Year (30)								
First Semester	Class		Hrs.		Second Semester	Class		Hrs.
BI 335	Human Anatomy & Physiology I		3		EN 112	Composition II		3
BI 335L	Human Anatomy & Physiology I Lab		1		ND 225	Intro. to Nutrition		3
EN 111	Composition I		3		BI 336	Human Anatomy & Physiology II		3
MA 121	College Algebra		3		BI 336L	Human Anatomy & Physiology II Lab		1
PH 132	General Psychology		3		SA 223	Oral Communication		3
UL 101	University Life		1					
*	Elective		<u>3</u>					
	TOTAL		17			TOTAL		13

***Elective/Added Coursework: CH 121 and 122 with labs, BI 125 and 126 with labs.**

Sophomore Year (31)							
PH 320	Developmental Psychology		3		HI 225	United States History	3
EN 213	Studies in Literature		3		SS 307	Statistical Methods	3
SY 235	General Sociology		3		SS 397	Ethics	3
BI 300-400	Biology Elective		3		SY 408	The Family Creative Arts/Humanities	3
BI 325	Gen. Microbiology		3		Electives	(AR 214, SA 245, HU 201, MU 213)	3
BI 325L	Gen. Microbiology Lab		1				
	TOTAL		16			TOTAL	15

**** Suggested Biology Electives: BI 355 General Parasitology, BI 400 Evolution, BI 328 Conceptual Analysis and Critical Thinking, BI 481 Toxicology, BI 326 Pharmacology or other courses with the approval of the curriculum advisor.**

DEPARTMENT OF CHEMISTRY AND PHYSICS

Yolanda K. Jones, Ph.D., Interim Chair

Math and Science Bldg. #215

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The Department of Chemistry and Physics provides for all students the basic knowledge of the physical sciences necessary for an understanding of today's scientific and technological society. The Chemistry Department offers a Bachelor of Science Degree in Chemistry with concentrations in:

1. **Chemistry** for students planning to pursue advanced study in chemistry;
2. **Biochemistry** for students planning to enter medical, dental or other schools related directly or indirectly to medicine and dentistry;
3. **Chemical Physics** for those students who desire a more integrated course of study between chemistry, physics, and mathematics.

Each curriculum consists of (a) core courses to assure a basic liberal arts foundation, (b) courses required for competences and depth in a chosen major, and (c) electives to allow for specific variations in career goals, and personal development. It is strongly suggested that a student follow the proper sequence of courses as listed in the chosen concentration. All majors are required to take and pass an exit exam that is a combination of the major areas of chemistry (general chemistry, organic chemistry, analytical chemistry, and physical chemistry).

Chemical Physics (120 Credit Hours)

Chemical Physics is an interdisciplinary course of study for those students who wish to interface physics with chemistry. In addition, many students who plan careers in the nuclear industry or areas relating to chemical engineering or physics will find this interdisciplinary curriculum appropriate.

Freshman Year (34)							
First Semester	Class		Hrs.		Second Semester	Class	Hrs.
CH 123	General Chemistry		3		CH 124	General Chemistry	3
CH 123L	General Chemistry Lab		1		CH 124L	General Chemistry Lab	1
EN 111	Composition I		3		EN 112	Composition II	3
MA 181	Calculus w/Ana. Geom.		4		MA 182	Calculus II w/Ana. Geom.	4
CS 100	Intro. to Computers		1		SS 111	Social Institutions	3
HI 111	World Civilization		3		ND 101	Health and Wellness	1
UL 101	University Life		1		_____	Fine Arts Elective	3
	TOTAL		16			TOTAL	18
Sophomore Year (32)							
PY 217	General Physics (Calculus)		3		PY 218	General Physics (Calculus)	3
PY 217L	General Physics (Calculus) Lab		1		PY 218L	General Physics Lab (Calculus)	1
EN 213	Studies in Literature		3		MA 348	Differential Equations	3
MA 283	Calculus III		3		CH 405	Chemical Literature	1
CS 202	Programming in C++ I		3		CH 222	Organic Chemistry II	3
CH 221	Organic Chemistry I		3		CH 221L	Organic Chemistry II Lab	1
CH 221L	Organic Chemistry I Lab		1		HU 201	Humanities	3
	TOTAL		17			TOTAL	15

Junior Year (27)							
CH 323	Physical Chemistry I		3		CH 322	Instrumental Methods	3
CH 323L	Physical Chemistry II Lab		1		CH 322L	Instrumental Methods Lab	1
CH 321	Quantitative Analysis		3		CH 324	Physical Chemistry I	3
CH 321L	Quantitative Analysis Lab		1		CH 324L	Physical Chemistry II Lab	1
CH 398	Ungrad. Lab Instruction I		1		SA 223	Oral Communication	3
MA 225	Cal I with Analytical Geom.		4		_____	Elective (MA or CS)	3
	TOTAL		13		TOTAL		14
Senior Year (27)							
CH 403	Seminar		1		CH 404	Seminar	1
CH 423	Chemical Research or Independent Study		3		CH 480	Spectroscopy	3
_____	Chemistry Elective		3		CH 421	Inorganic Chemistry	2
CH 410	Organic Qualitative Analysis		3		EN 351	Technical Writing	3
_____	Elective (MA or CS)		3		CH 420L	Inorganic Chemistry Lab	2
					_____	Elective (MA or CS)	3
	TOTAL		13		TOTAL		14

*Students not prepared for Calculus must take the necessary Pre-requisite courses in mathematics in addition to those prescribed in the curriculum. Students must earn a "C" or better in all math and science courses.

Senior Exit Exam Pass _____ Fail _____

Chemistry (120 Credit Hours)

Students who receive a degree in Chemistry (for advanced study) will be prepared to enter the workforce or continue their studies in chemistry or a related field. A degree from this program will allow you to become a research scientist or college professor.

Freshman Year (32)							
First Semester	Class		Hrs.		Second Semester	Class	Hrs.
CH 123	General Chemistry		3		CH 124	General Chemistry	3
CH 123L	General Chemistry Lab		1		CH 124L	General Chemistry Lab	1
EN 111	Composition I		3		EN 112	Composition II	3
MA 181	Calculus w/Ana. Geom.		4		MA 182	Calculus II w/Ana. Geom.	4
HI 111	World Civilization I		3		SS 111	Social Institutions	3
UL 101	University Life		1		_____	Fine Arts Elective	3
	TOTAL		15		TOTAL		17
Sophomore Year (31)							
PY 217	General Physics (Calculus)		3		PY 218	General Physics (Calculus)	3
PY 217L	General Physics Lab (Calculus)		1		PY 218L	General Physics Lab (Calculus)	1
EN 213	Studies in Literature		3		CH 405	Chemical Literature	1
CH 221	Organic Chemistry I		3		HU 201	Humanities	3

CH 221L	Organic Chemistry I Lab		1		MA 348	Differential Equations		3
MA 283	Calculus III		3		CH 222	Organic Chemistry II		3
CS 100	Intro. to Computers		<u>1</u>		CH 221L	Organic Chemistry II Lab		1
					ND 101	Health and Wellness		<u>1</u>
	TOTAL		15			TOTAL		16

Junior Year (32)

CH 323	Physical Chemistry I		3		CH 322	Instrumental Methods		3
CH 323L	Physical Chemistry I Lab		1		CH 322L	Instrumental Methods Lab		1
CH 321	Quantitative Analysis		3		CH 324	Physical Chemistry II		3
CH 321L	Quantitative Analysis Lab		1		CH 324L	Physical Chemistry II Lab		1
_____	*Elective (Chem or Phy.)		3		MA 346	Linear Algebra		3
_____	Elective (SP or CS)		3		SA 223	Oral Communication		3
CH 398	Ungrad. Lab Instruction I		<u>1</u>		CS 202	Programming in C++1		<u>3</u>
	TOTAL		15			TOTAL		17

Senior Year (25)

EN 351	Technical Writing		3		CH 404	Seminar		1
CH 480	Spectroscopy		3		CH 421	Inorganic Chemistry		2
CH 410	Organic Qualitative Analysis		3		CH 420L	Inorganic Chemistry Lab		2
CH 403	Seminar		1		PY 325	Modern Physics		3
CH 423	Chemical Research/Independent Study		<u>3</u>		CH 399	Undergrad Lab Instruction II		1
					CH 424	Chemical Research/Independent Study		<u>3</u>
	TOTAL		13			TOTAL		12

*It is required that portion of electives be devoted to a non-structured course such as chemical research. Students must earn a "C" or better in all math and science courses.

Senior Exit Exam Pass _____ Fail _____

Biochemistry: Pre-Medicine, Pre-Dentistry and Pre-Optometry, Pre-Pharmacy (120 Credit Hours)

Students who aspire to become a medical doctor, dentist, pharmacist, or optometrist should choose the biochemistry concentration in preparation for professional school. Students interested in pursuing an advanced degree in the biomedical field may also choose this concentration.

Freshman Year (32)								
First Semester	Class		Hrs.		Second Semester	Class		Hrs.
CH 123	General Chemistry		3		CH 124	General Chemistry		3
CH 123L	General Chemistry Lab		1		CH 124L	General Chemistry Lab		1
EN 111	Composition I		3		EN 112	Composition II		3
MA 181	Calculus w/Ana. Geom.		4		MA 182	Calculus II w/Ana. Geom.		4
BI 125	General Biology I		3		ND 101	Health and Wellness		1
BI 125L	General Biology I Lab		1		BI 126	General Biology II		3

UL 101	University Life		<u>1</u>		BI 126L	General Biology II Lab		<u>1</u>
	TOTAL		16			TOTAL		16
Sophomore Year (30)								
PY 217	General Physics (Calculus)		3		PY 218	General Physics		3
PY 217L	General Physics (Calculus) Lab		1		PY 218L	General Physics Lab		1
EN 213	Studies in Literature		3		SA 223	Oral Communication		3
CH 221	Organic Chemistry I		3		CH 222	Organic Chemistry II		3
CH 221L	Organic Chemistry I Lab		1		CH 222L	Organic Chemistry II Lab		1
CS 100	Intro. to Computers		1		HU 201	Humanities		3
HI 111	World Civilization		<u>3</u>		CH 405	Chemical Literature		<u>1</u>
	TOTAL		15			TOTAL		15
Junior Year (32)								
CH 323	Physical Chemistry I		3		CH 322	Instrumental Methods		3
CH 323L	Physical Chemistry II Lab		1		CH 322L	Instrumental Methods Lab		1
CH 321	Quantitative Analysis		3		CH 324	Physical Chemistry II		3
CH 321L	Quantitative Analysis Lab		1		CH 324L	Physical Chemistry II Lab		1
BI 325	General Microbiology		3		CH 403	Seminar		1
BI 325L	General Microbiology Lab		1		CH 332	Biochemistry II		3
CH 331	Biochemistry I		3		CH 332L	Biochemistry II Lab		1
CH 331L	Biochemistry Lab II		<u>1</u>		PH 132	General Psychology		<u>3</u>
	TOTAL		16			TOTAL		16
Senior Year (26)								
_____	*Elective (Chemistry)		3		CH 399	Undergrad Lab Instr. II		1
BI 445	Genetics		3		PE 101	Physical Education		1
BI 445L	Genetics Lab		1		CH 404	Seminar		1
BI 327	Cell Biology		3		PY 325	Modern Physics		3
BI 327L	Cell Biology Lab		1		_____	*Elective (BI)		3
CH 423	Chemical Research		<u>3</u>		_____	*Elective (BI)		<u>3</u>
	TOTAL		14			TOTAL		12

* It is required that a portion of electives be devoted to a non-structured course such as chemical research. Students must earn a “C” or better in all math and science courses.

Senior Exit Exam Pass _____ Fail _____

DEPARTMENT OF ENGLISH, LANGUAGES, AND MASS COMMUNICATION

Anne-Marie Obilade, Ph.D., Interim Chair

Lanier Hall, 145

Telephone: (601) 877-6401

MISSION OF ENGLISH DEGREE

Our mission is to teach students to appreciate, understand, and interpret the human experience as it is expressed through the written and spoken word. To achieve these ends, the curricula provide opportunities for the student (1) to gain mastery of language, especially the forms of Standard American English, (2) to develop skills and techniques of effective writing, (3) to cultivate an appreciation for literature from a variety of cultures, (4) to cultivate skills in interpreting literature, (5) to develop and broaden problem-solving and analytical skills, and (6) to develop intellectual curiosity.

These skills—analytical reading, effective writing, and critical thinking—are invaluable in any professional field. Therefore, our curricula prepare our majors to enter the workforce in a variety of occupations, including teaching, writing and editing, business and sales, public relations, and government service with local, state, and federal agencies, as well as to enter graduate or professional programs in such fields as literature, linguistics, communications, law, library science, and business administration. For further details on these professional options, contact the department, 133 Lanier Hall, (601) 877-6400, or email the chair at cscurria@alcorn.edu.

We offer a foreign language to serve students who wish to fulfill the language requirements of their major fields or broaden their cultural background. We also offer honors courses in composition and literature to stimulate the intellectual and personal growth of students with outstanding ability in English.

MAJORS IN ENGLISH

Students majoring in English may select either a major in literature, which is designed for those interested in graduate school, professional writing, and college teaching; or a major in teaching, which is designed for those interested in secondary school teaching. In addition to the required courses in these two majors, we offer a broad range of language and literature electives designed to enhance the general education of all students, regardless of major.

CONCENTRATIONS IN ENGLISH

Students majoring in Elementary Education can choose a concentration in Language Arts by taking selected English courses. Students majoring in English Literature can choose a concentration in Professional Writing. In addition, the English Literature major includes 15 hours of upper-level English electives. In consultation with the chair, students may substitute upper-level courses in other disciplines when such courses are relevant to a student's career or educational goals.

We also offer an endorsement in English for the Master of Science in Education degree in Secondary Education. For course requirements, see the *Graduate Studies Catalog*.

LITERATURE CURRICULUM

The 120-hour literature curriculum consists of thirty-three hours of general education courses including EN 111, EN 112, and EN 213; twelve hours of a foreign language; nine hours of free electives; fifty-one hours of required upper-level English courses, and fifteen hours of upper-level English electives. Students choosing the Professional Writing concentration should take twelve hours of their English electives in writing courses designated by the chair.

The following courses comprise the fifty-one hours of required upper-level English courses:

	Class	Hrs.
EN 303	Literary Theory and Criticism I	3 hrs.
EN 305	American Literature I	3 hrs.
EN 306	American Literature II	3 hrs.
EN 307	The British Novel	3 hrs.
EN 308	The American Novel	3 hrs.
EN 311	British Literature I	3 hrs.
EN 312	British Literature II	3 hrs.
EN 315	Introduction to Linguistics	3 hrs.
EN 316	Advanced Composition	3 hrs.
EN 317 or 318	Global Literature I or II	3 hrs.
EN 352	Research Writing	3 hrs.
EN 403	Literary Theory and Criticism II	3 hrs.
EN 480	Senior Seminar	3 hrs.
	Early Period Courses (consult with chair)	6 hrs.
	Late Period Courses (consult with chair)	6 hrs.

To be eligible for graduation, all students must earn a C or above in each upper-level English course. In addition, all students must pass a Senior Exit Examination administered by English faculty.

B.A. in English, Literature Major Curriculum Guide (120 Credit Hours)

The following course sequence is strongly recommended. Students should be aware that not every course below can be offered every academic year. It is therefore essential that students remain in contact with their department chair.

Freshman Year (30)							
First Semester	Class	Hrs.		Second Semester	Class	Hrs.	
EN 111	Composition I	3		EN 112	Composition II	3	
SP 111	Spanish I	3		SP 112	Spanish II	3	
HI 111	World Civilization I*	3		HI 112	World Civilization II*	3	
MA 121	College Algebra	3		PY 111	Physical Science I	3	
BI 111	Intro. to Biology	3		PE 100	Physical Education I or Foundations of Leadership	1	
UL 101	University Life	<u>1</u>		ND 101	Health and Wellness	<u>1</u>	
	TOTAL	16			TOTAL	14	
Sophomore Year (30)							
EN 213	Studies in Literature	3		EN 214	Special Topics in Lit**	3	
HU 201	Humanities**	3		EN 316	Advanced Composition	3	

EN 315	Introduction to Linguistics	3		_____	Elective	3
_____	Elective	3		_____	Elective	3
SP 213	Spanish III***	3		SP 214	Spanish IV***	3
	TOTAL	15			TOTAL	15
Junior Year (30)						
EN 305	American Literature I	3		EN 306	American Literature II	3
EN 311	British Literature I	3		EN 312	British Literature II	3
_____	Early Period Course	3		EN_____	Late Period Course	3
EN 307	The British Novel	3		EN 308	The American Novel	3
_____	English Elective****	3		EN 352	Research Writing	3
	TOTAL	15			TOTAL	15
Senior Year (30)						
EN_____	Early Period Course	3		EN_____	Late Period Course	3
EN 303	Literary Theory and Criticism I	3		EN 403	Literary Theory and Criticism II	3
EN _____	Global Lit I or II	3		EN 480	Senior Seminar	3
_____	English Elective****	3		_____	English Elective****	3
_____	English Elective****	3		_____	English Elective****	3
	TOTAL	15			TOTAL	15

- * Or other approved Social Science course
- ** Or other approved Creative Arts course
- *** Or restricted elective at discretion of department chair
- **** At the discretion of the department chair, English electives may be substituted for other courses relevant to student's career plans.

EDUCATION CURRICULUM

The 120-hour education curriculum consists of thirty-six hours of general education courses including EN 111, EN 112, and EN 213; nine hours of upper-level Psychology courses; twelve hours of upper-level Education courses; fifty-one hours of required upper-level English courses, and twelve hours of Directed Teaching.

The following courses comprise the fifty-one hours of required upper-level English courses:

	Class	Hrs.
EN 303	Literary Theory and Criticism I	3 hrs.
EN 305	American Literature I	3 hrs.
EN 306	American Literature II	3 hrs.
EN 307	The British Novel	3 hrs.
EN 308	The American Novel	3 hrs.
EN 311	British Literature I	3 hrs.
EN 312	British Literature II	3 hrs.
EN 315	Introduction to Linguistics	3 hrs.
EN 316	Advanced Composition	3 hrs.
EN 317 or 318	Global Literature I or II	
EN 391	Best Practices in Teaching English I	

EN 403	Literary Theory and Criticism II	3 hrs.
EN 406	Adolescent Literature	3 hrs.
EN 480	Senior Seminar	3 hrs.
EN 485	Best Practices in Teaching English II	3 hrs.
	Early Period Courses (consult with chair)	3 hrs.
	Late Period Courses (consult with chair)	3 hrs.

To enter the English Education program, students must take and pass PRAXIS Core Academic Skills for Educators and apply for admission to the teacher education program. Additionally, the student must complete 44 semester hours of coursework with a cumulative GPA of 2.75 on a 4.0 system. Only after entrance into the teacher education program, students are allowed to enroll in the following restricted courses: ED 302, ED 348, ED 351, and EN 485. Only after passing Praxis II, Principles of Learning and Teaching (Test Code 5624) and English Language, Literature, Composition and Content Knowledge (Test Code 5038), may students enroll in ED 468, Directed Teaching.

To be eligible for graduation, all students must earn a C or above in each upper-level English course. In addition, all students must successfully complete eight assessments as mandated by accreditation bodies. To complete these assessments, students should get in contact with the department chair when they enroll in their first upper-level English course.

Language Arts Concentration for Elementary Education Majors

Students majoring in Elementary Education can choose Language Arts as an area of concentration. This concentration is made up of 18 hours of upper-level English courses. These 18 hours are as follows:

- EN 315 Introduction to Linguistics
- EN 316 Advanced Composition
- EN 406 Adolescent Literature
- EN 305 or 306 American Literature I or II
- EN 311 or 312 English Literature I or II
- EN _____ Upper-level English course

B.A. in English, Secondary Education Major Curriculum Guide (120 Credit Hours)

The following course sequence is strongly recommended. Students should be aware that not every course below can be offered every academic year. It is therefore essential that students remain in contact with their department chair.

Freshman Year (30)							
First Semester	Class	Hrs.		Second Semester	Class	Hrs.	
EN 111	Composition I	3		EN 112	Composition II	3	
PH 132	General Psychology**	3		PY 111	Physical Science I	3	
BI 111	Intro. to Biology	3		ED 200	Social Studies/Multicultural Ed.**	3	
MA 121	College Algebra	3		SA 223	Oral Communication	3	
PE 100 MS 101	Physical Education I or Intro. to the Army	1		PE 122	Health	3	
CS 100	Intro. to Computers	1					
UL 101	University Life	1					
	TOTAL	15			TOTAL	15	

Sophomore Year (30)							
EN 213	Studies in Literature		3		EN 214	Special Topics in Lit***	3
PH 347	Measurement & Evaluation		3		EN 316	Advanced Composition	3
EN 315	Introduction to Linguistics		3		EN 406	Adolescent Literature	3
EN ____	Global Literature I or II		3		ED 348	Foundations of Education	3
EN 391	Best Practices in EN I		<u>3</u>		PH 326	Psychology of the Excep. Child	<u>3</u>
	TOTAL		15		TOTAL		15
Junior Year (33)							
EN 305	American Literature I		3		EN 306	American Literature II	3
EN 311	British Literature I		3		EN 312	British Literature II	3
EN 303	Literary Theory and Criticism I		3		EN 403	Literary Theory and Criticism II	3
EN 307	The British Novel		3		EN 308	The American Novel	3
EN ____	Early Period Course		3		EN 480	Senior Seminar	<u>3</u>
ED 351	Managing Classroom Behavior*		<u>3</u>				
	TOTAL		18		TOTAL		15
Senior Year (27)							
ED 498	Reading in the Secondary School*		3		ED 468	Directed Teaching*	<u>12</u>
EN ____	Late Period Course		3				
ED 302	Teaching Practicum/Tech *		3				
PH 336	Educational Psychology		3				
EN 485	Best Practices in Teaching English II *		<u>3</u>				
	TOTAL		15		TOTAL		12

- * **Restricted Course in School of Education**
- ** **Required Social Science courses in Education**
- *** **Or other approved Creative Arts course**

MISSION OF MASS COMMUNICATION DEGREE

The mission of the Mass Communication degree is 1) to prepare students to become successful media practitioners; 2) to foster students' critical thinking skills, especially regarding Mass Communication issues on local, regional, and national levels; 3) to prepare students for entrance into professional or graduate school; and 4) to teach students the skills necessary to operate across a wide variety of media platforms using state-of-the-art technologies.

In addition, students majoring in Mass Communication will experience

1. print media by writing, editing, and publishing a bi-monthly student run online newspaper, *The Campus Chronicle*;
2. television broadcast media by participating in a regular television newscast as producers, assignment reporters, videographers, and anchors;
3. radio broadcast media by participating in a regular one-hour radio show where vocal delivery skills can be developed and enhanced.

Students will obtain these real-world hands-on professional experiences via our professionally managed 3,000 watt FM broadcast radio station, WPRL 91.7 FM, and our University wide cable television center, ASU TV-13. These broadcast media are operated by professional staff personnel.

MASS COMMUNICATION CURRICULUM

The 120-hour Mass Communication curriculum consists of thirty-six hours of general education courses including CO 100, CO 103, and SA 223; six hours of a foreign language; six hours of free electives; six hours of upper-level free electives; fifty-seven hours of required upper-level Mass Communication courses, and nine hours of upper-level Mass Communication electives.

The following courses comprise the fifty-seven hours of required upper-level Mass Communication courses:

	Class	Hrs.
CO 203	Mass Media Writing	3 hrs.
CO 218	Broadcast Announcing	3 hrs.
CO 231	Broadcast News Writing and Reporting	3 hrs.
CO 241	Public Relations Principles and Practices	3 hrs.
CO 252	Basic Copy Editing	3 hrs.
CO 257	Current Issues in Journalism	3 hrs.
CO 312	Alternative Media in a Diverse Society	3 hrs.
CO 333	Mass Communication Law and Ethics	3 hrs.
CO 338	Basic Video Editing Techniques	3 hrs.
CO 348	Television Production	3 hrs.
CO 351	Feature Writing	3 hrs.
CO 354	Investigative Reporting	3 hrs.
CO 358	Advanced Television Production	3 hrs.
CO 368	Radio Production Lab	3 hrs.
CO 370	Publication Design	3 hrs.
CO 410	Workshop in Mass Communication	3 hrs.
CO 417	Introduction to Mass Comm Research Methods	3 hrs.
CO 470	Multimedia Reporting	3 hrs.
CO 495	Internship in Mass Communication	3 hrs.

To be eligible for graduation, all students must earn a C or above in each upper-level Mass Communication course. In addition, all students must pass a Senior Exit Examination administered by Mass Communication faculty.

B.A. Curriculum in Mass Communication Curriculum Guide (120 Credit Hours)

The following course sequence is strongly recommended, in particular because many courses serve as **prerequisites** for later courses. Students should be aware that not every course below can be offered every academic year. It is therefore essential that students remain in contact with their departmental advisors and chair.

Freshman Year (30)							
First Semester	Class	Hrs.		Second Semester	Class	Hrs.	
EN 111	Composition I	3		EN 112	Composition II	3	
HI 225	United States History I*	3		HI 226	United States History II*	3	
BI 111	Intro. to Biology	3		PY 111	Physical Science I	3	

MA 121	College Algebra		3		CO 100	Introduction to Mass Communication		3
ND 101	Health and Wellness		1		CO 103	Introduction to Social Media		<u>3</u>
CS 100	Intro. to Computers		1					
UL 101	University Life		<u>1</u>					
	TOTAL		15			TOTAL		15
Sophomore Year (30)								
EN 213	Studies in Literature		3		CO 231	Broadcast News Writing Reporting		3
SP 111	Spanish I		3		SP 112	Spanish II		3
CO 203	Mass Media Writing		3		CO 312	Alternative Media in a Diverse Society		3
SA 223	Oral Communication		3		CO 218	Broadcast Announcing		3
_____	Elective		<u>3</u>		_____	Elective		<u>3</u>
	TOTAL		15			TOTAL		15
Junior Year (30)								
CO 252	Basic Copy Editing		3		CO 241	Public Relations Principles		3
CO 333	Mass Comm Law Ethics		3		CO 257	Current Issues in Journalism		3
CO 338	Basic Video Editing Tech		3		CO 348	Television Production		3
_____	Mass Communication Elective		3		CO 351	Feature Writing		3
_____	Upper-level Elective		<u>3</u>		CO 368	Radio Production Lab		<u>3</u>
	TOTAL		15			TOTAL		15
Senior Year (30)								
CO 358	Advanced TV Production		3		CO 417	Intro. Mass Comm. Research Methods		3
CO 370	Publications Design		3		CO 470	Multimedia Reporting		3
CO 410	Workshop in Mass Comm		3		CO 495	Internship in Mass Comm		3
CO 354	Investigative Reporting		3		_____	Mass Comm Elective		3
_____	Mass Comm. Elective		<u>3</u>		_____	Upper-level Elective		<u>3</u>
	TOTAL		15			TOTAL		15

* Or other approved Social Science course

DEPARTMENT OF FINE ARTS

Renardo Murray, Ph.D., Interim Chair

Associate Dean, School of Arts and Sciences

Fine Arts Bldg., #101

Telephone: (601) 877-6261

Fax: (601) 877-6262

The Department of Fine Arts has as its purpose the provision of curricular and cultural offerings which contribute to the student's acquisition of a broad base of knowledge and skill in the areas of art, humanities, music, and speech and theater. To this end, the department offers the Bachelor of Music degree with majors in Music Education and Music Performance, and the Bachelor of Arts in Music degree. In addition, the department provides service courses in the areas of Art, Humanities, and Speech and Theater. In the spirit of the University's emphasis on the "Communiversality" concept, the department's purpose in the area of service is to provide expertise in the arts, and offer opportunities to participate in cultural events for the University community, the communities in southwest Mississippi, and in other venues around the state, region, and nation.

ART

Service courses in the art area focus on the general education of all students with the goal of enhancing their understanding of mankind, increasing their vocabulary through writing and speaking about art, and introducing them to drawing and design as a means of communication.

HUMANITIES

Service courses in humanities are designed to explore the values and mores of humanity through the study of significant cultural development in art, literature, philosophy, music, and religion. Emphasis is placed on the interrelationships of these areas and on how they meld to form various movements and epochs.

SPEECH AND THEATER

Service courses in speech and theater are offered for students interested in speech and theater either as an enhancement of their academic program, or as a means of enriching their leisure time activity. The Oral Communication course is designed to help students improve their ability to express thoughts more clearly in front of audiences. Courses in theater are designed to provide students with both practical experience in the production of plays, and historical and critical insight into the theater as a medium of communication of ideas and emotion.

MUSIC CURRICULUM

The department offers the Bachelor of Music degree, with majors in Music Education and Music Performance and the Bachelor of Arts in Music degree. The Bachelor of Music curriculum is designed to provide the music major with basic skills, techniques, pedagogical concepts, and perspectives requisite to success in the field of music. Upon completion of the degree, graduates may engage in graduate study, perform as an artist, teach music on the elementary and secondary levels or pursue other interests related to music. A student handbook for music majors is available on the Department of Fine Arts website.

AUDITIONS

Every student enrolled as a full-time degree candidate must study a major instrument, e.g. piano, voice, trumpet, and saxophone and must audition on the chosen instrument. Students enrolled in music education who wish to change to the music performance major must audition prior to being admitted to the performance major program, and prior to the beginning of the junior year. Contact the Department of Fine Arts office to schedule auditions and for more information about audition guidelines.

ENTRANCE EXAMINATIONS

Entrance examinations are required for the purpose of placement in music theory and piano class. Entrance examinations are administered during freshman orientation in the fall and at the beginning of the spring semester. Preparation materials for the music theory test are available on the department web pages at: <http://musictheory.alcorn.edu/entrance.htm> and <http://musictheory.alcorn.edu>. Students should contact the department office for information concerning entrance examinations and scheduling.

PROFICIENCY EXAMINATIONS

Proficiency examinations on the applied instrument and in basic musicianship must be passed before advancing as a major. Advanced standing in music is contingent on satisfactory demonstrations of skills at the end of the sophomore year. Proficiency examinations are required of all transfer students, as well as currently enrolled Alcorn State University Music majors who take courses in music theory or music history at other institutions of higher learning. These students must demonstrate competency in each level of music theory or music history before continuing on to the next higher level. All music majors are required to pass the piano proficiency examination. This examination is normally scheduled at the conclusion of the sophomore year.

As a requirement for admission to the Teacher Education program, music education majors must successfully pass Praxis Core Academic Skills for Educators and complete admission requirements for the Teacher Education program. PRAXIS II Principles of Learning and Teaching and the PRAXIS II music content area test must be completed prior to admission to Directed Teaching.

JURIES AND RECITALS

All applied music students (except MU121/123) must take a jury examination at the end of each semester. The jury consists of a performance session before a faculty committee with a brief period of faculty inquiry. Students will be exempted from the jury examinations only when they have performed a senior recital meeting partial degree requirements during that semester. The performance jury is the equivalent of a final exam for the applied area of semester study. Juries are held during the week preceding final exams.

All music majors are required to register for and pass eight semesters of MU 052 (Recital). The recital hour is a forum for student performances and a time when the faculty and students can consider issues of academic and musical importance. Music students are not only interested in their own performance, but also recognize the value of listening to the performances of others and learning about the various performing media. Attendance at all student recitals is required and attendance at additional concerts, recitals, and special events sponsored by the Department of Fine Arts is expected. Music education majors are exempt from the recital attendance requirement during the semester in which they are enrolled in student teaching. Attendance records are kept and a grade is awarded for each recital class on a pass or fail basis.

Freshman music performance majors are required to perform on one recital during the first semester and twice during the second semester. Thereafter, all performance majors are required to appear twice each semester. Freshman music education majors are required to perform on one recital during the second semester. Thereafter, all music education majors are required to appear once during the fall semester and twice during the spring semester. Attendance at all student recitals is mandatory.

In addition to routine appearances on student recital programs, all music majors will present a full length recital during their senior year. Music performance majors must also present a half-hour recital during their junior year. These recitals are considered a partial fulfillment of the requirements for the graduation.

ENSEMBLES

Every full-time music major (12 credit hours or more) must perform in a major ensemble each semester. Students in the music education degree programs are exempt from ensemble participation during the semester in which they are enrolled in student teaching. Only one ensemble credit per semester counts toward the ensemble requirement.

The **Concert Band** is open to all students by audition and is offered during the spring semester.

The **Concert Choir** is open to all students by audition. This organization demands a high caliber of performance. Voice majors are required to sing in this organization. All styles of music will be performed.

The **Jazz Ensemble** is open to all students subject to the approval of the director. The ensemble provides performance experience in various jazz idioms.

The **Marching Band** is open to all University students and is offered during the fall semester. Placement is determined by audition results and needs of the ensemble.

The **Wind Ensemble** is open to all University students by audition and is offered during the spring semester. Placement is determined by audition results and needs of the ensemble.

In addition to the major ensembles listed above, **Chamber ensembles** are open to students on a selective basis. Participation in a chamber ensemble does not exempt a student from participation in a major ensemble.

ATTENDANCE

Classes

Students are expected to attend all classes, recitals, and laboratory sessions. In addition, students are expected to be prompt and on time for all classes and appointments. It is the responsibility of students to abide by attendance rules that instructors prescribe and should clear absences with individual instructors.

Applied Lessons

The ASU policy on class attendance applies to applied lessons as well. The highly specialized nature of individualized instruction and professional etiquette requires that the instructor be notified in advance of any absence. Make-up lessons are given at the discretion of the instructor and only for bona fide reasons, such as certifiable illness. Please check with the individual instructor regarding any additional stipulations. Applied lessons are offered in the following areas: piano, organ, voice, violin, viola, cello, string bass, guitar, flute, oboe clarinet, bassoon, saxophone, trumpet, French horn, trombone, euphonium, tuba, and percussion. The following sequence of applied courses are for Music Education Majors: MU 121, MU 122, MU 221, MU 222, MU 321, MU 322, and MU 421-Senior Recital. The following sequence of applied courses are for Music Performance Majors: MU 121, MU 122, MU 221, MU 222, MU 323, MU 324-Junior Recital, MU 423, and MU 424-Senior Recital.

Non music majors must receive permission of the instructor before enrolling in an applied course. Ensembles

As with lessons, the ASU policy on attendance applies to ensembles. Since participation in a rehearsal cannot be “made-up,” and professional ethics dictate professional behavior in the discipline, ensemble directors expect attendance at **all** rehearsals and performances.

ACADEMIC ADVISING AND COURSE SEQUENCE

Students are required to see their advisors regarding registration and other activities related to academic matters. They must have appropriate approval including an advisor’s signature before registering for courses. Students should consult with their advisor regularly, especially during pre-registration and during the general registration period each semester. Students must always consult with their advisors when making any kind of a course or registration change. **It is important to follow the sequence of courses as outlined in the curriculum.**

The suggested sequences of courses for music majors are available on the Department of Fine Arts website. Courses should be scheduled as prescribed for each semester. A music major must have no grade less than “C” in all required music courses. Music education majors must follow the policies and procedures for admission to teacher education and admission to student teaching as stated by the School of Education and Psychology.

Curriculum Requirements for the Bachelor of Music with a Major in Music Education (Piano, Instrumental, or Vocal)

General Education Core	Class	Credit Hours
SA 223	Oral Communication	3
UL 101	University Life	1
EN 111-112 EN 213	Composition I-II Studies in Literature	9
PE 122	Health	3
MA 121	College Algebra	3
BI, CH, or PY	Science Electives	6
ED 200	Social Studies/Multicultural Ed.	3
PH 132	General Psychology	<u>3</u>
	Subtotal	31
Professional Education		
ED 348	Foundations of Education	3
PH 326	Psychology of the Excep. Child	3
PH 336	Educational Psychology	3
ED 302*	Teaching Practicum/Technology	3
MU 337/339*	Systemic Approaches to Music	6
ED 351*	Managing Classroom Behavior	3
ED 498*	Reading in the Secondary School	3
ED 468*	Directed Teaching	<u>12</u>
	Subtotal	36
Basic Musicianship Performance		
MU 01-18	Ensembles (7 semesters)	0
MU 052	Student Recital (7 semesters)	0
MU 101-102/MU 201-202	Aural Skills (Sight Singing)	4
MU 111-112/ 211-212/311-312	Theory Musicianship	18
MU 121/421	Applied Instr. (Senior Recital)	14
MU 151-152/253-254	Piano Class (Piano Proficiency)	4
MU 114/315/316	Intro. to Music Lit., Music History I II	8
MU 272	Jazz Improvisation I	2
MU 332	Conducting	<u>3</u>
	Subtotal	53
Piano		
MU 205	Survey of Instruments	2
MU 375 341	Piano Pedagogy Piano Literature	4
MU 252	Voice Class	2

MU 347	Accompanying	2
Piano Class not required		<u>-4</u>
	Subtotal Piano	6
Instrumental		
MU 215/216	Instrument Classes I II	4
MU 252	Voice Class	2
MU 461	Band Techniques	<u>2</u>
	Subtotal Instrumental	8
Vocal		
MU 205	Survey of Instruments	2
MU 373	Vocal Pedagogy Practicum	2
MU 348	Diction I	2
MU 121	Applied Piano	2
Jazz Improvisation not required		<u>-2</u>
	Subtotal Vocal	6
	Total Piano Vocal	126
	Total Instrumental	128

Ensembles

Marching Band - Fall Semester Only (2 semesters required for Instrumental Majors)

Wind Ensemble or Concert Band - Spring Semester Only (1 semester required for Instrumental Majors)

Jazz Lab Band (1 semester required for Instrumental Majors)

Concert Choir (Required for Vocal Majors)

Special Notes

*Requires completion of PRAXIS I Core Academic Skills for Educators and formal admittance to Teacher Education

**Requires completion of PRAXIS II and formal admittance to Student Teaching

Curriculum Requirements for the Bachelor of Music with a Major in Performance (Piano, Instrumental, or Vocal)

General Education Core	Class	Credit Hours
PE 100 (Vocal Piano) MU 11A (Instr.)		1
UL 101	University Life	1
EN 111-112 EN 213	Composition I-II Studies in Literature	9
SA 223	Oral Communication	3
ND 101	Health Wellness	1
MA 121	College Algebra	3
BI, CH, or PY	Science Electives	6

HI, SS, GT, SY, or EC	Social Science Elective	3
PH 132	General Psychology	<u>3</u>
	Subtotal	30
Major Area		
MU 052	Student Recital (8 semesters)	0
MU 121-323 423	Applied Instrument (Voice)	14
MU 324, 424	Junior Senior Recital	6
MU 371/373/or 375	Pedagogy Practicum (Applied Area)	2
MU 340/341/or 342	Applied Area Literature	<u>2</u>
	Subtotal	24
Piano Major Only		
Ensembles		5
Piano Class not required		-4
MU 347 (two semesters)	Accompanying	4
Music Electives	Music Elective	10
Free Electives		<u>12</u>
	Subtotal Piano	27
Instrumental Major Only		
Ensembles		7
MU 346	Chamber Music	2
MU Electives	Music Electives	9
Free Electives		<u>9</u>
	Subtotal Instrumental	
Vocal Major Only		
Ensembles		5
FR or SP 111 112	Spanish	6
MU 348/349	Diction I II	4
Free Electives		<u>12</u>
	Subtotal Vocal	27
	Total	120

Ensembles (PARTICIPATION IS REQUIRED EACH SEMESTER)

Marching Band (Fall Semester) and Wind Ensemble or Concert Band (Spring Semester)

Jazz Lab Band (2 Semesters Required of Piano Majors)

Concert Choir (Required of Vocal Majors)

Music Electives	Class	Credit Hours
MU 121-422	Applied Secondary Instrument	2 - 16
MU 210	Opera Musical Theatre Workshop	1 - 8
MU 317	Music in the Romantic Period	2
MU 318	Music in the Renaissance Period	2
MU 346	Chamber Music	2
MU 347	Accompanying	2
MU 319	Music in the Baroque Period	2
MU 320	Music in the Twentieth Century	2
MU 326	Music in the Classical Period	2
MU 403	Independent Study	2
MU 432	Opera	2
MU 273	Jazz Improvisation	2
MU 327	Jazz History	3
MU 231-232	Jazz Theory I II	3 - 6
MU 031	Jazz Combo	1 - 8

Curriculum Requirements for the Bachelor of Arts in Music

General Studies	Class	Credit Hours
PE 100-200 or MS 101-102	PE or Introduction to the Army or Marching Band	1
UL 101	University Life	1
EN 111-112	Composition	6
EN 213	Studies in Literature	3
SA 223	Oral Communication	3
ND 101	Health and Wellness	1
MA 121	College Algebra	3
AR 214 or HU 201	Art Appreciation or Humanities	3
BI, CH or PY	Science Electives	6
SS, or HI	Social Science Electives	6
SP 111 and 112	Spanish I and II	6
PH 132	General Psychology	3
	Subtotal	42
Basic Musicianship and Performance		
MU 11-18	Ensembles (8 semesters)	8
MU 052	Student Recital (8 semesters)	0
MU 121-421	Applied Instrument or Voice	14
MU 101-102 and MU 201	Aural Skills (and Sight Singing)	3

MU 111-112,211-212	Theory and Musicianship	12
MU 114	Intro to Music Literature	2
MU 151-152 and 253-254	Piano Class (and Piano Proficiency)	4
MU 315 and 316	Music History	6
MU	Music Elective I and II	3
MU 403	Independent Study	<u>2</u>
	Subtotal	54
	Concentration	21
	Elective	<u>3</u>
	Total	120

Bachelor of Music (Instrumental Music Education Major) (128 Credit Hours)

Freshman Year (33)							
First Semester	Class		Hrs.		Second Semester	Class	Hrs.
MU 001A	Marching Band		0		MU 002E	Wind Ensemble	0
MU 101	Aural Skills		1		MU 102	Aural Skills	1
MU 111	Theory and Musicianship		3		MU 112	Theory and Musicianship	3
MU 121	Applied Instrument		2		MU 122	Applied Instrument	2
MU 151	Piano Class I		1		MU 152	Piano Class	1
MU 052	Recital		0		MU 052	Recital	0
EN 111	Composition I		3		EN 112	Composition II	3
UL 101	University Life		1		PE 122	Health	3
MA 121	College Algebra		3		PH 132	General Psychology	<u>3</u>
_____	Science Elective		<u>3</u>				
	TOTAL		17		TOTAL		16
Sophomore Year (31)							
MU 003A	Marching Band		0		MU 004E	Wind Ensemble	0
MU 101	Aural Skills		1		MU 202	Aural Skills	1
MU 211	Theory and Musicianship		3		MU 212	Theory and Musicianship	3
MU 221	Applied Instrument		2		MU 222	Applied Instrument	2
MU 253	Piano Class III		1		MU 254	Piano Class	1
MU 052	Recital		<u>0</u>		MU 052	Recital	0
MU 114	Intro to Music Lit.		2		SA 223	Oral Communication	3
_____	Science Elective		3		PH 326	Psychology of the Excep. Child	3
ED 200	Social Studies/Multicultural Ed.		<u>3</u>		EN 213	Studies in Literature	<u>3</u>
	TOTAL		15		TOTAL		16

Junior Year (36)								
MU 005A	Marching Band		0		MU 006E	Wind Ensemble		0
MU 215	Instrument Class I		2		MU 216	Instrument Class II		2
MU 311	Theory and Musicianship		3		MU 252	Voice Class		2
MU 315	Music History I		3		MU 312	Theory and Musicianship		3
MU 321	Applied Instrument		2		MU 316	Music History II		3
MU 337	Sys. App. to Elem. Music		3		MU 322	Applied Instrument		2
MU 052	Recital		0		MU 332	Conducting		3
ED 348	Foundations of Ed.		3		MU 339*	Sys App. to Sec. Music		3
MU 272	Jazz Improvisation I		<u>2</u>		MU 052	Recital		<u>0</u>
	TOTAL		18		TOTAL			18

Senior Year (28)								
MU 007A	Marching Band		0		ED 468**	Directed Teaching		<u>12</u>
MU 421	Applied Ins. (Sr. Rec.)		2					
MU 461	Band Techniques		2					
MU 052	Recital		0					
PH 336	Educational Psychology		3					
ED 351*	Managing Classroom Beh.		3					
ED 302	Teaching Practicum/Technology		3					
ED 498*	Reading in the Secondary School		<u>3</u>					
	TOTAL		16		TOTAL			12

Bachelor of Music (Instrumental Performance Major) (120 Credit Hours)

Freshman Year (33)								
First Semester	Class		Hrs.		Second Semester	Class		Hrs.
MU 001A	Marching Band		1		MU 002E	Wind Ensemble		1
MU 101	Aural Skills		1		MU 102	Aural Skills		1
MU 111	Theory and Musicianship		3		MU 112	Theory and Musicianship		3
MU 121	Applied Instrument		2		MU 122	Applied Instrument		2
MU 151	Piano Class I		1		MU 152	Piano Class		1
MU 052	Recital		0		MU 052	Recital		0
EN 111	Composition I		3		EN 112	Composition II		3
MA 121	College Algebra		3		ND 101	Health and Wellness		1
UL 101	University Life		<u>1</u>		PH 132	General Psychology		3
					_____	Science Elective		<u>3</u>
	TOTAL		15		TOTAL			18

Sophomore Year (30)								
MU 003A	Marching Band		1		MU 014E	Wind Ensemble		1
MU 201	Aural Skills		1		MU 202	Aural Skills		1
MU 211	Theory and Musicianship		3		MU 212	Theory and Musicianship		3
MU 253	Piano Class III		1		MU 254	Piano Class V		1

MU 221	Applied Instrument	2		MU 222	Applied Instrument	2
MU 052	Recital	0		MU 052	Recital	0
MU 114	Intro to Music Lit.	2		SA 223	Oral Communication	3
_____	Social Science Elective	3		_____	Science Elective	3
EN 213	Studies in Literature	3				
	TOTAL	16		TOTAL		14

Junior Year (30)

MU 015A	Marching Band	1		MU 016E	Wind Ensemble	1
MU 323	Applied Instrument	3		MU 312	Theory and Musicianship	3
MU 311	Theory and Musicianship	3		MU 316	Music History II	3
MU 315	Music History I	3		MU 324	Junior Recital	3
_____	Music Elective	3		MU 332	Conducting	3
MU 052	Recital	0		MU 371	Instrumental Ped and Pract.	2
MU 272	Jazz Improvisation I	2		MU 052	Recital	0
	TOTAL	15		TOTAL		15

Senior Year (27)

MU 017A	Marching Band	1		MU 018E	Wind Ensemble	1
MU	Music Elective	2		MU	Music Elective	2
MU	Music Elective	2		MU 340	Instrumental Literature	2
MU 346	Chamber Music	2		MU 424	Senior Recital	3
MU 423	Applied Instrument	3		MU 052	Recital	0
MU 052	Recital	0		_____	Elective	3
_____	Elective	3		_____	Elective	3
	TOTAL	13		TOTAL		14

Bachelor of Music (Vocal Music Education Major) (126 Credit Hours)

Freshman Year (33)

First Semester	Class	Hrs.		Second Semester	Class	Hrs.
MU 001B	Concert Choir	0		MU 002B	Concert Choir	0
MU 101	Aural Skills	1		MU 102	Aural Skills	1
MU 111	Theory and Musicianship	3		MU 112	Theory and Musicianship	3
MU 121C	Applied Voice	2		MU 122C	Applied Voice	2
MU 151	Piano Class I	1		MU 152	Piano Class II	1
EN 111	Composition I	3		MU 052	Recital	0
_____	Science Elective	3		EN 112	Composition II	3
MA 121	College Algebra	3		PE 122	Health	3
MU 052	Recital	0		PH 132	General Psychology	3
UL 101	University Life	1				
	TOTAL	17		TOTAL		16

Sophomore Year (33)

MU 003B	Concert Choir	0		MU 004B	Concert Choir	0
MU 201	Aural Skills	1		MU 202	Aural Skills	1

MU 211	Theory and Musicianship	3		MU 212	Theory and Musicianship	3
MU 221C	Applied Voice	2		MU 222C	Applied Voice	2
MU 253	Piano Class III	1		MU 254	Piano Class IV	1
MU 052	Recital	0		MU 052	Recital	0
MU 205	Survey of Instruments	2		SA 223	Oral Communication	3
MU 114	Intro to Music Lit.	2		PH 326	Psychology of the Excep. Child	3
ED 200	Social Studies/Multicultural Ed.	3		EN 213	Studies in Literature	3
_____	Science Elective	3				
	TOTAL	17		TOTAL		16

Junior Year (34)

MU 005B	Concert Choir	0		MU 006B	Concert Choir	0
MU 348	Diction I	2		MU 121A	Applied Piano	2
MU 311	Theory and Musicianship	3		MU 312	Theory and Musicianship	3
MU 315	Music History I	3		MU 316	Music History II	3
MU 321C	Applied Voice	2		MU 322C	Applied Voice	2
MU 337	Sys. App. to Elem. Music	3		MU 332	Conducting	3
MU 052	Recital	0		MU 339*	Sys App. to Sec. Music	3
ED 348	Foundation of Education	3		MU 373	Vocal Ped. and Practicum	2
				MU 052	Recital	0
	TOTAL	16		TOTAL		18

Senior Year (26)

MU 007B	Concert Choir	0		ED 468**	Directed Teaching	12
MU 421C	Applied Voice (Senior R.)	2				
MU 052	Recital	0				
PH 336	Educational Psychology	3				
ED 351*	Managing Classroom Beh.	3				
ED 302	Teaching Practicum/Technology	3				
ED 498*	Reading in the Secondary School	3				
	TOTAL	14		TOTAL		12

Bachelor of Music (Vocal Performance Major) (120 Credit Hours)

Freshman Year (33)

First Semester	Class	Hrs.		Second Semester	Class	Hrs.
MU 001B	Concert Choir	1		MU 002B	Concert Choir	0
MU 101	Aural Skills	1		MU 102	Aural Skills	1
MU 111	Theory and Musicianship	3		MU 112	Theory and Musicianship	3
MU 121C	Applied Voice	2		MU 122C	Applied Voice	2
MU 151	Piano Class I	1		MU 152	Piano Class II	1
MU 052	Recital	0		MU 052	Recital	0
EN 111	Composition I	3		EN 112	Composition II	3
MA 121	College Algebra	3		PH 132	General Psychology	3

UL 101	University Life		1		ND 101	Health and Wellness		1
PE 100	Physical Education I		<u>1</u>		_____	Science Elective		<u>3</u>
	TOTAL		16			TOTAL		17

Sophomore Year (30)

MU 003B	Concert Choir		1		MU 014B	Concert Choir		1
MU 201	Aural Skills		1		MU 202	Aural Skills		1
MU 211	Theory and Musicianship		3		MU 212	Theory and Musicianship		2
MU 253	Piano Class III		1		MU 253	Piano Class IV		1
MU 221C	Applied Voice		2		MU 222C	Applied Voice		2
MU 052	Recital		0		MU 052	Recital		0
MU 114	Intro to Music Lit.		2		SA 223	Oral Communication		3
_____	Social Science Elective		3		_____	Science Elective		<u>3</u>
EN 213	Studies in Literature		<u>3</u>					
	TOTAL		16			TOTAL		14

Junior Year (28)

MU 015B	Concert Choir		0		MU 016B	Concert Choir		0
MU 323C	Applied Voice		3		MU 312	Theory and Musicianship		3
MU 311	Theory and Musicianship		3		MU 320	Music in the Twentieth Century		3
MU 315	Music History I		3		MU 324C	Junior Recital		3
MU 348	Diction I		2		MU 349	Diction II		2
MU 052	Recital		0		MU 052	Recital		0
SP 111	Spanish		<u>3</u>		SP 112	Spanish		<u>3</u>
	TOTAL		14			TOTAL		14

Senior Year (29)

MU 017	Concert Choir		1		MU 008	Concert Choir		1
_____	Elective		3		MU 332	Conducting		3
MU 373	Vocal Ped. and Practicum		2		MU 342	Vocal Literature		2
MU 423C	Applied Voice		3		_____	Elective		3
MU 052	Recital		0		MU 424C	Senior Recital		3
_____	Elective		3		MU 052	Recital		0
MU 272	Jazz Improvisation I		<u>2</u>		_____	Elective		<u>3</u>
	TOTAL		14			TOTAL		15

Bachelor of Music (Piano Music Education Major) (126 Credit Hours)

Freshman Year (31)

First Semester	Class	Hrs.		Second Semester	Class	Hrs.
MU 001	Concert Choir or Band	0		MU 002	Concert Choir or Band	0
MU 101	Aural Skills	1		MU 102	Aural Skills	1
MU 111	Theory and Musicianship	3		MU 112	Theory and Musicianship	3
MU 121A	Applied Piano	2		MU 122A	Applied Piano	2
MU 052	Recital	0		MU 052	Recital	0

EN 111	Composition I	3		EN 112	Composition II	3
_____	Science Elective	3		PE 122	Health	3
MA 121	College Algebra	3		PH 132	General Psychology	<u>3</u>
UL 101	University Life	<u>1</u>				
	TOTAL	16		TOTAL		15

Sophomore Year (33)

MU 003	Concert Choir or Band	0		MU 004	Concert Choir or Band	0
MU 201	Aural Skills	1		MU 202	Aural Skills	1
MU 211	Theory and Musicianship	3		MU 212	Theory and Musicianship	3
MU 221A	Applied Piano	2		MU 222A	Applied Piano	2
MU 205	Survey of Instruments	2		MU 252	Voice Class	2
MU 052	Recital	0		MU 052	Recital	0
MU 114	Intro to Music Lit.	2		PH 326	Psychology of the Excep. Child	3
_____	Science Elective	3		EN 213	Studies in Literature	3
ED 200	Social Studies/Multicultural Ed.	<u>3</u>		SA 223	Oral Communication	<u>3</u>
	TOTAL	16		TOTAL		17

Junior Year (36)

MU 005	Concert Choir or Band	0		MU 006	Concert Choir or Band	0
MU 231A	Applied Piano	2		MU 232A	Applied Piano	2
MU 311	Theory and Musicianship	3		MU 312	Theory and Musicianship	3
MU 315	Music History I	3		MU 316	Music History II	3
MU 347	Accompanying	2		MU 332	Conducting	3
MU 337	Sys. App. to El. Music	3		MU 339*	Sys App. to Sec. Music	3
MU 052	Recital	0		MU 341	Piano Literature	2
ED 348	Foundations of Ed.	3		MU 375	Piano Pedagogy and Pract.	2
MU 272	Jazz Improvisation I	<u>2</u>		MU 052	Recital	<u>0</u>
	TOTAL	18		TOTAL		18

Senior Year (26)

MU 007	Concert Choir or Band	0		ED 468**	Directed Teaching	<u>12</u>
MU 421A	Applied Piano (Sr. Rec.)	2				
MU 052	Recital	0				
PH 336	Educational Psychology	3				
ED 351*	Managing Classroom Beh.	3				
ED 302	Teaching Practicum/Technology	3				
ED 498*	Reading in the Secondary School	<u>3</u>				
	TOTAL	14		TOTAL		12

Bachelor of Music (Piano Performance Major) (120 Credit Hours)

Freshman Year (31)

First Semester	Class	Hrs.		Second Semester	Class	Hrs.
MU 011	Concert Choir or Band	1		MU 012	Concert Choir or Band	0
MU 101	Aural Skills	1		MU 102	Aural Skills	1
MU 111	Theory and Musicianship	3		MU 112	Theory and Musicianship	3

MU 121A	Applied Piano		2		MU 122A	Applied Piano		2
MU 052	Recital		0		MU 052	Recital		0
EN 111	Composition I		3		EN 112	Composition II		3
MA 121	College Algebra		3		_____	Science Elective		3
UL 101	University Life		1		ND 101	Health & Wellness		1
PE 100	Physical Education I		<u>1</u>		PH 132	General Psychology		<u>3</u>
	TOTAL		15			TOTAL		16

Sophomore Year (28)

MU 003	Concert Choir or Band		1		MU 014	Concert Choir or Band		1
MU 201	Aural Skills		1		MU 202	Aural Skills		1
MU 211	Theory and Musicianship		3		MU 212	Theory and Musicianship		3
MU 114	Intro to Music Lit.		2		MU 222A	Applied Piano		2
MU 221A	Applied Piano		2		MU 052	Recital		0
MU 052	Recital		0		_____	Science Elective		3
_____	Social Science Elective		3		SA 223	Oral Communication		<u>3</u>
EN 213	Studies in Literature		<u>3</u>					
	TOTAL		15			TOTAL		13

Junior Year (32)

MU 015	Concert Choir or Band		1		MU 016	Concert Choir or Band		1
MU 311	Theory and Musicianship		3		MU 312	Theory and Musicianship		3
MU 315	Music History I		3		MU 316	Music History II		3
MU 323A	Applied Piano		3		MU 324A	Junior Recital		3
MU	Music Elective		2		MU 332	Conducting		3
MU 052	Recital		0		MU 375	Piano Pedagogy and Pract.		2
_____	Elective		3		MU 052	Recital		<u>0</u>
MU 272	Jazz Improvisation I		<u>2</u>					
	TOTAL		17			TOTAL		15

Senior Year (29)

MU 007	Concert Choir or Band		0		MU 008	Concert Choir or Band		0
MU	Music Elective		2		MU	Music Elective		2
MU	Music Elective		2		MU	Music Elective		2
MU 347	Accompanying		2		MU 341	Piano Literature		2
MU 423A	Applied Piano		3		_____	Elective		3
MU 052	Recital		0		MU 424A	Senior Recital		3
_____	Elective		3		MU 052	Recital		0
_____	Elective		<u>3</u>		MU 347	Accompanying		<u>2</u>
	TOTAL		15			TOTAL		14

Bachelor of Arts in Music (120 Credit Hours)

Freshman Year (31)

First Semester	Class	Hrs.		Second Semester	Class	Hrs.
MU 011	Ensemble Elective	1		MU 012	Ensemble Elective	1

MU 101	Aural Skills		1		MU 102	Aural Skills		1
MU 111	Theory and Musicianship		3		MU 112	Theory and Musicianship		3
MU 121	Applied		2		MU 122	Applied		2
MU 052	Recital		0		MU 052	Recital		0
EN 111	Composition I		3		MU 152	Piano Class II		1
MA 121	College Algebra		3		EN 112	Composition II		3
UL 101	University Life		1		ND 101	Health and Wellness		1
MU 151	Piano Class		<u>1</u>		_____	Science Elective		3
					PE 100	Physical Education I		<u>1</u>
	TOTAL		15			TOTAL		16

Sophomore Year (32)

MU 013	Ensemble Elective		1		MU 014	Ensemble Elective		1
MU 201	Aural Skills		1		MU 254	Piano Class IV		1
MU 211	Theory and Musicianship		3		MU 212	Theory and Musicianship		3
MU 114	Intro to Music Lit.		2		MU 222	Applied		2
MU 221	Applied		2		MU 052	Recital		0
MU 052	Recital		0		PH 132	General Psychology		3
MU 253	Piano Class III		1		_____	Social Science Elective		3
EN 213	Studies in Literature		3		_____	Science Elective		<u>3</u>
_____	Science Elective		<u>3</u>					
	TOTAL		16			TOTAL		16

Junior Year (30)

MU 015	Ensemble Elective		1		MU 016	Ensemble Elective		1
MU 321	Applied		2		MU 322	Applied		2
MU 315	Music History I		3		MU 316	Music History I		3
MU 052	Recital		0		MU 052	Recital		0
_____	AR 214 or HU 201		3		_____	Concentration		3
_____	Concentration		3		_____	Concentration		3
SP 111	Spanish I		<u>3</u>		SP 112	Spanish II		<u>3</u>
	TOTAL		15			TOTAL		15

Senior Year (27)

MU 017	Ensemble Elective		1		MU 018	Ensemble Elective		1
MU 421	Applied		2		MU 403	Independent Study		2
MU 052	Recital		0		MU 052	Recital		0
SA 223	Oral Communication		3		_____	Music Elective		3
_____	Concentration		3		_____	Concentration		3
_____	Concentration		3		_____	Elective		<u>3</u>
_____	Concentration		<u>3</u>					
	TOTAL		15			TOTAL		12

Notes

Students may take MU 121A and 122A in place of 4 semesters of piano class.

Students may take MU 11A and (Marching Band) in place of one semesters of PE. These students will take an additional elective in place of the PE requirement.

Students taking applied piano as their major instrument will take 4 hours of music electives in place of piano class.

Bachelor of Arts in Music (Suggested Concentrations)

Biology

- 8 hrs BI 111 and 112 or BI 121 and 122 or BI 125 126 or BI 191 192 (with labs)
(Taken as Science Electives in General Ed Core)
- 4 hrs BI 325 General Microbiology (with lab)
- 4 hrs BI 327 Cell Biology
- 12 hrs Biology Electives (300 and 400 level courses)

Mass Communication

- 3 hrs CO 100 Introduction to Mass Communication
- 3 hrs CO 218 Broadcast Announcing or CO 232 Basic News Reporting
- 3 hrs CO 333 Mass Comm Law and Ethics
- 9 hrs Communication Electives (300 and 400 level courses)
- 3 hrs CO 495 Internship in Mass Comm. or CO 410 Workshop in Mass Comm.

English

- 3 hrs EN 214 Special Topics in Literature
- 3 hrs EN 316 Advanced Composition
- 15 hrs English Electives (300 and 400 level courses)

Math

- 8 hrs MA 181 and 182 Calculus
- 3 hrs MA 203 Foundations of Math
- 9 hrs Math Electives (300 and 400 level courses)

Computer Science

- 9 hrs CS 202, 203 and 251 Programming in C++
- 3 hrs CS 321 Data Structures and Financial Accounting
- 9 hrs Computer Science Electives (300 and 400 level courses)

Pre-Law

- 6 hrs GT 101 and GT 102 American Government
- 6 hrs GT 322 and 332 Constitutional Law
- 9 hrs Political Science Electives (300 and 400 level courses)

Business

- 6 hrs EC 201 and 202 Principles of Economics I and II (To be taken as Social Science Electives in General Ed Core)
- 6 hrs AC 213 and 214 Principles of Financial/Managerial Accounting
- 3 hrs BA 237 Legal Environment of Business
- 3 hrs MG 301 Principles of Management
- 3 hrs MK 301 Principles of Marketing
- 6 hrs Business Electives (BA, MG, or MK, 300 and 400 level courses)

Education and Psychology

- 3 hrs ED 200 Social Studies/Multicultural Ed. (Taken as Social Science Elective in General Ed Core)
- 3 hrs ED 348 Foundations of Education
- 3 hrs PH 325 Adolescent Psychology
- 3 hrs PH 326 Psychology of the Exceptional Child
- 12 hrs Education and Psychology Electives (300 and 400 level courses)

DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE

Ping Zhang, Ph.D., Chair

Math and Science Bldg., #101

Telephone: (601) 877-6430

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Mission and Objectives

The mission of the Department of Mathematics and Computer Science is to provide high quality instruction in mathematics and computer science and to pursue research. The objectives of the department are:

1. Offer undergraduate courses and organize research activities to prepare students for leadership, scholarship, and service in applied mathematics and computer science.
2. Provide undergraduate math and computer courses that accommodate the needs of students in all disciplines.
3. Equip students with adequate math and computational skills for going to graduate school, or performing competently in their career.
4. Further develop students' research skills by providing graduate programs in Math Education and Computer and Information Science.

Degree Programs:

1. Baccalaureate in Science (B.S.) degree in **Computer Science**
2. Baccalaureate in Science (B.S.) degree in **Mathematics and its concentration in Data Science**
3. Baccalaureate in Science (B.S.) degree in **Math Education**
4. Master of Science (M.S.) degree in **Computer and Information Science**
5. Master of Science (M.S.) degree in **Secondary Education with an Endorsement in Mathematics**

In addition, the department offers mathematics instruction to undergraduate students in all disciplines and computer science courses to students in majors that require computer skills.

Occupational Outlook and Employment

The record of the job placement of this department's graduates demonstrates the quality of the programs and the tremendous demand of the job market for computer science and mathematics. Prospective students are encouraged to visit the website of the Occupational Outlook Handbook edited by the US Department of Labor (<http://www.bls.gov/ooh/>) and query Occupation Groups in Computer and Information Technology or Math.

Our graduates have been and may work in the fields such as Computer Network Architects, Programmers, System Analysts, Database Administrators, Network Administrators, Web Developers, Math Teachers, and Operations Research Analysts, Statistics Experts and Mathematicians. The outlook of these careers shows growth that is much faster than the average.

The department reaches out to create opportunities for our students. The department keeps relationship with the Division of Information Technology of the Engineer Research and Development Center (ERDC). The program trains and prepares our students for the jobs in Fortune 500 companies. The department encourages and helps our students to do internship in local business and out of state.

Scholarship

The Department of Mathematics and Computer Science has special assistantship/scholarship for our students majoring in computer science, math, and math education. In recent years, the department has received over 1.6 million dollars of grants. Part of the grants have been used to provide tuition assistantship for our graduate and undergraduate students in the programs.

For example, C-Spire provides a special scholarship for students who are Computer Science majors and are Mississippi residents every year. C-Spire also invites the recipients to have internship in the company. NASA scholarship is awarded to undergraduate junior or senior students with a high GPA in the department. USDA research/teaching assistantships are available for graduate and undergraduate students in the department. Interested students can work in the University Mathematics Center as teaching assistants. HBCU Master Program assistantships are available for graduate students in the department.

Prospective students may contact the department office to get detailed information. In addition to these special scholarships and employment opportunities, students can also get financial aid from the University.

Accreditation

The BS program in Math Education is accredited by CAEP (former NCATE, Council for the Accreditation of Educator Preparation)

Graduation Requirement

A minimum grade of “C” is required in all major courses. However, for general core courses, the minimum passing grade can be “D” or above. All the electives should be 200 level or above unless mentioned otherwise. The student’s advisor must approve **in advance** all the electives in the Department of Math and Computer Science. Each student needs to pass an Exit Exam in the senior year to graduate.

Computer Science Curriculum (120 Credit Hours)

Freshman Year (30)							
First Semester	Class		Hrs.		Second Semester	Class	Hrs.
CS 202	Programming in C++ I		3		CS 203	Programming in C++ II	3
EN 111	Composition I		3		PY 111	Physical Science I	3
SS 111	Social Institutions		3		EN 112	Composition II	3
MA 121/MA122	College Algebra		3		MA 181	Calculus I w/Ana. Geom.	4
CS 100	Intro. to Computers		1		HI 111	World Civilization I	3
UL 101	University Life		1				
	TOTAL		14		TOTAL		16
Sophomore Year (30)							
CS 251	Object Oriented Programming		3		EN 213	Studies in Literature	3
AR 214	Art Appreciation		3		SA 223	Oral Communication	3
MA 182	Calculus II w/Ana. Geom.		4		CS 321	Data Structures and Algorithms	3
PY 217	General Physics (Calculus)		3		MA 304	Discrete Math	3
PY 217L	General Physics (Calculus) Lab		1		_____	Elective(CS380 Python Programming or CS 485 Fundamentals of Cyber Security,)	3
ND 101	Health and Wellness		1				
	TOTAL		15		TOTAL		15
Junior Year (30)							
CS 370	Unix Programming I		3		CS 401	PC Architecture	3
CS 350	Operating Systems		3		CS 360	Software Engineering Principle	3
MA 369	Probability & Statistics		3		MA 346	Linear Algebra	3
CS 420	Database Systems		3		CS 454	Web Application and E-Commerce	3
CS 410	PC Assembly & PC Interface		3		_____	Elective (Unrestricted)	3
	TOTAL		15		TOTAL		15
Senior Year (30)							
CS 465	Databases for Data Analysis		3		CS 441	Computer Net. Telecom II	3

CS 440	Computer Net. Telecom Network I	3		CS 460	Program. Languages & Compilers	3
CS 445	Scientific Computation	3		CS 480	JAVA Programming	3
CS 490	Senior Project in Computer Science	3		_____	Elective (Unrestricted)	3
_____	Elective (CS 486 Data Mining and Machine Learning or CS 488 Introduction to Software Security)	3		_____	Elective (Unrestricted)	3
	TOTAL	15			TOTAL	15

Mathematics Curriculum (120 Credit Hours)

Freshman Year (28)						
First Semester	Class	Hrs.		Second Semester	Class	Hrs.
EN 111	Composition I	3		EN 112	Composition II	3
AR 214	Art Appreciation	3		PY 111	Physical Science I	3
MA 181	Calculus I w/Ana. Geom.	4		MA 182	Calculus II w/Ana. Geom.	4
SS 111	Social Institutions	3		CS 202	Programming in C++ I	3
CS 100	Info. Tech. Proficiency	1				
UL 101	University Life	1				
	TOTAL	15			TOTAL	13
Sophomore Year (32)						
CS 203	Programming in C++ II	3		MA 220	Number Theory	3
EN 213	Introduction to Literature	3		MA 283	Calculus III	3
MA 203	Foundations of Math	3		EC 201	Principles of Economics	3
MA 401	Vector Analysis	3		HI 111	World Civilization	3
PY 217	General Physics (Calculus)	3		SA 223	Oral Communication	3
PY 217L	General Physics Lab	1		ND 101	Health and Wellness	1
	TOTAL	16			TOTAL	16
Junior Year (30)						
MA 336	Math Modeling	3		MA 304	Discrete Math	3
MA 348	Differential Equations	3		MA 346	Linear Algebra	3
MA 445	Scientific Computation	3		MA 370	Operation Research	3
_____	Elective (MA 334 College Geometry)	3		_____	Elective (MA 335 History of Math)	3
_____	Elective (MA 369 Probability & Statistics or MA 377 Statistics I)	3		_____	Elective (MA 368 Math Statistics or MA 378 Statistics II)	3
	TOTAL	15			TOTAL	15
Senior Year (30)						
MA 306	Real Number System	3		MA 408	Advanced Calculus	3
MA 412	Complex Variables	3		MA 444	Numerical Analysis	3
MA 443	Modern Algebra	3		MA 470	Research Project I	3

_____	Elective (MA 472 Data Analysis or CS 486 Data Mining and Machine Learning,)	3	_____	Elective (CS 380 Python Programming)	3
_____	Elective (unrestricted)	<u>3</u>	_____	Elective (unrestricted)	<u>3</u>
	TOTAL	15		TOTAL	15

Mathematics Curriculum with Concentration on Data Science (120 Credit Hours)

Freshman Year (28)					
First Semester	Class	Hrs.	Second Semester	Class	Hrs.
EN 111	Composition I	3	EN 112	Composition II	3
AR 214	Art Appreciation	3	PY 111	Physical Science I	3
MA 181	Calculus I w/Ana. Geom.	4	MA 182	Calculus II w/Ana. Geom.	4
SS 111	Social Institutions	3	CS 202	Programming in C++ I	<u>3</u>
CS 100	Info. Tech. Proficiency	1			
UL 101	University Life	<u>1</u>			
	TOTAL	15		TOTAL	13
Sophomore Year (32)					
CS 203	Programming in C++ II	3	MA 220	Number Theory	3
EN 213	Introduction to Literature	3	CS 251	Object Oriented Programming	3
MA 203	Foundations of Math	3	EC 201	Principles of Economics	3
MA 283	Calculus III	3	HI 111	World Civilization	3
PY 217	General Physics (Calculus)	3	SA 223	Oral Communication	3
PY 217L	General Physics Lab	<u>1</u>	ND 101	Health and Wellness	<u>1</u>
	TOTAL	16		TOTAL	16
Junior Year (30)					
MA 336	Math Modeling	3	MA 304	Discrete Math	3
MA 348	Differential Equations	3	MA 346	Linear Algebra	3
MA 369	Probability & Statistics	3	MA 378	Statistics II	3
CS 420	Database Systems	3	CS 454	Web Applications & Ecommerce	3
CS 321	Data Structure and Algorithms	<u>3</u>	_____	Elective (CS 380 Python Programming)	<u>3</u>
	TOTAL	15		TOTAL	15
Senior Year (30)					
CS 465	Databases for Data Analysis	3	MA 408	Advanced Calculus	3
MA 486	Data Mining and Machine Learning	3	MA 444	Numerical Analysis	3
MA 443	Modern Algebra	3	MA 470	Research Project I	3
_____	Elective (MA 412 Complex Variables)	3	_____	Elective (MA 370 Operations Research)	3
_____	Elective (MA 472 Data Analysis I)	<u>3</u>	_____	Elective (MA473 Data Analysis II)	<u>3</u>
	TOTAL	15		TOTAL	15

Mathematics Education Curriculum (120 Credit Hours)

Freshman Year (31)							
First Semester	Class	Hrs.		Second Semester	Class		Hrs.
EN 111	Composition I	3		EN 112	Composition II		3
HI 111	World Civilization I	3		MA 182	Calculus II w/Ana. Geom.		4
MA 181	Calculus I w/Ana. Geom.	4		PH 132	General Psychology		3
CS 201	Intro. to Comp. Prog. in Visual Basic	3		PY 111	Physical Science I		3
UL 101	University Life	1		ED 200	Social Studies/Multicultural Ed.		<u>3</u>
CS 100	Intro. to Computers	<u>1</u>					
	TOTAL	15			TOTAL		16
Sophomore Year (29)							
PY 217	General Physics (Calculus)	3		MA 283	Calculus III		3
PY 217	General Physics (Calculus) Lab	1		MA 220	Number Theory		3
EN 213	Studies in Literature	3		MA 304	Discrete Math		3
CS 202	Programming in C++ I	3		PH 326	Psychology of Exceptional Child		3
MA 203	Foundations of Math	3		SA 223	Oral Communication		<u>3</u>
ND 101	Health and Wellness	<u>1</u>					
	TOTAL	14			TOTAL		15
Junior Year (30)							
ED 302	Teaching Practicum/Technology	3		ED 348	Foundations of Education		3
MA 336	Math Modeling	3		MA 335	History of Math		3
MA 334	College Geometry	3		MA 346	Linear Algebra		3
MA 369	Probability & Statistics	3		MA 378	Statistics II		3
PH 336	Educational Psychology	<u>3</u>		AR 214	Art Appreciation		<u>3</u>
	TOTAL	15			TOTAL		15
Senior Year (30)							
ED 351	Managing Classroom	3		ED 468	Directed Teaching		<u>12</u>
ED 498	Reading in the Secondary School	3					
MA 443	Modern Algebra	3					
MA 485	Teaching Math in the Secondary School	3					
PH 347	Measure Evaluation	3					
_____	Elective (Unrestricted)	<u>3</u>					
	TOTAL	18			TOTAL		12

DEPARTMENT OF MILITARY SCIENCE

LTC Christian S. Newton, Chair

Alcorn State University, ROTC

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The Department of Military Science offers students an opportunity to obtain a Presidential Appointment as a Commissioned Officer, Second Lieutenant (2LT), in the United States Army or the United States Army Reserve through enrollment in the Army Reserve Officers' Training Corps (ROTC) Program, concurrent with the pursuit of an academic degree. Army ROTC is not a college major; rather, it is a series of courses taken in conjunction with courses in the students' undergraduate or graduate degree programs. All ROTC textbooks and essential materials are furnished at no cost. Completion of the Army ROTC Program prepares students for one of many professional careers (i.e., Human Resource Management, Communications and Electronics, Fiscal Management, Veterinary Medicine, Aviation, Law Enforcement, etc.) in the Active Army (full-time employment), the US Army Reserve / Army National Guard (part-time employment) or in Corporate America.

Program Objectives: to produce the future officer corps of the United States Army; to develop students' leadership and managerial potential that will facilitate their future performance in positions of responsibility in the Armed Forces or in Corporate America; and to develop the students' abilities to think creatively, and to speak and write effectively. The Program of Instruction also includes developing self-discipline, physical stamina, and other qualities that are symbolic cornerstones of leadership.

Traditionally, Army ROTC is a Four-Year Program that consists of a two year Basic Course (freshman and sophomore classes), a two year Advanced Course (junior and senior classes), and a 30 day paid Summer Internship, called Cadet Summer Training (CST), which is located at Fort Knox, Kentucky. The Program is available to all students who are enrolled full-time in the University. A Two-Year Program is also available to academic juniors or graduate students who meet the academic prerequisites for enrollment into the Advanced Course, or prior military service of any branch of the Armed Forces, or attend & complete the four-week CST Basic Camp (BC) paid internship at Fort Knox, Kentucky. ROTC courses count as general electives in all academic majors, and the ROTC Physical Fitness courses (MS 100, MS 200, MS 300, MS 400) satisfy the requirements for four semester hours of General Physical Education courses.

The Basic Course is available to all students who are enrolled full-time in the University. The program of instruction includes physical fitness sessions, lecture classes and leadership laboratory classes. Subjects taught include customs and courtesies, principles of management, leadership development, basic soldiering skills, etiquette, map reading, first aid, written and oral communication and ethics. Additionally, students learn the concepts of initiative, influence, planning and organization, time management, problem analysis decisiveness, and teamwork. The Basic Course imposes **NO MILITARY OBLIGATION** on the part of students, and they may withdraw at any time in accordance with the university's policies.

The Advanced Course is available to academic juniors and/or graduate students who are U.S. citizens, can meet the physical qualifications for contracting, have a minimum GPA of 2.0, have 60 semester hours remaining at the time of enrollment, and have completed the Basic Course/Basic Training or have completed Basic Camp. The program of instruction prepares students for the rigors and challenges of an Army Officer through lecture classes, leadership laboratory, field training exercises, and attendance at CST.

Subjects taught in lecture and leadership laboratory classes include leadership principles, assertiveness and self-evaluation, advanced drill and ceremony, counseling techniques, etiquette, written and oral communication, ethics, physical fitness, individual and squad tactics, advanced map reading and orienteering, small organization administration, personnel management, staff procedures and military justice. Students are also taught problem solving techniques, functions of the chain-of-command, and officer/enlisted relationships. Qualified students receive \$425 per month stipend during the academic year.

Two-year scholarships are available to college sophomores (payable in their junior year) and three-year scholarships are available to college freshmen with a 2.5 or above GPA (payable in their sophomore year). Each scholarship pays tuition and fees, and a spending allowance to the students (classification dependent). The Military Science Department provides a room and board stipend to all ROTC scholarship winners in addition to the contracted stipend (If the Cadet meets the minimum requirements).

BASIC COURSE CURRICULUM (No Military Obligation)

Freshman Year							
First Semester	Class	Hrs.		Second Semester	Class	Hrs.	
MS 101	Introduction to the Army	1		MS 102	Foundations of Leadership	1	
MS 101L	Military Science Lab	1		MS 102L	Foundations of Leadership Lab	1	
MS 100	Army Physical Conditioning	<u>2</u>		MS 150	Army Physical Conditioning	<u>1</u>	
	TOTAL	4			TOTAL	3	
Sophomore Year							
MS 201	Leadership & Decision Making	2		MS 202	Army Doctrine & Team Development	2	
MS 201L	Leadership & Decision Making Lab	1		MS 202L	Leadership Lab	1	
MS 200L	Army Physical Conditioning	<u>1</u>		MS 250	Army Physical Conditioning	<u>1</u>	
	TOTAL	4			TOTAL	4	
Summer Semester							
MS 200	Cadet Summer Training (Basic Camp)	<u>1</u>					
	TOTAL	1					

ADVANCED COURSE CURRICULUM (Must have Basic Course Prerequisites or MS 200 equivalent to enroll) and 60 semester hours remaining for Undergraduate Degree/36 semester hours for Graduate Degree.

Junior Year							
First Semester	Class	Hrs.		Second Semester	Class	Hrs.	
MS 301	Training Mgmt. & Warfighting Functions	3		MS 302	Applied Leadership in SUO	3	
MS 301L	Leadership Lab	1		MS 302L	Leadership Lab	1	
MS 300L	Army Physical Conditioning	<u>2</u>		MS 303	Military History	<u>3</u>	
	TOTAL	6			TOTAL	7	

Summer Semester							
MS 350	Cadet Summer Training (Advanced Camp)		<u>3</u>				
	TOTAL		3				
Senior Year							
MS 401	The Army Officer		3		MS 402	Company Grade Leadership	3
MS 401L	Leadership Lab		1		MS 402L	Leadership Lab	1
MS 400L	Army Physical Conditioning		<u>1</u>		MS 450	Army Physical Conditioning	<u>0</u>
	TOTAL		5		TOTAL		4

PROFESSIONAL MILITARY EDUCATION (PME)

Professional Military Education (PME) is a requirement for all students seeking to become a commissioned officer through the ROTC Program. It is designed to provide the cadet with the type of academic foundation necessary to support his or her continued intellectual growth as an officer in the United States Army.

Students seeking a commission in the United States Army must obtain a baccalaureate degree and complete at least one undergraduate course from each of the following designated fields of study: American military history, communication (oral and written), computer literacy, and awareness of Joint Force structure, capabilities and organizations.

A list of courses currently available at Alcorn State University which fulfill the PME requirements, by designated field of studies, is as follows:

Communication

Advanced Composition	EN 316
Journalism	CO 347
Technical Writing	EN 351
Research Writing	EN 352
Communication Management	BA 376
Advanced Reporting and Editing	CO 447
Vocabulary Development	EN 231
Oral Communication	SA 223

Computer Literacy

Programming in C++ I	CS 202
Basic Programming Computer Literacy	CS 511

American Military History

Military History	MS 303
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Non-Commission Participants

Other students who wish to participate in the Army ROTC program in a non-commission capacity may do so by completing the following list of courses:

Course	Class		Hrs.
MS 101/102	Introduction to the Army/Foundations of Leadership		4
MS 101L/102L	Military Science Lab 101/102		4
MS 201/202	Leadership & Decision Making/Army Doctrine & Team Development		4
MS 201L/202L	Military Science Lab 201/202		4
	TOTAL		16

DEPARTMENT OF SOCIAL SCIENCES

Dickson A. Idusuyi, Ph.D., Chair

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The primary aim of the Department of Social Sciences is to provide a broad education for students preparing for teaching, research, and service. Through its various curricula, the department seeks to achieve the following specific objectives:

1. to expose students to an historical knowledge of great issues and institutions, past and present to culture and society from the viewpoint of their dynamics, structure, and organization;
2. to develop within students a sharpened sensitivity to the socio-cultural, economic, and political problems confronting the American democracy in a global society;
3. to prepare students to teach the Social Sciences in elementary and secondary schools in the state and nation;
4. to create within students the competence for gainful employment within the Social Sciences and allied fields;
5. to prepare students to continue their education in graduate and professional studies.

The aim and objectives have been formulated in harmony with the functions and purposes of Alcorn State University. All students majoring in a Department of Social Sciences program will arrange their course sequence in consultation with a departmental advisor and/or the Chair of the Department.

Departmental Exit Exam: An exit examination, to be conducted in the student's senior year, is required of all social sciences majors. To be eligible for graduation, a student must pass the departmental exit examination with a grade of 70 or better out of a total of 100 points. The exam is given in November and March of the academic calendar year.

Degree Programs: The Department of Social Sciences offers baccalaureate degrees in four curricula areas: (1) Criminal Justice; (2) History; (3) Political Sciences/Pre-Law; (4) Sociology. Courses are required to be taken in sequence as listed in the degree programs. Summer school is designed for program catch-up providing needed courses are offered.

Special Features: In addition to offering a bachelor's degree in four curricula areas, the Department of Social Sciences seeks to address individualized academic interests by providing for the following:

1. **An Internship Program:** Internship programs are offered by the Department of Social Sciences for capable and interested majors. The student is screened through a preparatory process and placed in an internship in federal, state, and local government agencies or public and private agencies and organizations. The internship is part of degree requirements for majors in criminal justice and sociology. Other students may select the internship program as an elective credit course.
2. **Areas of Concentration:** For the social science student who wishes to have a more specialized knowledge base within a broad curriculum degree program, the Department of Social Sciences offers concentrations in the following areas: history, pre-law, sociology, political science, and criminal justice.

Graduation Requirements: To receive the bachelor's degree, candidates must (1) complete the semester hours required for graduation as identified per curricula area, (2) successfully pass all specified concentration courses with a grade of "C" or better, included among those courses are SS 307, SS 375 and SS 476, (3) pass the departmental exit examination with a score of 70 or better (out of a total of 100 points), and (4) meet general University requirements for graduation.

The four major curricula are: (1) Criminal Justice; (2) History; (3) Political Science/Pre-Law; (4) Sociology

MAJOR IN CRIMINAL JUSTICE

The purpose of the Criminal Justice undergraduate program is to provide students interested in law enforcement, criminal law, corrections and the criminal court system with a broad educational background emphasizing the social sciences, and, at the same time providing basic knowledge in the criminal justice field to the extent of specialization compatible with general university and school requirements. The curriculum leads to a Bachelor of Science degree.

DEGREE REQUIREMENTS

The Bachelor of Science in Criminal Justice will be awarded to a student who has successfully completed the following:

1. A maximum of 120 semester hours of coursework is required for graduation. A minimum of twenty-seven (27) of these hours must be taken in the Criminal Justice (CJ) course sequence, twelve (12) of the hours must be taken in the Political Science (GT) course sequence, and fifteen (15) hours in the Sociology (SY) course sequence. There are fifty (50) hours of core courses, and an additional fifteen (15) hours of Social Sciences, and six (6) hours of electives in the Social Sciences or psychology.
2. The satisfactory completion of each of the 27 hours of Criminal Justice courses, 6 hours of Political Science courses, and 3 hours of Sociology courses with a 3.0 (C) or better grade is a basic requirement. These specific course requirements include: CJ 200–Introduction to Criminal Justice; CJ 230– Introduction to Law Enforcement; CJ 350–Courts and Criminal Justice; CJ 370–Corrections; CJ 393–Criminal Law; CJ 330–Criminal Investigation; CJ 411– Deviant Behavior; CJ 415–Criminal Justice Procedure and Evidence; CJ 470–Public and Private Security; GT 332–Constitutional Law II; GT 327–The Judicial Process; SY 365–Racial and Cultural Minorities. Also, the student must successfully complete SS 473–Social Science Internship and the six (6) hours of electives with a 2.0 or better grade.
3. A minimum cumulative (overall) average of 2.5 is required for graduation.
4. Students must notify the Coordinator of the Criminal Justice Program of their intention to graduate at least one semester in advance of the expected date of graduation.

Freshman Year (33)							
First Semester	Class	Hrs.		Second Semester	Class	Hrs.	
EN 111	Composition I	3		EN 112	Composition II	3	
GT 101	American Government	3		GT 102	American Government	3	
BI 125	Intro. to Biology I	3		BI 113	Biology	3	
BI 125L	Intro. to Biology I Lab	1		MA 121	College Algebra	3	
ND 101	Health & Wellness	1		SP 112	Spanish II	3	
PE 101	Physical Education or	1		Elective	Physical Education	<u>1</u>	
MS 101	Intro. to the Army						
UL 101	University Life	1					
SP 111	Spanish I	3					
_____	Elective	<u>1</u>					
	TOTAL	17			TOTAL	16	
Sophomore Year (30)							
HI 225	United States History I	3		MU 213	Music Appreciation	3	
CJ 200	Intro. to Criminal Justice	3		HI 226	United States History II	3	
EN 213	Studies in Literature	3		CJ 230	The Police	3	
EC 201	Principles of Economics I	3		SA 223	Oral Communication	3	
SY 235	General Sociology	<u>3</u>		EC 202	Principles of Economics II	<u>3</u>	
	TOTAL	15			TOTAL	15	

Junior Year (30)							
CJ 370	Corrections		3		CJ 330	Criminal Investigation	3
SS 307	Statistical Methods		3		SY 330	Social Psychology	3
SY 335	Juvenile Delinquency		3		GT 327	Judicial Process	3
SY 365	Racial Cultural Minorities		3		GT 332	Constitutional Law II	3
SS 375	Research Methods		<u>3</u>		SS 397	Ethics	<u>3</u>
	TOTAL		15		TOTAL		15
Senior Year (27)							
CJ 411	Deviant Behavior		3		SY 419	Criminology	3
CJ 415	Criminal Justice Pro.		3		CJ 470	Private Securities Systems	3
CJ 350	Courts Crim. Justice		3		SS 473	Internship	3
_____	Elective		<u>3</u>		CJ 393	Criminal Law	3
					SS 476	Social Sciences Seminar	<u>3</u>
	TOTAL		12		TOTAL		15

Suggested Electives

PH 132 General Psychology SY 301 Rural Sociology
 SS 333 Introduction to Logic SY 408 The Family
 SS 347 Organizational Theory Analysis
 GT 423 Public Policy

History

The Department of Social Sciences offers courses and majors in History and the teaching of the Social Sciences at the secondary education level. There are two areas of concentration for History Majors – teaching and non-teaching. The purpose of the department’s course offerings in History are to 1) prepare History majors for graduate school or other related fields of employment, 2) prepare students wishing to receive a standard educator license to teach social sciences at the secondary education level. Each major offers required coursework which provides a sufficient background in specialized courses within the history curriculum and in the various social science disciplines to achieve success in either field of endeavor. Also, in conjunction with the Department of Education, and in compliance with the National Council of Social Studies Guidelines, the curriculum offers instruction in the teaching concentration with various pedagogical theories and their application to learning and materials that are used in the teaching of the social sciences.

After successfully completing a minimum of 44 semester hours, all majors wishing to pursue a license to teach social sciences at the secondary level must apply for admission to the University’s Teacher Education program. Students wishing to obtain a license to teach social science at the secondary education level are advised that they are expected to pass the following courses in the teaching concentration of the History Program with a “C” or better in EN 111, EN 112, SA 223, and PH 132, and have an overall grade point average (G.P.A.) of 2.50. In addition, students must also successfully complete all social science courses with a grade of “C” or better, meet the requirements of the Department of Social Sciences, and pass the Social Sciences Exit Examination, Praxis I, and Praxis II examinations. Students are encouraged to follow the sequential arrangement of the curriculum for both the teaching and non-teaching concentrations of the History/Social Science Education majors.

The course sequences listed are suggested because not every class listed can be offered each academic year. Consequently, students are strongly encouraged to remain in close contact with their departmental program advisor.

Courses

The following courses are required of all Social Science Education and History majors:

HI 112 or HI 192 (Honors)	World Civilization II	3 hrs.
HI 112 or HI 192 (Honors)	World Civilization II	3 hrs.
HI 225	United States History I	3 hrs.
HI 226	United States History II	3 hrs.
GR 318	World Geography	3 hrs.
SS 375	Research Methods	3 hrs.
SS 476	Social Science Seminar	3 hrs.

The following courses are required of all Social Science Education majors:

ED 302	Teaching Practicum/Technology	3 hrs.
ED 348	Foundations of Education	3 hrs.
ED 351	Managing Classroom Behavior	3 hrs.
ED 498	Reading in the Secondary School	3 hrs.
PH 326	Psychology of the Exceptional Child	3 hrs.
PH 336	Educational Psychology	3 hrs.
PH 347	Measurement Evaluation	3 hrs.
SS 485	Systemic Strategies in Social Science	3 hrs.
HI 328	Mississippi History	3 hrs.
HI 371	African American History I	3 hrs.
HI 372	African American History II	3 hrs.
HI 422	Historiography	3 hrs.
HI 460	Twentieth Century World History	3 hrs.

Social Science Education Major (120 Credit Hours)

Freshman Year (30)							
First Semester	Class		Hrs.		Second Semester	Class	Hrs.
EN 111	Composition I		3		EN 112	Composition II	3
BI 111	Intro. to Biology I		3		PY 111	Physical Science I	3
HI 111	World Civilization		3		HI 112	World Civilization II	3
MA 121	College Algebra		3		GT 102	American Government	3
UL 101	University Life		1		CS 100	Intro. to Computers	1
ND 101	Health and Wellness		1		AR 214	Art Appreciation	3
	TOTAL		14			TOTAL	16
Sophomore Year (33)							
EN 213	Studies in Literature		3		HU 201	Humanities	3

HI 225	United States History I		3		HI 226	United States History II		3
EC 201	Principles of Economics I		3		ED 351	Managing Classroom and Beh..		3
SA 223	Oral Communication		3		ED 200	Social Studies/Multicultural Ed.		3
PH 132	General Psychology		3		_____	Elective		3
_____	Elective		3					
	TOTAL		18			TOTAL		15

Junior Year (30)

ED 302	Teaching Practicum/Technology		3		PH 336	Educational Psychology		3
ED 348	Foundations of Education		3		HI 328	Mississippi History		3
PH 347	Measurement Evaluation		3		PH 326	Psychology of the Except. Child		3
_____	Elective		3		GR 318	World Geography		3
SS 375	Research Methods		3		HI 448	Africa Since Independence		3
	TOTAL		15			TOTAL		15

Senior Year (27)

HI 460	Twentieth Century World History		3		ED 468	Directed Teaching		12
ED 498	Reading in the Secondary School		3					
_____	Elective		3					
SS 476	Social Science Seminar		3					
HI 422	Historiography		3					
	TOTAL		15			TOTAL		12

It is suggested, but not required, that Social Science Education majors choose electives from the courses listed below:

HI 432	History of Europe Part I	HI 430	Recent American History
SY 408	The Family	HI 433	History of Europe Part II
SP 111	Spanish I	SS 333	Introduction to Logic
		SP 112	Spanish II

The specific requirements for a teaching concentration in history include the successful completion of twenty-one (21) hours of required courses for all Social Science Education and History majors and fifteen (15) hours of 300-400 level history courses with a grade of "C" or better. (See *Course Descriptions in History* at the end of this section). Students wishing to obtain a license to teach social science at the secondary education level are expected to pass the following courses in the teaching concentration of the History Program with a "C" or better in EN 111, EN 112, SA 223, and PH 132, and have an overall grade point average (G.P.A.) of 2.50. In addition, students must also successfully complete all social science courses with a grade of "C" or better, meet the requirements of the Department of Social Sciences, and pass the Social Sciences Exit Examination, Praxis I, and Praxis II examinations.

History Major (120 Credit Hours)

Freshman Year (30)								
First Semester	Class		Hrs.		Second Semester	Class		Hrs.
EN 111	Composition I		3		EN 112	Composition II		3
BI 111	Intro to Biology I		3		PY 111	Physical Science I		3
HI 111	World Civilization		3		HI 112	World Civilization II		3
MA 121	College Algebra		3		GT 101	American Government		3
PE 101	Physical Education		1		CS 100	Intro. to Computers		1

UL 101	University Life		<u>1</u>		AR 214	Art Appreciation		<u>3</u>
	TOTAL		14			TOTAL		16
Sophomore Year (30)								
EN 213	Studies in Literature		3		HU 201	Humanities		3
SP 111	Spanish I		3		SP 112	Spanish II		
HI 225	United States History I		3		HI 226	United States History II		3
EC 201	Principles of Economics I		3		SY 235	General Sociology		3
SA 223	Oral Communication		<u>3</u>		GT 102	American Government II		<u>3</u>
	TOTAL		15			TOTAL		15
Junior Year (30)								
HI 326	The Old South		3		HI 328	Mississippi History		3
HI 347	The Civil War & Reconstruction				HI 372	African American History II		3
HI 371	African American History I		3		GR 318	World Geography		3
SS375	Research Methods		3		EN 352	Research Writing		3
GT 313	State & Local Government		<u>3</u>		GT 318	Comparative Government		<u>3</u>
	TOTAL		15			TOTAL		15
Senior Year (30)								
HI 422	Historiography		3		HI 430	Recent American History		3
HI 447	History of Africa I		3		HI 448	History of Africa II		3
HI 460	20th Century World		3		SS 476	Social Science Seminar		3
GT 421	Congress and the Presidency		3		GT 400	Politics of Afro-Americans		3
GT 445	International Relations		<u>3</u>		GT 420	Problems in American Politics		<u>3</u>
	TOTAL		15			TOTAL		15

It is suggested that History majors choose 300-400 level Social Sciences Electives from any Social Sciences major.

The specific requirements for a non-teaching concentration in history include the successful completion of twelve (12) hours of history core courses and forty (4) hours of 300-400 level history courses with a grade of “C” or better. (See Course Descriptions in History below). Students must also complete all specified social sciences courses with a grade of “C” or better to meet the requirements of the Department of Social Sciences and pass the Social Sciences Exit Examination. Students are encouraged to follow the sequential arrangement of the curriculum for a major with a non-teaching emphasis if possible.

POLITICAL SCIENCE

The Political Science curriculum is designed for students who seek the Bachelor of Arts degree with a major in political science. It serves the student who wishes to acquire an organized body of knowledge about government and politics before entering various fields of employment such as government service, law, teaching, mass media, and private enterprises.

Students majoring in political science must complete 122 semester hours of coursework in the field with a grade of “C” or better to graduate. A minimum of twenty-seven (27) hours in political science (GT) and nine (9) hours in social science (SS 375, SS 446, and SS 476) must be taken. It is the students’ responsibility to take these courses in sequence. In addition, students majoring in political science must pass the Exit Examination that is offered by the department in *November and/or March. The examination has two parts: Part I consists of standardized questions.

It tests the student's knowledge of the various areas of his/her studies, namely, Government, American History and World Civilizations, General Sociology, and Economics. Part II contains essay questions that test the student's mastery of his/her major field. Passing grade is seventy (70) points out of one hundred (100).

*Dates of examination will be announced by the Department of Social Sciences.

Political Science Major (120 Credit Hours)

Freshman Year (30)							
First Semester	Class		Hrs.		Second Semester	Class	Hrs.
EN 111	Composition I		3		EN 112	Composition II	3
BI 111	Intro to Biology I		3		PY 111	Physical Science I	3
HI 111	World Civilization		3		GT 102	American Government	3
MA 121	College Algebra		3		HI 112	World Civilization II	3
GT 101	American Government		3		CS 100	Intro. to Computers	1
_____	Elective		<u>1</u>		_____	Elective	<u>1</u>
	TOTAL		16			TOTAL	14
Sophomore Year (30)							
EN 213	Studies in Literature		3		AR 214	Art Appreciation	3
EC 201	Principles of Economics I		3		EN 316	Advanced Composition	3
BA 226	Intro. to Small Business Development		3		SY 235	General Sociology	3
_____	Elective		3		_____	Elective	3
HI 225	United States History I		<u>3</u>		SA 223	Oral Communication	<u>3</u>
	TOTAL		15			TOTAL	15
Junior Year (30)							
GT 313	State Local Govt.		3		GT 423	Public Policy Analysis	3
GT 347	Political Theory		3		GT 420	Problems in American Politics	3
GT 322	Constitutional Law I		3		GT 327	Judicial Process	3
SS 333	Intro. to Logic		3		GT 332	Constitutional Law II	3
SS 307	Statistical Methods		<u>3</u>		GT 340	Pre-Law Seminar	<u>3</u>
	TOTAL		15			TOTAL	15
Senior Year (30)							
GT 421	Congress the Presidency		3		GT 400	Politics of Afro-Americans	3
GT 321	Public Administration		3		GT 442	Intro. to International Law	3
GT 445	International Relations		3		GT 318	Comparative Government	3
SS 375	Research Methods		3		SS 476	Social Science Seminar	3
_____	Elective		<u>3</u>		SS 347	Organizational Theory	<u>3</u>
	TOTAL		15			TOTAL	15

Suggested Electives

SS 397	Ethics	CJ 415	Criminal Justice Procedure
SS 473	Social Science Internship	CJ 418	Law and Society
SY 335	Juvenile Delinquency		

PRE-LAW

Students concentrating in pre-law with a major in Political Science must complete 120 semester hours of coursework in the field with a grade of “C” or better are required to complete the following courses: GT 327 Judicial Process, GT 340 Pre-Law Seminar, GT 332 Constitutional Law II, GT 442 Introduction to International Law, and EN 316 Advance Composition to graduate. In addition, they are required to complete the following program of study.

Pre-Law Major (120 Credit Hours)

Freshman Year (29)							
First Semester	Class		Hrs.		Second Semester	Class	Hrs.
EN 111	Composition I		3		EN 112	Composition II	3
HI 111	World Civilization		3		HI 112	World Civilization II	3
BI 111	Intro. to Biology		3		PY 111	Physical Science I	3
GT 101	American Government		3		GT 102	American Government	3
MA 121	College Algebra		3		ND 101	Health and Wellness	1
UL 101	University Life		1				
	TOTAL		16		TOTAL		13
Sophomore Year (31)							
EN 213	Studies in Literature		3		AR 214	Art Appreciation	3
HI 225	United States History I		3		EN 316	Advanced Composition	3
EC 201	Principles of Economics I		3		SY 235	General Sociology	3
BA 233	Business Comp. App.		3		CS 100	Intro. to Computers	1
SP 111	Spanish I		3		SP 112	Spanish II	3
					SA 223	Oral Communication	3
	TOTAL		15		TOTAL		16
Junior Year (30)							
GT 322	Constitutional Law I		3		GT 332	Constitutional Law II	3
GT 347	Political Theory		3		GT 327	Judicial Process	3
GT 313	State Local Govt.		3		GT 340	Pre-Law Seminar	3
SS 333	Intro. to Logic		3		_____	Elective	3
SS 307	Statistical Methods		3		_____	Elective	3
	TOTAL		15		TOTAL		15
Senior Year (30)							
GT 445	International Relations		3		GT 347	Organizational Theory	3
GT 421	Congress the Presidency		3		GT 321	Public Administration	3
GT 400	Politics of African Americans		3		SS 476	Social Science Seminar	3
SS 375	Research Methods		3		GT 442	Intro. to International Law	3
_____	Elective		3		GT 318	Comparative Government	3
	TOTAL		15		TOTAL		15

Suggested Elective Courses

CJ 415 Criminal Justice Procedure
 CJ 418 Law and Society
 GT 323 Public Policy

SS 397 Ethics
 SS 473 Social Science Internship
 SY 335 Juvenile Delinquency

SOCIOLOGY

A student who completes the sociology program will be able to pursue a wide range of occupations in different institutional settings. These include such jobs as researcher, child-care worker, juvenile delinquent counselor, probation officer, substance abuse counselor, mental health worker, and group home worker, etc. The student is required to complete all major courses with a grade of “C” or better. These courses are identified by the SY, SW, or SS code. In order to be placed in an internship, it is important that students complete all requirements through the first semester of the senior year as presented in the curriculum.

Sociology (120 Credit Hours)

Freshman Year (30)							
First Semester	Class		Hrs.		Second Semester	Class	Hrs.
EN 111	Composition I		3		EN 112	Composition II	3
BI 111	Intro to Biology I		3		BI 113	Intro. to Environ. Biology/Ecology	3
UL 101	University Life		1		MA 121	College Algebra	3
GT 101	American Government		3		PE 201	Physical Education	1
SY 235	General Sociology		3		_____	Elective (Creative Arts)	3
PE 101	Physical Education		1				
MS 101	or Intro. to the Army						
	TOTAL		14			TOTAL	13
Sophomore Year (33)							
SA 223	Oral Communication		3		EN 213	Studies in Literature	3
SP 111	Spanish I		3		SP 112	Spanish II	3
EC 201	Principles of Economics I		3		SY 330	Social Psychology	3
SY 335	Juvenile Delinquency		3		HI 226	United States History II	3
PH 132	General Psychology		3		SY 301	Rural Sociology	3
					_____	Elective	3
	TOTAL		15			TOTAL	18
Junior Year (30)							
SS 375	Research Methods		3		SY 399	Sociological Theory	3
_____	Elective		3		SY 419	Criminology	3
SY 349	Sociology of Poverty		3		SY 417	Modern Social Problems	3
SS 307	Statistics		3		SY 408	The Family	3
_____	Elective		3		_____	Elective	3
					_____	Elective	3
	TOTAL		15			TOTAL	18
Senior Year (27)							
SY 428	The Community		3		SS 476	Social Science Seminar	3
SY 346	Aging and Society		3		SS 473	Social Science Internship	6

SY 365	Racial and Cultural Min		3		Elective		<u>3</u>
SY 429	Afro-American Family		3				
	Elective		<u>3</u>				
	TOTAL		15		TOTAL		12

Suggested Electives

SY 361 Cultural Anthropology PH 371 Abnormal Psychology
SY 367 Drugs, Alcohol, and Society PH 132 General Psychology

DEPARTMENT OF SOCIAL WORK

Dorothy A. Idleburg, Ph.D., Chair

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SOCIAL WORK

The Department of Social Work is designed to prepare students for entry level social work positions as generalist practitioners as well as make them ready for graduate programs. The Social Work curriculum includes one hundred twenty (120) semester credit hours of course work and field practicum. The curriculum consists of general education requirements, scheduled generally in the freshman and sophomore years; and the major courses, completed in the junior and senior years of study.

The curriculum consists of forty-four (44) hours of general education core requirements. The professional curriculum consists of seventy-six (76) semester credit hours in eight basic Social Work curricular content areas: Social Work Values and Ethics; Diversity; Social and Economic Justice; Populations-at- Risk; Human Behavior in the Social Environment; Social Welfare Policy and Services; Social Work Practice; and Research. The Program is accredited by the Council on Social Work Education. The Department of Social Work does not grant academic credit for life experience(s) or previous employment (including volunteer services).

Admission Requirements

1. Declaration of social work as a major,
2. Complete forty-four (44) credit hours in the general core curriculum;
3. A minimum cumulative GPA of 2.00 on a scale of 4.00;
4. Completion of SW 230, Introduction to Social Work;
5. Demonstration of an interest in and an aptitude for a career in social work;
6. Submission of social work admission application along with a personal statement of goals, two reference letters and completion of a successful interview with the social work admission committee and;
7. Background Check.
8. TB test for internship

Graduation Requirements

A student pursuing a degree in the Social Work Curriculum must be accepted into the social work program; complete all major courses with a grade of “C” or better; meet the requirements of the Department of Social Work, pass the Social Work Comprehensive Examination, and Social Work Internship. Students are encouraged to follow the sequential arrangement of the curriculum for a major in social work. Consequently, students are strongly encouraged to remain in close contact with their departmental program advisor. The minimum number of hours required for graduation for a Bachelor of Social Work degree is 120 credit hours.

Social Work (120 Credit Hours)

Freshman Year (30)							
First Semester	Class		Hrs.		Second Semester	Class	Hrs.
EN 111	Composition I		3		EN 112	Composition II	3
BI 111	Intro. to Biology I		3		BI 113	Intro. to Environ. Biology	3
GT 101	American Government		3		BI 113L	Intro. to Environ. Biology Lab	1
MA 121	College Algebra		3		HI 112	World Civilization II	3
PE 101	Physical Education or		1		AR 214	Art Appreciation	3
MS 101	Intro. to the Army						

UL 101	University Life		<u>1</u>		PE 201 MS 102	Physical Education or Foundations of Leadership		1
					CS 100	Intro. to Computers		1
					ND 101	Health and Wellness		<u>1</u>
	TOTAL		14			TOTAL		16

Sophomore Year (30)

EN 213	Studies in Literature		3		SP 112	Spanish II		3
SP 111	Spanish I		3		SY 235	General Sociology		3
SW 230	Intro. to Social Work		3		EC 202	Principles of Economics II		3
HI 226	United States History II		3		SW 302	Basic Issues in Mental Health		3
SA 223	Oral Communication		<u>3</u>		_____	Elective		<u>3</u>
	TOTAL		15			TOTAL		15

Junior Year (33)

SW 375	Research Methods in SW		3		SW 408	Marriage and the Family		3
SW 351	Social Work Practice I		3		SW 352	Social Work Practice II		3
SW 365	Cultural Diversity		3		SW 405	Social Welfare Policy Services		3
SW 319	Human Behavior- The Social Environment I		3		SW 362	Skills in Interviewing		3
SS 307	Statistical Methods		<u>3</u>		SW 320	Human Behavior and Social Environment II		3
					SW 360	Community Social Work Practice		<u>3</u>
	TOTAL		15			TOTAL		18

Senior Year (27)

SW 346	Social Work for the Aging		3		SW 448	Special Topics Professional Development in SW		3
SW 397	Ethics and the Social Work Profession		3		SW 475	Social Work Field Practice Seminar		3
SW 348	Child Welfare		3		SW 473	Social Work Internship		<u>6</u>
SW 412	Case Management		3					
_____	Elective		<u>3</u>					
	TOTAL		15			TOTAL		12

Suggested Electives

SW 349	Child Welfare Worker and Court	SY 301	Rural Sociology
SW 409	Mental Health Seminar	SW 367	Drugs, Alcohol, and Society
SW 419	Social Work in Corrections	PH 417	Abnormal Psychology
SW 300	Child Advocacy Studies	SW 429	Social Work Practice with Black Family



SCHOOL OF BUSINESS

SCHOOL OF BUSINESS

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GENERAL INFORMATION

The School of Business offers the undergraduate Bachelor of Science degree in both Accounting and Business Administration. The School also offers the Master of Business Administration (MBA) degree. All programs of the School of Business are accredited by the Accreditation Council for Business Schools and Programs (ACBSP). The details of the MBA program are contained in the School of Graduate Studies section of this catalog.

The pace of business, both nationally and globally, creates an unprecedented demand for well-prepared business school graduates. The competition among employers for highly skilled graduates is intense and increasing. However, business employers demand a wider range of knowledge, skills and abilities from today's graduates. Employers expect today's business school graduates to make immediate and valuable contributions to their companies. In addition to technical competence in the traditional areas of business, students today must possess leadership ability, the ability to work in and lead multi-functional teams, high-level oral and written communication proficiency, and a high level of competence in a broad range of information technology skills.

The business administration degree prepares graduates to enter the fast paced, technology-driven workplace at the appropriate level of competency, responsibility, and compensation, or to continue their education in graduate or professional school. The breadth of Business Electives in the curriculum allows students wide latitude in customizing a business degree tailored to meet their specific career goals and objectives. Early meaningful contact between BSBA students and School of Business faculty is an important element of timely graduation and career goal fulfillment.

Mission

The School of Business strives to prepare graduates who will be well-rounded future leaders of high character who will be competitive in the global marketplace of the 21st century.

Program Goals

- Students completing the Undergraduate program will be:
- Knowledgeable in functional areas of business
- Effective communicators (oral and written)
- Critical analytical thinkers
- Integrative thinkers

Student Activities

Business students with junior standing and an overall GPA above 3.25 are eligible for membership in Delta Mu Delta National Honor Society. Other organizations that students may participate are Entrepreneurial Action in US (ENACTUS), the National Association of Black Accountants (NABA), and student membership in the Institute of Management Accountants.

School of Business Undergraduate Program Information

Students declaring a major in one of the undergraduate degrees offered by the Alcorn School of Business (ASB) are assigned an ASB faculty advisor upon initial enrollment in the University. Declared ASB majors are required to receive formal academic advising from their assigned ASB advisor prior to registering for any course in any subsequent semester. To assure each student's successful academic performance as well as progress towards degree, ASB implements mandatory, faculty-student academic advising.

Thus, early meaningful contact between ASB students and ASB faculty are important established systems to ensure the building of rich faculty-student relationships, rigorous course completion, and robust retention.

Prior to enrolling in any upper division business course (300 and 400 level), students pursuing a degree offered by the School of Business must complete the following requirements:

- Must complete all University College requirements,
- Must be advised by the University College advisor,
- Preferably have a minimum overall grade point average of 2.50
- Must have a minimum grade of “C” or better in each of the following courses:

English 111, English 112, Math 121, Math 223, Accounting 213, Accounting 214, Principles of Economics I 201, Principles of Economics II 202, and Speech Arts 223. Students not yet released from the University College who wish to enroll in any upper division business course must have the written permission of the Chair for undergraduate programs or their academic advisor.

Requirements for School of Business Degree

1. Complete the University's General Education Core.
2. Restricted Electives¹
3. Restricted Business Core
4. Complete the School of Business Degree Specific Courses
5. At least 50 percent of the business credit hours required for the business degree must be earned at Alcorn State University
6. Student must earn a "C" or better in all business core and major courses

¹Restricted Electives should be completed in the lower division, i.e., at the 100 or 200 level. All electives must be approved by the student’s ASB faculty advisor.

Students who pursue a double “major” in Accounting and Business Administration must fulfill requirements for both majors (entire curriculum), without using the same classes for ‘major’ requirements.

Dress Code

Students in the School of Business are expected to dress neatly at all times. The continuous demonstration of appropriate manners and dress insures that Alcorn School of Business students meet the very minimum standards of quality achievement in the social, physical, and educational aspects of their lives-essential areas of development necessary for propelling students towards successful careers.

Examples of inappropriate dress and/or appearance:

- Head coverings and hoods for men
- Bare feet
- Revealing clothing (clothing that shows underwear).
- Clothing with derogatory and/or offensive message, either in words or pictures.
-

First and Second Year Schedules

Students planning to obtain a degree from the School of Business should take courses in the sequence on the Freshman and Sophomore Curriculum. Deviations from this schedule can result in delayed release from the University College, delays in taking upper division business courses, and ultimately delayed graduation.

All electives taken by the student, both business and unrestricted, require prior approval by the student’s assigned School of Business faculty advisor.

Bachelor of Science in Accounting

Continued expansion at companies nationwide is creating strong demand for properly prepared accounting graduates. Businesses are seeking accountants at all levels that can provide the support and analysis required to accomplish their firms’ strategic initiatives. Accountants are becoming more involved in project teams throughout their organizations, from groups that help determine new technology requirements to those focused on cost-cutting measures. This trend has intensified the need for not only a solid foundation in accounting, but also strong leadership, problem-solving, and written and verbal communication skills.

Competition between businesses for accounting graduates is intense and increasing. Career progression to senior level positions such as Chief Financial Officer, Vice President of Finance, Chief Executive Officer, Treasurer and Corporate Controller can be achieved. The purpose of the undergraduate professional accounting program is to prepare our students for entry level professional positions in either the public or private sectors. A graduate degree has become increasingly important for entry into or progression beyond most entry level accounting positions. Accordingly, the accounting degree program places strong emphasis on preparing our students for graduate school.

While our accounting graduates are prepared for the many available entry-level professional positions in both industry and government, our curriculum's primary emphasis is on preparing graduates for entry into the public accounting profession via graduate education.

Bachelor of Science Degree in Accounting (120 Credit Hours)

Freshman Year (31)							
First Semester	Class		Hrs.		Second Semester	Class	Hrs.
BA 111	Introduction to Business		3		BA 152	Personal Finance	3
					BA 233	Business Computer Appli. II	3
BA 133	Business Computer Appli. I		3		BI 111	Introduction to Biology I	3
EN 111	Composition I		3		EN 112	Composition II	3
MA 121	College Algebra		3		SA 223	Oral Communications	3
PY 111	Physical Science		<u>3</u>				
UL 101	University Life		<u>1</u>				
	TOTAL		16		TOTAL		15
Sophomore Year (31)							
AC 213	Financial Accounting		3		AC 214	Managerial Accounting	3
EC 201	Principles of Economics I		3		EC 202	Principles of Economics II	3
BA 237	Legal Environment of Business		3		BA 239	Business Ethics	3
MA 223	Intro. Math Analysis		3		BA 292	Business Statistics	3
BA 201	Professional Dev. I		1		_____	Unrestricted Elective	<u>3</u>
AR 214, MU 213	Restricted Elective		<u>3</u>				
	TOTAL		16		TOTAL		15

Junior Year (30)							
AC 315	Intermediate Accounting I		3		AC 316	Intermediate Accounting II	3
AC 385	Income Tax Accounting I		3		AC 355	Cost Accounting	3
					AC 356	Non-Profit -Accounting	3
MK 301	Principles of Marketing		3		FI 301	Principles of Finance	3
MG 301	Principles of Management		3		_____	Restricted Elective	<u>3</u>
BA 355	Business Research Methods		<u>3</u>				

	TOTAL		15		TOTAL		15
Senior Year (28)							
BA 437	Business Law		3		BA 499	Bus. Admin. Seminar	1
BA 303	International Business		3		MG 496	Strategic Management	3
AC 338	Accounting Information Systems		3		AC 428	Advanced Accounting II	3
AC 427	Advanced Accounting I		3		AC 478	Auditing	3
BA 376	Business Communication		<u>3</u>		_____	Restricted Elective	<u>3</u>
	TOTAL		15		TOTAL		13

Bachelor of Science in Business Administration

The Bachelor of Science degree in Business Administration provides a foundation in the major functional areas of business, technology, communication, and critical thinking required for entry level positions in business, industry, and government concentrations areas with the Business Administration degree include:

- Accounting
- Data Analytics
- Entrepreneurship
- Finance
- Human Resources
- Marketing
- Supply Chain and Logistics

Bachelor of Science in Business Administration (120 Credit Hours)

Freshman Year (31)							
First Semester	Class		Hrs.		Second Semester	Class	Hrs.
BA 133	Business Computer Appli. I		3		BA 152	Personal Finance	3
EN 111	Composition I		3		SA 223	Oral Communication	3
BA 111	Introduction to Business		3		BI 111	Introduction to Biology I	3
MA 121	College Algebra		3		EN 112	Composition II	3
PY 111	Physical Science		3		BA 233	Bus. Computer Appl. II	<u>3</u>
UL 101	University Life		<u>1</u>				
	TOTAL		16		TOTAL		15

Sophomore Year (31)							
AC 213	Financial Accounting		3		AC 214	Managerial Accounting	3
EC 201	Principles of Economics I		3		EC 202	Principles of Economics II	3
BA 237	Legal Environment of Business		3		BA 239	Business Ethics	3
MA 223	Intro. Math Analysis		3		BA 292	Business Statistics	3
BA 201	Professional Dev. I		1			Unrestricted Elective	<u>3</u>
AR 214, MU 213	Restricted Elective		<u>3</u>				
	TOTAL		16		TOTAL		15
Junior Year (30)							

				FI 409	Financial Management		3
BA 355	Business Research Methods	3		MG 320	Organizational Behavior		3
MK 301	Principles of Marketing	3		MG 378	Entrepreneurship		3
MG 301	Principles of Management	3		300/400	Restricted Business Elective I		3
FI 301	Principles of Finance	3		300/400	Restricted Business Elective II		3
BA 376	Business Communications	3					
	TOTAL	15			TOTAL		15
Senior Year (28)							
BA 303	International Business	3		BA 499	Business Adm. Seminar		1
MG 401	Production Management	3		MG 496	Strategic Management		3
300/400	Restr. Business Elective II	3		BA 433	Business Information System		3
300/400	Restr. Business Elective III	3		MK 483	Consumer Behavior		3
300/400	Restr. Business Elective IV	3		300/400	Restricted Business Elective V		3
	TOTAL	15			TOTAL		13

Bachelor of Science Degree in Business Administration: Accounting Concentration (120 Credit Hours)

This curriculum is designed to provide the fundamental concepts in Accounting.

Freshman Year (31)							
First Semester	Class	Hrs.		Second Semester	Class	Hrs.	
PY 111	Physical Science I	3		BI 111	Introduction to Biology I	3	
BA 111	Introduction to Business	3		BA 152	Personal Finance	3	
BA 133	Bus. Comp. Applic. I	3		SA 223	Oral Communication	3	
MA 121	College Algebra	3		EN 112	Composition II	3	
EN 111	Composition I	3		BA 233	Bus. Computer Appl. II	3	
UL 101	University Life	1					
	TOTAL	16			TOTAL	15	

Sophomore Year (31)							
AC 213	Financial Accounting	3		AC 214	Managerial Accounting	3	
EC 201	Principles of Economics I	3		EC 202	Principles of Economics II	3	
BA 237	Legal Environment of Business	3		BA 239	Business Ethics	3	
MA 223	Intro. Math Analysis	3		BA 292	Business Statistics	3	
BA 201	Professional Dev. I	1		_____	Unrestricted Elective	3	
AR 214, MU 213	Restricted Elective	3					
	TOTAL	16			TOTAL	15	
Junior Year (30)							
				MG 320	Organization Behavior	3	
BA 355	Business Research Methods	3		FI 409	Financial Management	3	

MK 301	Principles of Marketing		3		MG 378	Entrepreneurship		3
MG 301	Principles of Management		3		AC 316	Intermediate Accounting II		3
FI 301	Principles of Finance		3		AC 300/400	Restricted Electives		<u>3</u>
AC 315	Intermediate Accounting I		<u>3</u>					
	TOTAL		15			TOTAL		15

Senior Year (28)

BA 303	International Business		3		BA 499	Business Adm. Seminar		1
BA 376	Business Communications		3		MG 496	Strategic Management		3
MG 401	Production Management		3		MK 483	Consumer Behavior		3
AC 427	Advanced Accounting I		3		BA 433	Business Information Systems		3
AC 300/400	Restricted Electives		<u>3</u>		300/400	Restricted. Business Elective		<u>3</u>
	TOTAL		15			TOTAL		13

Accounting Electives include AC 355, AC 356, AC 385, AC 386, AC 408, AC 478. Please see advisor before selection.

Bachelor of Science Degree in Business Administration: Data Analytics Concentration (120 Credit Hours)

This curriculum is designed to provide the fundamental concepts in Data Analytics.

Freshman Year (31)

First Semester	Class		Hrs.		Second Semester	Class		Hrs.
PY 111	Physical Science I		3		BI 111	Introduction to Biology I		3
BA 111	Introduction to Business		3		BA 152	Personal Finance		3
BA 133	Bus. Comp. Applic. I		3		SA 223	Oral Communication		3
MA 121	College Algebra		3		EN 112	Composition II		3
EN 111	Composition I		3		BA 233	Bus. Computer Appl. II		<u>3</u>
UL 101	University Life		<u>1</u>					
	TOTAL		16			TOTAL		15

Sophomore Year (31)

AC 213	Financial Accounting		3		AC 214	Managerial Accounting		3
EC 201	Principles of Economics I		3		EC 202	Principles of Economics II		3
BA 237	Legal Environment of Business		3		BA 239	Business Ethics		3
MA 223	Intro. Math Analysis		3		BA 292	Business Statistics		3
BA 201	Professional Dev. I		1		_____	Unrestricted Elective		<u>3</u>
AR 214, MU 213	Restricted Elective		<u>3</u>					
	TOTAL		16			TOTAL		15

Junior Year (30)

					BA 302	Introduction to Data Analytics		3
BA 355	Business Research Methods		3		MG 320	Organizational Behavior		3
MK 301	Principles of Marketing		3		MG 378	Entrepreneurship		3
MG 301	Principles of Management		3		CS 360	Software Engr. Principles		3

FI 301	Principles of Finance		3		FI 409	Financial Management		<u>3</u>
BA 376	Business Communications		<u>3</u>					
	TOTAL		15			TOTAL		15
Senior Year (28)								
BA 303	International Business		3		BA 499	Business Adm. Seminar		1
MG 401	Production Management		3		MG 496	Strategic Management		3
CS 420	Database Systems		3		MK 483	Consumer Behavior		3
300/400	Restricted Elective		3		BA 433	Business Information Systems		3
300/400	Restricted Elective		<u>3</u>		_____	Restricted Elective		<u>3</u>
	TOTAL		15			TOTAL		13

Data Analytics Electives include AC 338, BA 437, CS 203, MG 409. Please see advisor before selection.

Bachelor of Science Degree in Business Administration: Entrepreneurship Concentration (120 Credit Hours)

This curriculum is designed to provide the fundamental concepts in Entrepreneurship.

Freshman Year (31)								
First Semester	Class		Hrs.		Second Semester	Class		Hrs.
PY 111	Physical Science I		3		BA 111	Introduction to Biology I		3
BA 111	Introduction to Business		3		BA 152	Personal Finance		3
BA 133	Bus. Comp. Applic. I		3		SA 223	Oral Communication		3
MA 121	College Algebra		3		EN 112	Composition II		3

EN 111	Composition I		3		BA 233	Bus. Computer Appl. II		3
UL 101	University Life		<u>1</u>					
	TOTAL		16			TOTAL		15

Sophomore Year (31)

AC 213	Financial Accounting		3		AC 214	Managerial Accounting		3
EC 201	Principles of Economics I		3		EC 202	Principles of Economics II		3
BA 237	Legal Environment of Business		3		BA 239	Business Ethics		3
MA 223	Intro. Math Analysis		3		BA 292	Business Statistics		3
BA 201	Professional Dev. I		1		_____	Unrestricted Elective		<u>3</u>
AR 214, MU 213	Restricted Elective		<u>3</u>					
	TOTAL		16			TOTAL		15

Junior Year (30)

					300/400	Restricted Business Elective		3
BA 355	Business Research Methods		3		MG 320	Organizational Behavior		3
MK 301	Principles of Marketing		3		MG 378	Entrepreneurship		3
MG 301	Principles of Management		3		MG 457	Entrepreneurship & Small Bus. Mgt.		3
FI 301	Principles of Finance		3		FI 409	Financial Management		<u>3</u>
BA 376	Business Communication		<u>3</u>					
	TOTAL		15			TOTAL		15

Senior Year (28)

BA 303	International Business		3		BA 499	Business Adm. Seminar		1
MG 403	Creativity and Innovation		3		MG 496	Strategic Management		3
MG 401	Production Management		3		MK 483	Consumer Behavior		3
300/400	Restricted Entrep. Elective		3		BA 433	Business Information Systems		3
300/400	Restricted Entrep. Elective		<u>3</u>		MG 480	Entrepreneurship Capstone		<u>3</u>
	TOTAL		15			TOTAL		13

Entrepreneurship Electives include: AC 338, AC 356, BA 403, BA 492, MG 388, MK 303, MK 477, MK 490. Please see advisor before selection.

Bachelor of Science Degree in Business Administration: Finance Concentration (120 Credit Hours)

This curriculum is designed to provide the fundamental concepts in Finance.

Freshman Year (31)								
First Semester	Class		Hrs.		Second Semester	Class		Hrs.
PY 111	Physical Science I		3		BI 111	Introduction of Biology I		3
BA 111	Introduction to Business		3		BA 152	Personal Finance		3

BA 133	Bus. Comp. Applic. I		3		SA 223	Oral Communication		3
MA 121	College Algebra		3		EN 112	Composition II		3
EN 111	Composition I		3		BA 233	Bus. Computer Appl. II		<u>3</u>
UL 101	University Life		<u>1</u>					

	TOTAL		16		TOTAL		15
Sophomore Year (31)							
AC 213	Financial Accounting		3		AC 214	Managerial Accounting	3
EC 201	Principles of Economics I		3		EC 202	Principles of Economics II	3
BA 237	Legal Environment of Business		3		BA 239	Business Ethics	3
MA 223	Intro. Math Analysis		3		BA 292	Business Statistics	3
BA 201	Professional Dev. I		1		_____	Unrestricted Elective	<u>3</u>
AR 214, MU 213	Restricted Elective		<u>3</u>				
	TOTAL		16		TOTAL		15
Junior Year (30)							
					300/400	Restricted Business Elective	3
BA 355	Business Research Methods		3		MG 320	Organizational Behavior	3
MK 301	Principles of Marketing		3		MG 378	Entrepreneurship	3
MG 301	Principles of Management		3		FI 305	Financial Institutions	3
FI 301	Principles of Finance		3		FI 409	Financial Management	<u>3</u>
BA 376	Business Communication		<u>3</u>				
	TOTAL		15		TOTAL		15
Senior Year (28)							
BA 303	International Business		3		BA 499	Business Adm. Seminar	1
FI 425	Investments		3		MG 496	Strategic Management	3
MG 401	Production Management		3		MK 483	Consumer Behavior	3
FI 468	Real Estate Finance		3		BA 433	Business Information Systems	3
300/400	Restricted Elective		<u>3</u>		300/400	Restricted Elective	<u>3</u>
	TOTAL		15		TOTAL		13

Finance Electives include FI 321, FI 425, FI 451, FI 478, FI 480, FI 492, FI 495. Please see advisor before selection.

Bachelor of Science Degree in Business Administration: Human Resources Concentration (120 Credit Hours)

This curriculum is designed to provide the fundamental concepts in Human Resources.

Freshman Year (31)							
First Semester	Class		Hrs.		Second Semester	Class	Hrs.
PY 111	Physical Science I		3		BI 111	Introduction to Biology I	3
BA 111	Introduction to Business		3		BA 152	Personal Finance	3
BA 133	Bus. Comp. Applic. I		3		SA 223	Oral Communication	3
MA 121	College Algebra		3		EN 112	Composition II	3
EN 111	Composition I		3		BA 233	Bus. Computer Appl. II	3
UL 101	University Life		1				
	TOTAL		16		TOTAL		15
Sophomore Year (31)							
AC 213	Financial Accounting		3		AC 214	Managerial Accounting	3
EC 201	Principles of Economics I		3		EC 202	Principles of Economics II	3
BA 237	Legal Environment of Business		3		BA 239	Business Ethics	3
MA 223	Intro. Math Analysis		3		BA 292	Business Statistics	3
BA 201	Professional Dev. I		1		-----	Unrestricted Elective	3
AR 214, MU 213	Restricted Elective		3				
	TOTAL		16		TOTAL		15
Junior Year (30)							
					300/400	Restricted Business Elective	3
BA 355	Business Research Methods		3		MG 320	Organizational Behavior	3
MK 301	Principles of Marketing		3		MG 378	Entrepreneurship	3
MG 301	Principles of Management		3		MG 388	Human Resource Management	3
FI 301	Principles of Finance		3		FI 409	Financial Management	3
BA 376	Business Communication		3				
	TOTAL		15		TOTAL		15
Senior Year (28)							
BA 303	International Business		3		BA 499	Business Adm. Seminar	1
MG410	Employee Rela & Coll Bargain		3		MG 496	Strategic Management	3
MG 401	Production Management		3		MK 483	Consumer Behavior	3
MG 418	Compensation Admin.		3		BA 433	Business Information Systems	3
300/400	HR Restricted Elective		3		300/400	HR Restricted Elective	3
	TOTAL		15		TOTAL		13

Human Resources (HR) Electives include: BA 400, BA 492, MG 421, MG 492. Please see your advisor before selection.

Bachelor of Science Degree in Business Administration: Marketing Concentration (120 Credit Hours)

This curriculum is designed to provide the fundamental concepts in Marketing.

Freshman Year (31)							
First Semester	Class	Hrs.		Second Semester	Class	Hrs.	
PY 111	Physical Science I	3		BI 111	Introduction to Biology I	3	
BA 111	Introduction to Business	3		BA 152	Personal Finance	3	
BA 133	Bus. Comp. Applic. I	3		SA 223	Oral Communication	3	
MA 121	College Algebra	3		EN 112	Composition II	3	
EN 111	Composition I	3		BA 233	Bus. Computer Appl. II	3	
UL 101	University Life	1					
	TOTAL	16			TOTAL	15	
Sophomore Year (31)							
AC 213	Financial Accounting	3		AC 214	Managerial Accounting	3	
EC 201	Principles of Economics I	3		EC 202	Principles of Economics II	3	
BA 237	Legal Environment of Business	3		BA 239	Business Ethics	3	
MA 223	Intro. Math Analysis	3		BA 292	Business Statistics	3	
BA 201	Professional Dev. I	1		_____	Unrestricted Elective	3	
AR 214, MU 213	Restricted Elective	3					
	TOTAL	16			TOTAL	15	
Junior Year (30)							
				300/400	Restricted Business Elective	3	
BA 355	Business Research Methods	3		MG 320	Organizational Behavior	3	
MK 301	Principles of Marketing	3		MG 378	Entrepreneurship	3	
MG 301	Principles of Management	3		MK 303	International Marketing	3	
FI 301	Principles of Finance	3		FI 409	Financial Management	3	
_____	Restricted Elective	3					
	TOTAL	15			TOTAL	15	
Senior Year (28)							
BA 303	International Business	3		BA 499	Business Adm. Seminar	1	
BA 376	Business Communications	3		MG 496	Strategic Management	3	
MG 401	Production Management	3		MK 483	Consumer Behavior	3	
MK 477	Marketing Management	3		BA 433	Business Information Systems	3	
MK 376	Digital Marketing	3		300/400	Restricted Marketing Elective	3	
	TOTAL	15			TOTAL	13	

Marketing electives include MK 315, MK 325, MK 336, MK 490, MK 495. Please see advisor before selection.

**Bachelor of Science Degree in Business Administration: Supply Chain and Logistics Concentration
(120 Credit Hours)**

This curriculum is designed to provide the fundamental concepts in Supply Chain and Logistics.

Freshman Year (31)							
First Semester	Class	Hrs.		Second Semester	Class	Hrs.	
PY 111	Physical Science I	3		BI 111	Introduction to Biology I	3	
BA 111	Introduction to Business	3		BA 152	Personal Finance	3	
BA 133	Bus. Comp. Applic. I	3		SA 223	Oral Communication	3	
MA 121	College Algebra	3		EN 112	Composition II	3	
EN 111	Composition I	3		BA 233	Bus. Computer Appl. II	3	
UL 101	University Life	1					
	TOTAL	16			TOTAL	15	
Sophomore Year (31)							
AC 213	Financial Accounting	3		AC 214	Managerial Accounting	3	
EC 201	Principles of Economics I	3		EC 202	Principles of Economics II	3	
BA 237	Legal Environment of Business	3		BA 239	Business Ethics	3	
MA 223	Intro. Math Analysis	3		BA 292	Business Statistics	3	
BA 201	Professional Dev. I	1		_____	Unrestricted Elective	3	
AR 214, MU 213	Restricted Elective	3					
	TOTAL	16			TOTAL	15	
Junior Year (30)							
				FI 409	Financial Management	3	
BA 355	Business Research Methods	3		MG 320	Organizational Behavior	3	
MK 301	Principles of Marketing	3		MG 378	Entrepreneurship	3	
MG 301	Principles of Management	3		BA 489	Logistics/Transportation	3	
FI 301	Principles of Finance	3		_____	Restricted Elective	3	
BA 376	Business Communications	3					
	TOTAL	15			TOTAL	15	
Senior Year (28)							
BA 303	International Business	3		BA 499	Business Adm. Seminar	1	
BA 409	Quality Management	3		MG 496	Strategic Management	3	
MG 401	Production Management	3		MK 483	Consumer Behavior	3	
300/400	Supply Chain/Logistics Restricted Elective	3		BA 433	Business Information Systems	3	
300/400	Supply Chain/Logistics Restricted Elective	3		BA 496	Supply Chain/Logistics Capstone	3	
	TOTAL	15			TOTAL	13	

Supply Chain/Logistics Electives include: AC 355, BA 437, BA 488, BA 489, MG 409. See advisor before selection.



SCHOOL OF EDUCATION

• Department of Education and Psychology • Health, Physical Education and Recreation

SCHOOL OF EDUCATION AND PSYCHOLOGY

Malinda Butler, Acting Dean

Walter Washington Administration/Classroom Bldg., #401

Telephone: (601) 877-6141

Fax: (601) 877-6319

GENERAL INFORMATION

PURPOSE

The School of Education and Psychology holds as its primary commitment the preparation of highly qualified, proficient, and effective communiversity, elementary, and secondary school teachers, and other professional educational and counseling personnel. Our program completers serve in the public schools and communities of Mississippi, the region, and the nation. This broad responsibility is conceived and implemented in harmony with the over-all purposes and functions of the University. The School of Education and Psychology is accredited by the Council for the Accreditation of Educator Preparation (CAEP).

OBJECTIVES OF THE SCHOOL OF EDUCATION AND PSYCHOLOGY

Through its various curricula and services, the School endeavors to achieve these specific objectives:

1. to identify and attract young men and women of intellectual and moral integrity;
2. to promote content competency and sound scholarship through a series of specialized courses and experiences that will prepare proficient and effective communiversity teacher (APECT) and other professional school personnel;
3. to develop in prospective practitioners a broad understanding of the clients they are preparing to serve and the effective practices and process associated with the services they are prepared to provide;
4. to guide and supervise teacher candidates through a series of professional laboratory experiences culminating with directed teaching;
5. to provide teacher education candidates and non-teaching students with formal and informal educational experiences that will enable them to develop a meaningful philosophy of education;
6. to ensure that each teacher education candidate exits the professional education unit highly qualified as Alcorn's proficient and effective communiversity professional.

ORGANIZATION

The School of Education and Psychology consists of two distinct degree-granting departments. They are the Department of Education and Psychology and the Department of Health, Physical Education, and Recreation. In addition, the school is responsible for administering and coordinating professional laboratory experiences and directed teaching for the University.

DEGREE OFFERINGS

The School offers instruction leading to the Bachelor of Science degree in the following areas: Elementary Education; Recreation; Physical Education; Psychology; and, the Bachelor of Arts degree in General Studies. The School also offers graduate programs leading to the Master's degree in School Counseling, Elementary Education, Secondary Education, Sport Management, in addition to the Educational Specialist in Elementary Education.

POLICIES AND PROCEDURES FOR ADMISSION TO TEACHER EDUCATION

All students desiring to enter a professional teacher education program at Alcorn State University must take and pass PRAXIS Core Academic Skills for Educators and make formal application to be admitted to the teacher education program. Additionally, students must have completed 44 semester hours of course work with a minimum cumulative GPA of 2.75 on a 4.0 system.

Registration forms for the PRAXIS Exams may be initiated in the Counseling and Testing Center. An application for admission into teacher education must be submitted to the Teacher Education Office before the applicable deadlines. Each application must be accompanied by letters of recommendation from the student's advisor and departmental chairperson along with a current transcript. The Teacher Education Committee will take formal action on applications upon receiving evidence that the student has met the application deadlines and criteria for admission.

Regular Students

An application for admission to the Teacher Education Program should be filed no later than the fourth week of the semester in which the student will have earned at least 44 hours at Alcorn State University. Admission will be granted to those applicants meeting the following standards:

Each applicant must:

Successfully pass PRAXIS CORE (Reading, Writing and Math) or have a minimum ACT score of 21 or 990 on the SAT. Please note that this minimum score is subject to change based on MDE policies.

Have earned a cumulative grade point average of 2.75 in 44 semester hours of course work.

The applicant has earned no grade less than “C” in EN 111, EN 112, SA 223, and PH 132.

The applicant has been recommended by two faculty members.

Transfer Students

Transfer students from another institution who have earned less than 44 hours at that institution must meet the standards set for regular students.

Transfer students who have earned 44 or more credit hours of at another institution may apply to Teacher Education upon admission to Alcorn State University provided that they have met GPA and other admission requirements.

Students who present evidence of admission and are in good standing in an NCATE/CAEP approved Teacher Education Program at another institution may be granted admission to Teacher Education at Alcorn State University.

Students who do not make the required score(s) may retake the appropriate test(s). Students may not enroll in any of the following professional education courses until they have been officially admitted to teacher education.

SECONDARY MAJORS — ED 498; ED 302, ED 351, ED 457, ED 468

MU 401 (Music majors only)

Major course for each discipline

Student Teaching; ED 468

ELEMENTARY EDUCATION MAJORS: ED 302; ED 317, ED 351, ED 452, ED 458

SPECIAL EDUCATION MAJORS: ED 302, ED 317, ED 351, ED 356, ED 458

Students enrolled in Teacher Education who have failed to maintain a cumulative average of 2.75 will be placed on probation for one semester. If at the end of the probationary semester, the student’s cumulative average is still below 2.75, the student will be dropped from the Teacher Education Program. During the probationary semester the student may not enroll in ED 458 or ED 468 Directed Teaching or in any other professional education courses except those previously completed with a grade of less than “C.”

ADMISSION TO STUDENT TEACHING

Student teaching is an integral part of the teacher education program at Alcorn State University and is the culmination of the teacher preparation experiences at the University. All students pursuing a degree leading to teacher certification must enroll for student teaching experiences during their final semester at Alcorn State University. Students must pass all required parts of PRAXIS II before admission. Participation in these experiences is limited to those students who apply and are admitted to student teaching. The student must submit an application to the Office of Admissions and Student Advisement no later than July 15th for fall and Oct. 15th for spring. Applicants for admission to student teaching are screened for eligibility on the basis of the following criteria:

Full admission to teacher education (students on probation within teacher education may not enroll in Student Teaching); recommendation of department chairperson;

1. completion of all general education requirements;
2. completion of at least one semester residence at Alcorn State University;

3. an earned grade point average of 2.75 on all work (transfer students must have a 2.75 average on all transferred work and on all work earned at Alcorn State University);
4. completion of at least 95% of the major field requirements with a GPA of 2.75 or above (see departmental offerings for specific courses which must be completed prior to student teaching);
5. completion of professional education requirements with no grade lower than "C;" and, a passing score on the PRAXIS II: Principles of Learning and Teaching *and* the Specialty Area.

DEPARTMENT OF EDUCATION AND PSYCHOLOGY

Dr. Edward Buck, Interim Chair

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The Department of Education and Psychology administers a curriculum for undergraduate majors in elementary education, general studies, and psychology. Additionally, the department offers courses for secondary teacher education majors that will meet the state requirements for certification in the various teaching areas on the secondary levels. The department also offers a graduate degree in teacher education and guidance education and holds as its primary objectives the following:

1. to prepare highly qualified, well-trained teaching and non-teaching professionals to work in the educational and professional environments in Mississippi, the nation, and the world;
2. to guide candidates through a series of professional laboratory experiences that will enable them to become competent in their field of study;
3. to encourage and attract diversified talented students as well as those students who may also suffer under the handicaps of socio-economic and cultural deprivation; and,
4. to prepare graduates to demonstrate the competencies needed for continuing their education in graduate and/or other professional schools.

The elementary education curriculum at Alcorn State University consists of a series of integrated and educational experiences for students preparing to teach children in elementary school systems. These experiences are obtained through core courses, specialized and professional education courses, clinical experiences, and directed teaching. All students majoring in elementary education may obtain two specific areas of concentrations by successfully completing 21 additional hours in each area. The student selects the concentration hours in consultation with his/her advisor.

The Department of Education and Psychology offers a non-teaching degree in Psychology that is designed and intended for students to pursue advanced studies in psychology and related fields. The curriculum focuses on the application of psychological principles of behavior, learning, and personality. The department also provides psychology service courses for all teacher education majors and other majors. The general studies curriculum is designed for non-traditional students and cannot be chosen by incoming freshmen unless they meet the non-traditional student status.

As a support system, the department Curriculum Resource Center (CRC) is established to (1) house professional, educational and psycho-educational materials, instructional materials, learning kits, and an extensive collection of audiovisual equipment/materials; (2) serve as a center for small group discussions and seminars and as the physical facility for open forums of educational exchange; (3) serve as a laboratory for the development of mediated instructional materials. The center is open on a daily basis to all pre-service and in-service students. Teacher education faculty is encouraged to utilize the center to provide instructional experiences as needed.

EDUCATIONAL PERSONNEL AND STAFF DEVELOPMENT

The Department of Education and Psychology sponsors workshops, seminars, and mini-courses in designated areas during the academic year and the summer months. These activities are designed to supplement the regular instructional program and to provide in-service personnel with simulated opportunities to observe, examine, and study teaching/learning situations to enhance the resolution of classroom-related learning situations and events. Credits for these staff development exposures vary depending upon the length and concentration but are generally based as credit hours or continuing education units. Inquiries relative to specific workshops, seminars, or mini-courses should be addressed to the department chairperson or project leader.

Elementary Education (120 Credit Hours)

Freshman Year (33)							
First Semester	Class	Hrs.		Second Semester	Class		Hrs.
EN 111	Composition I	3		EN 112	Composition II		3
PH 132	General Psychology	3		PY 111	Physical Science I		3
HI 111	World Civilization I	3		PE 122	Health		3
BI 111	Intro. to Biology I	3		PE 101	Physical Education		1
MA 121	College Algebra	3		ET 101	Educational Technology		1
UL 101	University Life	<u>1</u>		MA 307	Informal Geometry		3
				BI 112	Intro. to Biology		<u>3</u>
	TOTAL	16			TOTAL		17
Sophomore Year (30)							
ED 200	Social Studies/Multicultural Ed.	3		ED 348	Foundations of Education		3
SA 223	Oral Communication	3		EN 231	Vocabulary Development		3
EN 213	Studies in Literature	3		PE 328	Motor Dev. Movement Ed.		3
MU 213	Music Appreciation	3		PH 326	Psychology of the Except. Child		3
AR 214	Art Appreciation	<u>3</u>		MA 306	The Real Number System		<u>3</u>
	TOTAL	15			TOTAL		15
Junior Year (30)							
ED 314	Early Reading Literacy I	3		ED 302	Teaching Practicum/Technology		3
ED 345	Language Arts/Lit. (K-8)	3		ED 320	Reading Diagnosis		3
PH 336	Educational Psychology	3		ED 317	Early Reading Literacy II		3
PH 347	Measurement Evaluation	3		ED 351	Managing Classrooms		3
ED_____	Elective* ED 403	<u>3</u>		ED_____	Elective* ED 405		<u>3</u>
	TOTAL	15			TOTAL		15
Senior Year (27)							
ED 416	Arithmetic for Children	3		ED 458	Directed Teaching		<u>12</u>
ED 435	Science for Children	3					
ED 452	Elem. Curriculum (K-8)	3					
ED_____	Elective* ED 482	3					
PE 467	Adaptive Physical Ed.	<u>3</u>					
	TOTAL	15			TOTAL		12

*Additional 18 hour-concentration is required for licensure.

Psychology (120 Credit Hours)

Freshman Year (31)							
First Semester	Class	Hrs.		Second Semester	Class		Hrs.
EN 111	Composition I	3		EN 112	Composition II		3
HI 111	World Civilization I	3		MA121	College Algebra		3

BI 111	Intro. to Biology I		3		HU 201	Humanities		3
PH 132	General Psychology		3		PY 111	Physical Science I		3
UL 101	University Life		1		_____	Restricted Elective		<u>3</u>
_____	Restricted Elective		<u>3</u>					
	TOTAL		16			TOTAL		15
Sophomore Year (32)								
SA 223	Oral Communication		3		PH 320	Developmental Psychology		3
PH 231	Motivation		3		PH 340	Cognition		3
PH 230	Learning		3		EN 213	Studies in Literature		3
SP 111	Spanish I		3		PE 102	Physical Education or Foundations of Leadership		1
					MS 102			
PE 122	Health		3		_____	Restricted Elective		3
PE 101	Physical Education or Intro. to the Army		<u>1</u>		SY 330	Social Psychology		<u>3</u>
MS 101								
	TOTAL		16			TOTAL		16
Junior Year (30)								
PH 365	Behavioral Statistics		3		PH 330	Theories of Personality		3
PH 403	History Systems		3		PH 319	Computer App in Psychology		3
PH 440	Group Dynamics		3		PH 470	Experimental Psychology		3
PH 334	Ethics		3		PH 332	Psychological Testing		3
_____	Restricted Elective		<u>3</u>		_____	Restricted Elective		<u>3</u>
	TOTAL		15			TOTAL		15
Senior Year (27)								
PH 471	Abnormal Psychology		3		PH 407	Physiological Psychology		3
_____	Restricted Elective		3		PH 483	Psychology Internship		3
_____	Restricted Elective		3		_____	Restricted Elective		3
_____	Free Elective		<u>6</u>		_____	Free Elective		<u>3</u>
	TOTAL		15			TOTAL		12

General Studies

- I. Incoming freshmen cannot choose **General Studies** as a major unless they meet the requirements for non-traditional student status.
 - A. The **General Studies** program is designed for non-traditional students with diverse interests. Pertinent courses are offered across the curriculum in the Department of Education and Psychology at Alcorn State University. The chosen concentration areas are consistent with students' intended educational development and career goals. The program provides non-traditional students with opportunities for continuing their education, which are consistent with the **communiversity** concept.
 - B. All students desiring to enter the General Studies program must have met regular admission requirements for Alcorn State University and have achieved upper division status.
 - C. Advisement for the General Studies program is housed in and administered through the Department of Education and Psychology.

- II. **Non-traditional Students**
 - A. Any student who is at least 21 years of age upon initial enrollment meets the requirement for Non-traditional status. Any student who has been admitted to the University based on GED, work experience, or professional experience can also be classified as Non-traditional.

- B. Any student who is categorized or termed “**Non-traditional**” will be permitted to enroll in or be admitted to the **General Studies** program at any point during matriculation.

III. Curriculum

Core requirements: The total number of hours required for graduation is 120 hours.

- A. Upper Division Courses
 - 1. Of the ten (10) required upper division courses at the 300 level and above, none of these courses can be taken at the graduate level.

IV. Concentration Area(s)

- A. Each student is required to complete two different twenty-one (21) hour concentrations.
- B. Each course within the two different twenty-one hour concentrations must be taken in the same or related discipline.

V. Exit Requirements

- A. Each student must pass the standard University technology exam.
- B. Each student must successfully pass the multi-skilled Departmental **General Studies** Exit Exam.

B.A. General Studies Curriculum

Freshmen and sophomore studies	60 hrs.
Upper division studies	18 hrs.
Specialized content	<u>42</u>
Total Hours	120

60 Hours Freshman and Sophomore Studies

Course Content	Hrs.
English Composition	6
Creative Arts	9
Oral Communication	3
Social and Behavioral Science	12
Natural Science and Mathematics	15
Health	3
Computer Science	6
Orientation	1
PE, MU or MS	2
Elective	3

18 hours of Upper Division Courses

Note: All electives courses taken should be 300 level or above.

42 hours of electives in Specialized Content (Upper Division Concentration)

Note: Each student must choose two twenty-one (21) hr. concentrations with the consent and Approval of the General Studies Advisor or Department Chairperson.

Total Hours Required: 120 Hours

DEPARTMENT OF HEALTH, PHYSICAL EDUCATION, AND RECREATION

Johnny Thomas, Ed.D., Chair

Davey Whitney Complex Ste. B

Telephone: (601) 877-6506 or 6507

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The **Department of Health, Physical Education, and Recreation (HPER)** prepares its majors to become highly qualified proficient community leaders for the global marketplace. The department provides disciplinary curricula that are relevant, diverse, and comprehensive for acquiring a holistic knowledge base; for learning capable and situational leadership approaches; and for garnering scholarly, professional, and occupational skills. The department also provides opportunities for overall personal and intellectual development and growth by offering contemporary curricula and by offering a variety of instructional and methodical techniques and procedures in the course offerings of its respective degree programs. The department offers undergraduate and graduate degree programs with state, professional, and national accreditations. Possessing such accreditations of these individual degree programs enables the department to offer existing and prospective majors - locally, statewide, nationally, and internationally - a chance to achieve their individually disciplinary goals and degrees in the department and to ensure that their respective degrees have recognizable merit and approval in both the circles of higher education and in the world of work. Thus, majors and prospective majors of the department's undergraduate and graduate degree programs must have a responsive personality, be resourceful, have functional physical abilities, and be intellectually thirsty.

Degree programs and Requirements

The **Department of HPER** offers the **Bachelor of Science Degree in Recreation** and the **Bachelor of Science Degree in Sport Management** as undergraduate degrees and offers **Physical Education and Health** as undergraduate endorsements. Students who are interested in pursuing a **Recreation Degree** or a **Sport Management Degree**: (1) must be admitted by Alcorn State University (ASU); (2) must declare Recreation or Sport Management as their major; (3) must complete all academic requirements of the general education core; (4) must earn a "C" (2.00 above) in all 300 and 400 level Recreation or Sport Management courses; (5) must be a member of the department's HPER Club; (6) and must pass the Recreation or Sport Management Comprehensive Examination. Additionally, students who are interested in pursuing an endorsement in Physical Education: (1) must be admitted by ASU; (2) must declare Physical Education as their endorsement; (3) must complete all academic requirements of the general education core; (4) must earn a "C" (2.00 above) in all 300 and 400 level Physical Education courses; (5) must pass Praxis I and II; (6) must be a member of the department's HPER Club; (7) must fulfill the requirements of the Teacher Education Component of the School of Education & Psychology (SOEP); (8) and must pass the Physical Education comprehensive examination. For students pursuing a certification/endorsement in Health, they must satisfactorily complete the aforementioned requirements of Physical Education and must take 18 hours of health courses (nine hours are offered under the Physical Education Curriculum and nine are offered under the Health Certification Curriculum).

The **Department of HPER** offers a **Post-Baccalaureate Certification Option in NCAA Compliance and Academic Progress Reporting (APR)**; a **Master of Science in Secondary Education with a Concentration in NCAA Compliance and Academic Progress Reporting (APR) - Non-Teaching**; a **Master of Science in Secondary Education with a Concentration in Athletic Administration and Coaching – Teaching**; and a **Master of Science in Secondary Education with a Concentration in Athletic Administration and Coaching - Non-Teaching**. Importantly, with respect to the department's Athletic Administration and Coaching – Teaching Graduate Degree Program, students can earn a **Mississippi Department of Education Educator Licensure**.

Moreover, students interested in pursuing a **Post-Baccalaureate Certification Option in NCAA Compliance and Academic Progress Reporting (APR)**: (1) must have earned a baccalaureate degree from an accredited college or university; and (2) must have a minimum cumulative grade point average (GPA) of 2.50 on a 4.0 scale for all undergraduate courses earned or a minimum cumulative GPA of 2.65 on all upper undergraduate courses earned.

Student interested in pursuing a **Master of Science in Secondary Education with a Concentration in NCAA Compliance and Academic Progress Reporting (APR) - Non-Teaching**: (1) must have a bachelor's or an equivalent degree from an accredited College or University; (2) must have a minimum cumulative grade point average (GPA) of 2.50 on a 4.0 scale for all undergraduate courses earned or a minimum cumulative GPA of 2.65 on all upper undergraduate courses earned; (3) must have taken the GRE (**Important Note**: If a student scores below 3.0 on the analytical writing component of the GRE, he or she is required to take PE 540: Independent Research); (4) must have satisfied all admission requirements of Graduate Studies; (5) must maintain a cumulative GPA of 3.00 in the degree program; (5) and must pass the Core Education and Area Comprehensive Examinations. Students interested in pursuing a **Master of Science in Secondary Education with a Concentration in Athletic Administration and Coaching - Teaching with an Educator Licensure**: (1) must have earned an undergraduate degree with a cumulative GPA of 2.50 on a 4.0 scale for all undergraduate courses earned or a minimum cumulative GPA of 2.65 on all upper undergraduate courses earned; (2) must have satisfied all admission requirements of Graduate Studies; (3) must have a valid, permanent teacher license or have documentation of having passed both Praxis I and II; (4) must maintain a cumulative GPA of 3.00 in the degree program; (5) and must pass the Core Education and Area Comprehensive Examinations. Conversely, students without teacher licensure and are interested in pursuing the **Master of Science in Secondary Education with a Concentration in Athletic Administration and Coaching - Non-Teaching**: (1) must have a bachelor's or an equivalent degree from an accredited College or University; (2) must have earned an undergraduate degree with a cumulative GPA of 2.50 on a 4.0 scale for all undergraduate courses earned or a minimum cumulative GPA of 2.65 on all upper undergraduate courses earned; (3) must have taken the GRE (**Important Note**: If a student scores below 3.0 on the analytical writing component of the GRE, he or she is required to take PE 540: Independent Research); (4) must have satisfied all admission requirements of Graduate Studies; (5) must sign a written statement to corroborate that they understand they are pursuing a Non-Teaching-Certification degree; (6) must maintain a cumulative GPA of 3.00 in the degree program; (6) and must pass the Core Education and Area Comprehensive Examinations.

The **Department of HPER** continuously advances its undergraduate and graduate degree programs to satisfy the frequently updated accreditation standards of its degree programs' individual accreditation bodies. The curriculum of each departmental degree program is consistently and periodically evaluated and, if needed, revised to fulfill the contemporary, diverse, and holistic academic needs of all students, including majors and non-majors and those locally, statewide, nationally, and internationally.

Descriptions of the department's undergraduate and graduate degree programs are as follows: The **Recreation** degree program provides majors with a variety of extensive, contemporary, and probing theoretical, practical, and research opportunities. The degree program enables majors to acquire competencies in recreation through pertinent knowledge, experiential growth, and professional development and enables them to be capable in providing persons with knowledge and skills in recreational, leisure time, and/or lifelong activities. Additionally, the degree program ensures that majors attain a relevant, holistic, and diverse knowledge base that equips them with proficient skills to be successful in graduate school and in the world of work pertaining to any professional and/or related areas of recreation.

The **Sport Management** degree program engages majors in a profound, comprehensive exploration, examination, and study of the various knowledge bases underlying sport management. The degree program focuses on developing future Sport Management Professionals' (SMPs) competencies in volition and problem solving; skills in organizing, planning, collaborating, delegating, and leading; expertise in budget data interpretation, analysis, and application; and familiarity in technological software and application. The degree program stresses the importance of commitment, diversity, integrity, service, accreditation, and professionalism. One of the specific emphases of the degree program especially for the subsequent decades is to graduate SMPs with diverse backgrounds not only to satisfy the numerous employment needs of the constantly changing and growing sport industry but also as competent leaders for the marketing of sports entities, either nationally or internationally, with resounding public lure, and for the effective leadership of an athletic and/or a sport program on any athletic, professional, and/or non-athletic hierarchy.

The **Health and Physical Education** endorsements prepare majors to teach health, physical education, and/or coach students in grades from K thru 12. Both endorsements offer majors mastery in instructional, methodological, and technological techniques specific to the instruction, application, and adaptation of physical and health activities and skills not only with able body persons but also with those with disabled bodies. Also, both endorsements provide individual knowledge bases that can facilitate the majors' acquisition and application of appropriate theoretical, practical, and spontaneous classroom and managerial leadership approaches as physical educators, health educators, health care providers, coaches, and/or as administrators.

The **NCAA Compliance and Academic Progress Reporting (APR) Post-Baccalaureate Certification Option** is a fifteen (15) hour online certification program. The certification option's purpose is to provide professionals not only in scholastic and intercollegiate athletics but also those seeking a career change an opportunity to acquire a knowledge base on and best practices of NCAA compliance and APR reporting.

The **Master of Science in Secondary Education with a Concentration in NCAA Compliance and Academic Progress Reporting (APR) - Non-Teaching** enhances majors with the essential competencies to become effective leaders in NCAA compliance and APR reporting and enables them to acquire quality experiential, practical knowledge to oversee the compliance and academic progress reporting of scholastic and collegiate athletic programs on any level of athletic hierarchy. The degree program teaches students how to engage in and execute best practices of academic progress reporting so that the student-athletes' academic success, retention, and career related competencies can be achieved.

The **Master of Science in Secondary Education with a Concentration in Athletic Administration and Coaching with Educator Licensure** requires majors to engage in a profound, comprehensive exploration, examination, and study of the various administrative, scientific, injurious, and coaching models and offers theories, approaches, techniques, and methodologies for the effective management, administration, operation, and leadership of an athletic and/or a sport program on any athletic and/or non-athletic hierarchy. The **Master of Science in Secondary Education with a Concentration in Athletic Administration and Coaching Non-Teaching without Educator Licensure** offers majors the same degree program as that mentioned above but without Educator Licensure.

Academic Support & Obesity

The **Department of HPER** offers health, physical activity, sport-related skill, and fitness courses to support the **General Education Core Curriculum** and to combat **obesity**:

These courses are offered to familiarize students of the many different enhancers and detriments that can influence their psyche, attitude, knowledge, health, fitness, and lifelong engagement in executing a reasonably conscientious style of living healthy. Moreover, the main goal of offering these courses is to infuse in the consciousness of students how the body responds to disease or exercise; how it responds positively or negatively to individual and environmental factors; how it reacts to a healthy or unhealthy lifestyle; and how learning healthy lifestyle best practices can enable them to maintain an energetic pursuit in any academic and/or professional endeavor and to sustain a quality professional and a personal long life span of wholesome exuberance.

The **HPER CLUB** involves majors in the process of organizing, planning, marketing, community service, teamwork, and leadership. Because the club is major-centered, the department's chair and faculty serve only in an advisory role. The majors are solely responsible for creating the vision and mission statements of the club; recruiting majors and/or non-majors that are not members; electing the officers for the club; determining the procedural operations, campus and community service functions, and fund-raising events of the club; and participating in the department's research, professional, and academic development.

Lastly, the **Department of HPER**, as such, performs indeed the vital roles of nurturing, advising, leading, and empowering not only able-body students but also those with special needs of the diverse population of the University. In light of these roles, the department structures its overall operational processes, academic degrees, and components to have a personal, an advisory, and a professional link with these students and those with special needs.

Course Electives

The course electives of majors must be selected and taken sequentially. The electives must fortify the knowledge base of the majors' primary and/or secondary discipline for successful employment in occupations associated with Recreation, Sport Management, Health, Physical Education, NCAA Compliance & APR Reporting, and Athletic Administration & Coaching – Teaching or Non-Teaching.

The **Ongoing Goals** of the **Department of HPER** are as follow:

1. To attract both national and international students with diverse backgrounds and with the academic competence to excel as majors in the department.
2. To engage majors as proactive participants in the follow through of not only the vision, mission, and goals of the University but also those of the department.

3. To provide students with far-reaching, diverse, contemporary, and disciplinary departmental requisites that enable them to be scholars and leaders in the world of their chosen individual disciplines or professions.
4. To offer undergraduate and graduate disciplinary degrees and endorsements that provide a rigorous and sufficient curricula that meaningfully and individually challenge majors to acquire a knowledge base and the practical and experiential experiences effective for not only the passage of professional licensure but also for the ease in continuing professional or graduate school.
5. To provide the public of Alcorn and that of the surrounding areas with health-related information and screenings through courses, conferences, events, grants, and workshops.
6. To be a staunch advocate and contributor in the promotion of the prevention and cure of obesity.
7. To implement disciplinary degree programs that can satisfactorily address and fulfill societal needs with adequate graduation of majors in such programs;
8. To have a HPER CLUB (a) that provides chances for majors to execute managerial and administrative skills in an organization; (b) that causes an understand of majors to realize the importance of displaying flexibility and teamwork in working with individuals from diverse backgrounds; (c) that encourages majors to participate in volunteering for and/or create service learning projects for those in need; (d) that focuses on majors gaining experience on marketing and fundraising for specific enhancements of the club; (e) and that convinces majors to exercise, realize, and experience the theoretical and practical approaches for the learning of non-effective and/or learning of effective leadership skills as the leader of an organization.

Recreation Degree Curriculum (120 Credit Hours)

Freshman Year (34)							
First Semester	Class	Hrs.		Second Semester	Class	Hrs.	
EN 111	Composition I	3		EN 112	Composition II	3	
HI 111	World Civilization I	3		BI 112	Intro. to Biology II	3	
BI 111	Intro. to Biology	3		HI 112	World Civilization II	3	
PE 122	Health	3		MA 121	College Algebra	3	
PY 111	Physical Science I	3		PH 132	General Psychology	3	
PE 101	Physical Education	1		PE 1002	Physical Education II	1	
UL 101	University Life	<u>1</u>		CS 100	Intro. to Computers	<u>1</u>	
	TOTAL	17			TOTAL	17	
Sophomore Year (28)							
SS 111	Social Institutions	3		PE 245	First Aid Safety	3	
PE 237	Elementary Dance	3		PH 320	Developmental Psychology	3	
AR 214	Art Appreciation	3		MU 213	Music Appreciation	3	
EN 213	Studies in Literature	3		SA 223	Oral Communication	3	
_____	Technology Elective	<u>3</u>		PE 201	Phys. Ed. Activity	<u>1</u>	
	TOTAL	15			TOTAL	13	
Junior Year (31)							
BI 335	Human Anatomy/Phys.	3		RC 354*	Practicum in Recreation	3	
BI 335L	Human Anatomy/Phys. Lab	1		RC 347	Meth/Mtls in Leisure Prog.	3	
PE 327	Coaching/Officiating	3		RC 417	Camp Counseling	3	
RC 316	Intro. to Recreation	3		SY 330	Social Psychology	3	
RC 358	Recreation for the Aging	3		RC 458	Outdoor Recreation	<u>3</u>	

PE 336	History and Principles		<u>3</u>				
	TOTAL		16			TOTAL	15
Senior Year (27)							
RC 429	Org. Adm. of Rec.		3		RC 428*	Fieldwork	6
RC 437	Recreational Leadership		3		RC 478	Leisure Counseling	3
RC 457	Community Recreation		3		PE 491*	Independent Study	<u>3</u>
PE 467	Adapted Physical Ed.		3				
RC 477	Areas and Facilities		<u>3</u>				
	TOTAL		15			TOTAL	12

*Restricted Courses

* PE 491 is not offered during the summer, only in the fall and spring semesters.

Sport Management Degree Curriculum (120 Credit Hours)

Freshman Year (34)							
First Semester	Class		Hrs.		Second Semester	Class	Hrs.
EN 111	Composition I		3		EN 112	Composition II	3
SS 111	Social Institutions		3		PY 111	Physical Science I	3
BI 111	Intro. to Biology		3		MA 121	College Algebra	3

PE 122	Health		3		CS 100	Intro. to Computers	1
PE 100	Physical Education I		1		BI 113	Intro. Env. Bio/Ecology	3
PH 132	General Psychology		3		BI 113L	Intro. Env. Bio/Ecology Lab	1
UL 101	University Life		<u>1</u>		SS 112	Social Institutions	<u>3</u>
	TOTAL		17			TOTAL	17

Sophomore Year (32)

PE 200	Physical Education		1		CS 201	Basic Programming	3
EC 201	Principles of Economics I		3		AC 213	Principles of Financial Accounting	3
HU 201	Humanities		3		EN 231	Vocabulary Development	3
SA 223	Oral Communication		3		SM 201	Direct Sport Recreation	3
EN 213	Studies in Literature		3		ED 200	Social Studies/Multicultural Ed.	3
*SM 200	Intro. to Sport Management		<u>3</u>		PE 200	Physical Education	<u>1</u>
	TOTAL		16			TOTAL	16

Junior Year (30)

SM 300	Liability Safety Sport		3		SM 303	Facility Management	3
SM 301	Sports Ethics		3		SM 304	Sport Law, Contracts Compliance*	3
MG 301	Principles of Management		3		SM 305	Trends, Issues, Challenges of Sport Management	3
MK 301	Principles of Marketing		3		SM 306	Essentials of Strength Conditioning	3

SM 302	Fundraising Promotion		<u>3</u>		PE 356	Measurement Evaluation in Physical Education Sport		<u>3</u>
	TOTAL		15			TOTAL		15
Senior Year (24)								
MK 477	Marketing Management		3		SM 403	Sport Internship**		<u>12</u>
PE 491	Independent Research		3					
SM 401	Psychology of Sport		3					
SM 402	Sport Marketing		<u>3</u>					
	TOTAL		12			TOTAL		12

PE 491 is not offered during the summer, only in the fall and spring semesters.

*Prerequisite: must take SM 200 first before allowed to take other 200, 300, and 400 level courses.

**Prerequisites: must have taken all 300 and 400 level courses.

***Health, Physical Education Endorsement Curriculum (120 Credit Hours)**

Freshman Year (34)								
First Semester	Class		Hrs.		Second Semester	Class		Hrs.
EN 111	Composition I		3		EN 112	Composition II		3
HI 111	World Civilization I		3		SS 111	Social Institutions		3
BI 111	Intro. to Biology I		3		BI 112	Intro. to Biology II		3
PE 122	Health		3		MA 121	College Algebra		3
PE 101	Physical Education		1		CS 100	Intro. to Computers		1
PH 132	General Psychology		3		HI 112	World Civilization II		3
UL 101	University Life		<u>1</u>		PE 102	Physical Education II		<u>1</u>
	TOTAL		17			TOTAL		17
Sophomore Year (28)								
PE 201	Phys. Ed. Activity		1		PH 326	Psy of the Except. Child		3
PE 237	Elementary Dance		3		PE 336	Hist/Principles of Phy. Ed.		3
SA 223	Oral Communication		3		EN 231	Vocabulary Development		3
EN 213	Studies in Literature		3		ED 200	Social Studies/Multicultural Ed.		<u>3</u>
PE 226	Consumer Health		3					
PE 245	First Aid Safety		<u>3</u>					
	TOTAL		16			TOTAL		12
Junior Year (34)								
BI 335	Human Anatomy/Phys.		3		PE 346**	Methods Materials in P.E. Secondary		3
BI 335L	Human Anatomy/Phys. Lab		1		ED 302**	Teaching Practicum/Technology		3
PE 356	Measurement/Eval.		3		ED 351**	Managing Classroom Behavior		3
PH 336	Educational Psychology		3		ED 348**	Foundations of Education		3
PE 327	Coaching/Officiating		3		PE 468	Kinesiology		3
PE 328	Motor Dev. Movement ED		<u>3</u>		PE 417**	Teaching Practicum		<u>3</u>
	TOTAL		16			TOTAL		18

Senior Year (24)							
PE 427	Org/Admin. of Phy Ed.		3		ED 468***	Directed Teaching	<u>12</u>
PE 467	Adapted Physical Ed.		3				
ED 498**	Reading in the Secondary School		3				
PE 435	Physiology of Exercise		<u>3</u>				
	TOTAL		12			TOTAL	12

Note: Teacher certification requirements will vary as State Licensure mandates are revised or updated.

*Nine additional Health courses are required to obtain certification in Health.

**Restricted Courses: must pass Praxis I before taking these courses.

***ED 468: must pass Praxis II before taking course.



School of Nursing

- Associate of Science in Nursing Program
- Bachelor of Science in Nursing Program

SCHOOL OF NURSING

Dr. Shirley Evers-Manly, Interim Dean
Cora Balmat School of Nursing – Natchez Campus
Telephone: (601) 304-4302
Fax: (601) 304-4372

GENERAL INFORMATION

Alcorn State University School of Nursing is located on the Natchez Campus, approximately 40 miles south of the Lorman Campus. The School of Nursing was established in 1977 with an Associate of Science in Nursing Program. In fall 1979, the first students were admitted to the Bachelor of Science in Nursing Program. In the spring 1995, the first students were admitted to the Graduate Nursing Program. Program options at the graduate level include family nurse practitioner and nurse educator with post-master's certificate options available in family nurse practitioner and nurse educator areas. The Post Master's Doctor of Nursing Practice (DNP) program was established in 2019 with the first cohort of students admitted in the fall of 2019. Additional information about the Graduate Nursing Programs can be found in the current Alcorn State University Graduate Catalog.

The School of Nursing is organized into two academic programs; Undergraduate (Associate of Science in Nursing [ASN] and Bachelor of Science in Nursing [BSN]) and Graduate (Master of Science in Nursing [MSN] and Post Master's Doctor of Nursing Practice [DNP]). In addition to the two academic programs, the School of Nursing has a nurse-managed family clinic that provides primary health care services to the local population, opportunities for faculty practice, and practice learning experiences for students.

Mission

Through teaching, scholarship and service, the mission of the School of Nursing is to provide undergraduate and graduate nursing programs that are committed to excellence in the education and preparation of clinically competent, caring, nursing professionals.

Vision

The vision of the School of Nursing is to achieve national prominence as a leader of excellence in nursing education, nursing practice, and nursing research.

Values

Holism	Professionalism	Accountability
Integrity	Diversity	Competence
Leadership	Service	Collaboration

The following information is applicable to both the Associate of Science in Nursing (ASN) and Bachelor of Science in Nursing (BSN) Programs.

1. Satisfactory completion of prerequisite course requirements and minimal admission requirements does not automatically insure admission to the ASN or BSN Program.
2. Applicants are only considered for admission to the selected program for the fall semester of each year as designated on the application form. If the applicant is accepted and fails to enroll, or if the applicant is not accepted, a new application must be submitted in order to be considered for a subsequent enrollment date. The new application is reviewed according to the current admission criteria.
3. Students entering any undergraduate nursing program must meet all accreditation, Mississippi Institutions of Higher Learning, Alcorn State University, clinical affiliate, and School of Nursing requirements including proof of Hepatitis B vaccination, satisfactory criminal background check, satisfactory drug screen, and proof of health insurance.
4. Students must abide by all the procedures, policies, and guidelines as written in the current School of Nursing Undergraduate Student Handbook. The current School of Nursing Undergraduate Student Handbook can be found on the School of Nursing website (<https://www.alcorn.edu/academics/schools-and-departments/school-of-nursing/son-student-resources>).

5. Upon successful completion of the ASN or BSN program of study, those graduates that meet the requirements of the State Board of Nursing are eligible to write the National Council Licensure Exam for Registered Nurses (NCLEX-RN)® administered by the National Council of State Boards of Nursing.
6. Students who have failed two (2) or more nursing courses, or who have been dismissed from any nursing program, are not eligible for admission.
7. Additional information regarding the ASN and BSN Programs can be found on the School of Nursing webpage (<https://www.alcorn.edu/academics/schools-and-departments/school-of-nursing>).

PROCESS FOR SELECTION TO UNDERGRADUTE NURSING PROGRAMS

1. Must meet admission requirements for the specific undergraduate program making application for.
2. All required admission documents must be submitted by the date designated on the Application for Admission to Undergraduate Nursing Programs.
3. Individuals who meet admission requirements and have submitted all required admission documents by the specified deadline will be considered for program admission based on a rating scale (See School of Nursing website for details).
4. The applicant can be selected for admission into the ASN or BSN Program pending completion of all prerequisites; however, all admission criteria and requirements must be met prior to enrollment in the first clinical nursing course.
5. Applicants not selected for admission may reapply for the next fall term by submitting a new Application for Admission to Undergraduate Nursing Programs and must meet the current admission criteria.

TRANSFER STUDENTS

The Associate Dean for the School of Nursing will evaluate credit for transfer courses; however, only a maximum of up to eight (8) semester hours in nursing credits will be considered for transfer. Courses with grades less than “C” are not transferable. Nursing course work presented for transfer credit must have been completed with a grade of “C” or better and must have been completed within one year of the current request for admission. Only nursing courses from a nationally accredited nursing program will be considered.

TRANSFER STUDENTS MUST:

1. Meet general admission criteria and requirements and have a cumulative grade point average of 2.5 or greater on a 4.0 scale on all college transcripts.
2. Submit a Letter of Good Standing and a written recommendation from previous School of Nursing Dean or Director.
3. Participate in mandatory orientation and skills assessment sessions.

REGISTRATION

Registration for all nursing courses can be completed online or on the Natchez Campus. All students enrolling in beginning level nursing courses must see an advisor and complete registration onsite on the Natchez Campus. Those students who are continuing in the nursing program, after successfully completing the beginning level nursing courses, may register online after seeing their advisor. Dates for registration are listed in the University calendar. All students are responsible for ensuring that registration is complete and that tuition has been paid each semester.

GRADUATION

The Associate of Science in Nursing and the Bachelor of Science in Nursing degrees are granted on the recommendation of the undergraduate faculty after satisfactory completion of the University and Program requirements. These requirements include:

1. Successful completion of the Associate of Science in Nursing or the Bachelor of Science in Nursing curriculum.
2. Attainment of a cumulative grade point average of 2.0 or greater on a 4.0 scale.

All prospective candidates for graduation from Alcorn State University must either pass a departmental examination or complete a written project. The Associate of Science in Nursing and the Bachelor of Science in Nursing Programs have selected a comprehensive examination to meet the University requirement. This examination is part of the course requirements and will be administered in the graduating semester of both of the Undergraduate Nursing Programs.

AMERICANS WITH DISABILITIES ACT POLICY

Upon admission to the School of Nursing, a student who discloses a properly certified disability will receive a reasonable accommodation.

However, in order to perform safe client care, students must meet core performance standards and functional abilities for admission and progression, as published by the Southern Council on Collegiate Education for Nursing (SCCEN). A copy of the Core Performance Standards can be found on the School of Nursing (SON) webpage at <https://www.alcorn.edu/academics/schools-and-departments/school-of-nursing/son-undergraduate-admissions>.

Any student who feels he or she may need an accommodation based on the impact of a disability should contact Health and Disability Services at (601) 877-6460 to discuss specific needs. Health and Disability Services is located in the Felix H. Dunn Health Services Center, 1000 ASU Drive, #779, Alcorn State, MS 39096. The Office of Health and Disability Services coordinates reasonable accommodations for students with documented disabilities.

ACCREDITATIONS

In addition to the Southern Association for the Accreditation of Schools and Colleges Commission on Colleges (SACSCOC), the Associate of Science in Nursing and the Bachelor of Science in Nursing Programs are accredited by the following agencies:

Accreditation Commission for Education in Nursing (ACEN)

3343 Peachtree Rd., NE, Suite #850

Atlanta, GA 30326

Telephone: 1-404-975-5000

www.acenursing.org

State of Mississippi Board of Trustees of State Institutions of Higher Learning (IHL)

3825 Ridgewood Road

Jackson, MS 39211-6453

Telephone: 601-432-6486

<http://www.ihl.state.ms.us/nursing>

ASSOCIATE OF SCIENCE IN NURSING PROGRAM

Cora S. Balmat School of Nursing

Telephone: (601) 304-4226

Fax: (601) 304-4372

The Associate of Science in Nursing (ASN) curriculum is designed to prepare graduates who are competent to function as entry-level registered nurses. The graduate of the ASN Program will be proficient in a core set of competencies that will guide their practice as registered nurses. These competencies include: client-centered care, professionalism, leadership, systems-based practice, informatics and technology, communication, teamwork and collaboration, safety, quality improvement, and evidence-based practice (Mississippi Nursing Competency Model, 2012). The graduate is prepared to utilize clinical reasoning through the nursing process as a basis for clinical decision making. The graduate engages in collaborative and managed care in diverse settings.

The curriculum fulfills the educational needs of qualified applicants who desire to prepare for nursing in a relatively short period of time in a university setting. Opportunities are also provided for upward mobility of licensed practical nurses. The curriculum combines courses offered by Alcorn State University, Natchez Campus, with planned and guided learning experiences in clinical nursing in affiliating hospitals and community agencies. The number of hours required for graduation with the Associate of Science in Nursing degree is 64.

MISSION AND END-OF-PROGRAM STUDENT LEARNING OUTCOMES

The mission of the ASN Program is to cultivate a learning environment that facilitates the acquisition of knowledge, skills, and attitudes necessary to provide safe, competent nursing care that promotes optimal health outcomes for individuals, families, and communities.

The graduate of the ASN Program possesses the knowledge, skills, and attitudes necessary to:

1. Evaluate nursing care provided to clients, families, groups, and communities across the lifespan from diverse backgrounds in a variety of settings to ensure that it is compassionate, age and culturally appropriate, and based on a client's preferences, values and needs.
2. Collaborate with members of the interprofessional health care team to manage and coordinate the provision of safe, quality care for clients, families, and groups.
3. Demonstrate use of best current evidence and clinical expertise when making clinical decisions in the provision of client-centered care.
4. Use evidence-based quality improvement processes to effect change in the delivery of client-centered care.
5. Demonstrate effective use of strategies to mitigate errors and reduce the risk of harm to clients, self, and others in healthcare, home, and community settings.
6. Use evidence-based information and client care technology to communicate relevant client information, manage care, and mitigate error in the provision of safe, quality client-centered care.
7. Assimilate integrity and accountability into practices that uphold established regulatory, legal, and ethical principles while providing client-centered, standard-based nursing care.
8. Use leadership, management, and priority-setting skills in the provision and management of safe, quality client-centered care.
9. Analyze the impact that the macrosystem has on the provision of safe, quality client-centered care in the microsystem of the work unit.
10. Use verbal and nonverbal communication strategies with clients, families, colleagues, and groups from diverse backgrounds that foster mutual respect and shared decision making to enhance client satisfaction and health outcomes.

ADMISSION CRITERIA AND REQUIREMENTS FOR THE ASSOCIATE OF SCIENCE IN NURSING PROGRAM

The applicant must:

1. be eligible for undergraduate admission to Alcorn State University;

2. submit an official high school transcript or documentation of GED;
3. have an American College Test (ACT) composite score of 18 or greater (15 or higher prior to October 1989);
4. have an American College Test (ACT) sub-score of 18 or greater in Math (15 or higher prior to October 1989);
5. have an American College Test (ACT) sub-score of 18 or greater in Reading (applicants who took the ACT prior to October 1989 must retake the ACT to obtain the Reading sub-score);
6. have a cumulative grade point average (GPA) of 2.5 or higher on a 4.0 scale on transferable college credits;
7. complete the prerequisites: BI 114; Anatomy and Physiology I, BI 114L: Anatomy and Physiology I Laboratory, BI 214 Anatomy and Physiology II: BI 214 Anatomy and Physiology II Laboratory; UL 101: University Life, and MA 121: College Algebra with a grade of C or better before admission to the first clinical course (NU 118). (The application may be submitted pending completion of the Pre-requisite courses.)
7. complete an Alcorn State University Application for Undergraduate Admission; and
8. complete an Application for Admission to the Associate of Science in Nursing Program.

PROGRAM OF STUDY: GENERIC ASN OPTION*

Completion of prerequisite course requirements for the Associate of Science in Nursing degree does not automatically insure admission to the ASN Program Generic Option.

Prerequisites	Class	Hrs.
BI 114	Anatomy and Physiology I with Lab	4
BI 214	Anatomy and Physiology II with Lab	4
MA 121	College Algebra	3
UL 101	University Life	<u>1</u>
	Total	12

First Year (26)							
First Semester	Class	Hrs.		Second Semester	Class	Hrs.	
NU 118	Foundations of Client-Centered Care	8		NU 128	Client-Centered Care I	8	
EN 111	Composition I	3		BI 325	Microbiology with Lab	<u>4</u>	
SY 235	Introduction to Sociology	<u>3</u>					
	TOTAL	14		TOTAL		12	
Second Year (26)							
NU 218	Client-Centered Care II	8		NU 223	Role Transition	3	
PH 320	Developmental Psychology	3		NU 229	Client-Centered Care III	<u>9</u>	
SY 235	Creative Arts/Humanities Elective **	<u>3</u>					
	TOTAL	14		TOTAL		12	

****Electives must be approved. UL 101 University Life is a university requirement for incoming freshmen. Nursing courses must be taken in sequence with the designated Prerequisites and Co-requisites.**

LICENSED PRACTICAL NURSE (LPN) ADVANCED PLACEMENT OPTION

The Licensed Practical Nurse (LPN) Advanced Placement Option is designed for the Licensed Practical Nurse (LPN) who seeks to further his/her education and advance in the nursing profession. The LPN Advanced Placement Option is a three (3) semester program, which begins in the summer semester and can be completed at the end of the following spring semester, after completion of all degree requirements.

Licensed Practical Nurses who are currently practicing and have a minimum of one year practice experience are eligible for consideration for admission to the LPN Advanced Placement Option. Applicants for the LPN Advanced Placement Option must meet the general University undergraduate admission requirements and ASN Program admission requirements. The applicant must have a current unencumbered license to practice as a Licensed Practical Nurse.

Applicants for the LPN Advanced Placement Option are also required to successfully pass a credit examination. The credit examination may be taken twice in order to achieve the score needed for Program admission and validation credit. Individuals will be contacted by the School of Nursing personnel regarding testing dates and registration instructions.

If the applicant is unsuccessful on the credit examination, he/she may apply for admission into the Generic Option. Applicants successfully passing the credit examination requirement of the LPN Advanced Placement Option must enter the ASN Program during the same academic year the credit examination is completed. After passing the credit examination and registering for the LPN Advanced Placement Option, the Licensed Practical Nurse is awarded eight (8) semester hours credit for NU118: Foundations of Client-Centered Care and is responsible for paying the credit-by-examination fee prior to enrolling in NU 128.

ADMISSION CRITERIA AND REQUIREMENTS FOR LPN ADVANCED PLACEMENT OPTION:

The applicant must:

1. submit a copy of a current unencumbered practical nurse (LPN) license.
2. be eligible for undergraduate admission to Alcorn State University;
3. submit an official high school transcript or documentation of GED;
4. have an American College Test (ACT) composite score of 18 or greater (15 or higher prior to October 1989);
5. have an American College Test (ACT) sub-score of 18 or greater in Math (15 or higher prior to October 1989);
6. have an American College Test (ACT) sub-score of 18 or greater in Reading (applicants who took the ACT prior to October 1989 must retake the ACT to obtain the Reading sub-score);
7. have a cumulative grade point average (GPA) of 2.5 or higher on a 4.0 scale on transferable college credits;
8. achieve the required score for admission on a credit examination.
9. complete the prerequisites: BI 114; Anatomy and Physiology I, BI 114L; Anatomy and Physiology I Laboratory, BI 214; Anatomy and Physiology II, BI 214; Anatomy and Physiology II Laboratory, UL 101: University Life, MA 121; College Algebra, EN I: English Composition I, and SY 235: Introduction to Sociology with a grade of C or better before admission to the first clinical course (NU 128). (The application may be submitted pending completion of the Pre-requisite courses.)
10. complete an Alcorn State University Application for Undergraduate Admission; and
11. complete an Application for Admission to the Associate of Science in Nursing Program.

PROGRAM OF STUDY: LPN ADVANCED PLACEMENT OPTION:

Completion of prerequisite course requirements for the Associate of Science in Nursing degree does not automatically insure admission to the ASN Program LPN Advanced Placement Option.

Pre-requisites	Class		Hrs.
BI 114	Anatomy and Physiology I with Lab		4
BI 214	Anatomy and Physiology II with Lab		4
MA 121	College Algebra		3
EN 111	Composition I		3
SY 235	Introduction to Sociology		3
UL 101	University Life		<u>1</u>
	TOTAL		18

NU 118	Foundations (Credit by Examination)		8
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Summer Session	Class		Hrs.
NU 128	Client-Centered Care I		8
BI 325	Microbiology with Lab		<u>4</u>
	TOTAL		12

First Semester	Class		Hrs.		Second Semester	Class		Hrs.
NU 118	Client-Centered Care II		8		NU 223	Role Transition		3
PH 320	Developmental Psychology		3		NU 229	Client-Centered Care III		<u>9</u>
	Creative Arts/Humanities Elective*		<u>3</u>					
	TOTAL		14			TOTAL		12

*Electives must be approved. UL 101 University Life is a university requirement for incoming freshmen. Nursing courses must be taken in sequence with the designated Prerequisites and co-requisites.

BACHELOR OF SCIENCE IN NURSING PROGRAM

Cora S. Balmat School of Nursing

Telephone: (601) 304-4226

Fax: (601) 304-4372

The Bachelor of Science in Nursing (BSN) Program is committed to the implementation of a curriculum that is designed to prepare the student for a multi-faceted role as an entry-level registered nurse. The curriculum is designed to prepare the student to use antecedent knowledge from the liberal arts and the sciences in order to provide a solid foundation for the development of the core competencies of client-centered care, professionalism, leadership, systems-based practice, informatics and technology, communication, teamwork and collaboration, safety, quality improvement, and evidence-based practice (Mississippi Nursing Competency Model, 2012). These core competencies provide an effective base of knowledge and cognitive skills for graduates to assume the role of professional registered nurse.

The BSN curriculum offers two program options leading to a Bachelor of Science in Nursing degree: Generic and RN to BSN Options. Prerequisite coursework, required for consideration for admission to the BSN Program, may be taken at Alcorn State University or can be transferred from an accredited college or university. The curriculum combines courses offered by Alcorn State University, Natchez Campus, with planned and guided learning experiences in clinical nursing in affiliating hospitals and community agencies. The number of hours required for graduation with the Bachelor of Science in Nursing degree is 120 credit hours: 60 hours in prerequisite coursework and 60 hours in nursing coursework.

MISSION AND END-OF-PROGRAM STUDENT LEARNING OUTCOMES

The mission of the BSN Program is to prepare nurses to meet the health needs of the community and clients across the lifespan through the use of evidence-based practice and applications of knowledge, skills, and attitudes required to deliver safe, competent, and high quality client-centered care in complex healthcare environments.

The graduate of the BSN Program will possess the knowledge, skills, and attitudes necessary to:

1. Manage nursing care provided to clients, families, and groups across the lifespan from diverse backgrounds in a variety of settings to ensure that it is compassionate, age and culturally appropriate and based on a client's background, preferences, values, and needs.
2. Collaborate with members of the interprofessional healthcare team to manage and coordinate the provision of safe, quality care for clients, families, and groups.
3. Synthesize the best current evidence and clinical expertise when making clinical decisions in the provision of client-centered care.
4. Use quality improvement measures to evaluate the delivery of client-centered care and client outcomes.
5. Demonstrate effective use of strategies to mitigate errors and reduce the risk of harm to clients, self and others in healthcare, home, and community settings.
6. Integrate evidence-based information and client care technology to communicate relevant client information, manage care and mitigate error in the provision of safe, quality client-centered care.
7. Assimilate integrity and accountability into practices that uphold established regulatory, legal and ethical principles while providing standard-based care.
8. Integrate leadership and management theories and principles into practice when managing a caseload of clients and making clinical judgments about their care.
9. Develop verbal and nonverbal communication strategies that promote an effective exchange of information and development of therapeutic relationships with clients, families, and groups from diverse backgrounds.
10. Analyze the impact that the macrosystem has on the provision of safe, quality client-centered care in the microsystem of the work unit.

ADMISSION CRITERIA AND REQUIREMENTS FOR THE BACHELOR OF SCIENCE IN NURSING PROGRAM

The applicant must:

1. be eligible for undergraduate admission to Alcorn State University;
2. submit an official high school transcript or documentation of GED;
3. submit official transcript(s) from each college/university attended;
4. have an ACT composite score of 21. Students with the required ACT composite score must also have at least a grade of C in each prerequisite course and an overall grade point average of 2.5 on a 4.0 scale;
5. have a cumulative grade point average (GPA) of 2.5 or higher on a 4.0 scale on transferable college credits;
6. complete an Alcorn State University Application for Undergraduate Admission;
7. complete an Application for Admission to Undergraduate Nursing Programs; and
8. complete lower level prerequisites for entering to the Upper Level Program of Study. Lower level prerequisites must be completed and documented (via transcript) by each applicant prior to the anticipated date of enrollment in the first clinical nursing course.

LOWER LEVEL PREREQUISITE COURSES (Required of all BSN Program applicants)

Completion of lower level prerequisite course requirements for the Bachelor of Science in Nursing degree does not automatically assure admission to the BSN Program.

<u>Prerequisite Courses</u>	<u>Semester Hours</u>
English (6 Hours)	
Composition I	3
Composition II	3
Creative Arts (9 Hours)	
Literature	3
Oral Communication	3
Elective (Creative Arts Elective)	3
Social Sciences (21 Hours)	
History	3
Sociology, Ethics, The Family	9
General Psychology	3
Developmental Psychology	3
Statistical Methods	3
Natural/Physical Sciences 15 Hours Total (Including Labs)	
Anatomy & Physiology I with Lab	4
Anatomy & Physiology II with Lab	4
Microbiology with Lab	4
Nutrition	3
Junior Year (30)	

Mathematics (3 Hours)	
College Algebra	3
Electives	5
University Requirements	
University Life	<u>1</u>
Total	60

UPPER LEVEL BSN PROGRAM OF STUDY

First Semester	Class	Hrs.	Second Semester	Class	Hrs.
NU 330	Health Assessment	3	NU 334	Research/EBP	3
NU 330L	Health Assessment Lab	1	NU 335	Common Health Problems	3
NU 331	Fundamentals	3	NU 335L	Common Health Problems Lab	2
NU 331L	Fundamentals Lab	2	NU 336	Communities & Populations	3
NU 332	Pharmacology	3	NU 336L	Communities & Populations Lab	1
NU 333	Pathophysiology	<u>3</u>	NU 337	Psychosocial Alterations	2
			NU 337L	Psychosocial Alterations Lab	<u>1</u>
	TOTAL	15		TOTAL	15
Senior Year (30)					
NU 401	Care of Women, Children, Families	4	NU 404	Transitions to Professional Practice	2
NU 401L	Care of Women, Children, Families Lab	2	NU 404L	Transitions to Professional Practice Lab	3
NU 402	Acute Health Alterations	3	NU 405	Complex Health Alterations	4
NU 402L	Acute Health Alterations Lab	3	NU 405L	Complex Health Alterations Lab	2
NU 403	Health Policy & Finance	<u>3</u>	NU 406	Preparation for Professional Licensure	<u>4</u>
	TOTAL	15		TOTAL	15

RN to BSN PROGRAM OPTION

The BSN Program also offers a RN to BSN Program Option for licensed registered nurses holding an Associate of Science or Diploma in Nursing degree who desire to advance their education. This program allows RNs to pursue a program of study, on-line, to obtain a Bachelor of Science in Nursing degree in two semesters of full-time study. Applicants are required to follow the same admission procedures as any other applicants entering the University and the Bachelor of Science in Nursing Program. Applicants who have completed the 60 hour Lower Level prerequisite course requirements with a grade of “C” or better are eligible to apply for admission to the RN to BSN Program Option.

ADMISSION CRITERIA AND REQUIREMENTS FOR THE RN TO BSN PROGRAM OPTION

1. a copy of a current unencumbered registered nurse (RN) license.
2. be eligible for undergraduate admission to Alcorn State University;
3. submit an official high school transcript or documentation of GED;
4. submit official transcript(s) from each college/university attended;
5. must also have at least a grade of C in each prerequisite course and an overall grade point average of 2.0 on a 4.0 scale;
6. have a cumulative grade point average (GPA) of 2.0 or higher on a 4.0 scale on transferable college credits;

7. complete an Alcorn State University Application for Undergraduate Admission;
8. complete an Application for Admission to Undergraduate Nursing Programs; and
9. complete lower level prerequisites for entering to the Upper Level Program of Study. Lower level prerequisites must be completed and documented (via transcript) by each applicant prior to the anticipated date of enrollment in the first clinical nursing course.

PROGRAM OF STUDY: RN to BSN PROGRAM OPTION

First Semester	Class	Hrs.		Second Semester	Class	Hrs.
NU 4220OL	Health Assessment	3		NU 4360OL	Nursing of Communities/Populations	3
NU 4220LOL	Health Assessment Lab	1		NU 4360LOL	Nursing of Communities/Populations Lab	1
NU 431OL	Scholarly Writing	4		NU 437OL	Research II	4
NU 432OL	Pathophysiology	3		NU 438OL	Nursing Leadership/Management	5
NU 433OL	Research I	3		NU 438LOL	Nursing Leadership/Management Lab	1
NU 434OL	Enhancement Pro. Role	3		NU 439OL	Health Policy and Finance	3
	TOTAL	17			TOTAL	17

Twenty-six (26) hours of credit is awarded to each RN to BSN student as credit-by-examination hours. To receive credit for the 26 hours, each student must pay a fee to the Business Office on the Lorman Campus during the first semester of enrollment. A receipt of payment must be provided to the Bachelor of Science in Nursing Program by mid-term of the Fall Semester or RN to BSN students will not be allowed to register for Spring Semester courses.

Only Registered Nurses who have been admitted into the RN to BSN Program Option are eligible to register for online nursing courses.

COURSE DESCRIPTIONS

Agribusiness Courses

AB 366 3-0-3 Elementary Methods of Quantitative Analysis in Agribusiness: This course is designed to develop broad-based quantitative skills useful in decision-making and research situations in the agribusiness and agriculture-related industries. Emphasis will be placed on the use of elementary calculus and statistical methods applied to selected economic and managerial problems; linear and nonlinear relationships; mathematical models and their applications in agribusiness; case and applied problems related to agribusiness and agriculture.

AB 392 3-0-3 Agribusiness Marketing: This course covers a systematic examination of market structure, conduct and performance in the various sub- sectors of production agriculture and the agribusiness system. Special attention will be given to the following: factors affecting prices, study of marketing channels and agencies, agricultural and agribusiness cooperatives, and strategies for managing the marketing mix. This course is cross-listed with AE 356.

AB 395 3-0-3 Agricultural Commodity Futures: This course introduces students to the theory and practice of commodity futures and options. The course covers the fundamentals of futures contracts and trading, basis and theoretical price relationships, market equilibrium and performance, commodity futures hedging, options on futures and regulations and policies affecting futures markets. **Pre-requisites:** AE 213, AE 346, AE 356 or AB 392.

AB 472 3-0-3 Risk Management in Agribusiness: This course is designed to teach students techniques and procedures used in agriculture and agribusiness to address production, marketing, financial and operational risks. The course involves intensive coverage of production and marketing contracts, enterprise diversification, crop insurance through government programs and the private sector, commodity futures hedging, financial planning and management as well as other efficient risk management strategies used in liberalized agricultural markets. **Pre-requisite:** AB 395.

AB 491 3-0-3 Agribusiness Management: Intensive study of management concepts and techniques applied to decision-making situations and problems encountered by agribusiness firms. Emphasis is placed on agriculture businesses and firms in the transportation, storage, manufacturing and distribution of agricultural inputs, products and services.

AB 493 3-0-3 Farm and Ranch Appraisal: Study of factors that affect the value and price of agricultural land and other real estate. Various approaches used in real estate valuation are covered. Students are required to do the appraisal of a farm, ranch or home and prepare an appraisal report.

AB 494 3-0-3 Agribusiness Internship: This course must be taken by all agribusiness majors between the sophomore and senior year. The course is taken by correspondence while the student is completing internship training with an agribusiness firm or government agency. The student's performance is evaluated by the advisor on campus and the supervisor in industry. All students are required to write and present an internship report.

Accounting Courses

AC 212 3-0-3 Accounting Survey: The purpose of this course is to provide the student with basic financial and managerial accounting skills, knowledge and abilities that will enable the student to effectively use general purpose financial statements prepared in conformity with Generally Accepted Accounting Principles as a fundamental element in the students business management decision making process. Emphasis is on understanding the meaning and value of the balance sheet, income statement, statement of cash flows, budget and cost concepts. **Pre-requisite:** open enrollment.

AC 213 3-0-3 Principles of Financial Accounting: The purpose of this course is to provide the student with the basic financial accounting skills, knowledge, and abilities that will enable him/her to effectively use general purpose financial statements prepared in conformity with Generally Accepted Accounting Principles as a fundamental element in the student's business management decision making process. Emphasis is on understanding the meaning and value of the balance sheet, income statement, and statement of cash flows. **Pre-requisite:** open enrollment.

AC 214 3-0-3 Principles of Managerial Accounting: The purpose of this course is to provide the student with the basic managerial accounting skills, knowledge, and abilities that will enable him/her to use managerial accounting information as a basic element in the student's business management decision-making process. **Pre-requisite:** AC 213.

AC 315 3-0-3 Intermediate Accounting I: Intermediate Accounting I is the first of a two course sequence in accounting. The purpose of the course is to provide the student with the advanced level of knowledge, skills, and abilities needed to effectively apply Generally Accepted Accounting Principles to the process of preparing and presenting general-purpose financial statements Students must concurrently enroll in AC 338 Accounting Information Systems. **Pre-requisite:** AC 214.

AC 316 3-0-3 Intermediate Accounting II: Intermediate Accounting II is the second of a two-course sequence in accounting. The purpose of the course is to provide the student with the advanced level of knowledge, skills, and abilities needed to effectively apply Generally Accepted Accounting Principles to the process of preparing and presenting general purpose financial statements. **Pre-requisite:** AC 315.

AC 338 3-0-3 Accounting Information Systems (Required for Accounting Majors): This course examines the capture, processing, storage, and retrieval of financial transactions and reporting through the accounting cycle. Relational data structures and computerized accounting systems are explored through the use of desktop database applications. The course also enumerates financial control mechanisms and practices in accounting information systems. **Pre-requisite:** AC 214.

AC 355 3-0-3 Cost/Managerial Accounting: The purpose of this course is to provide students with the level of knowledge and skills needed to apply cost/managerial accounting principles in the process of preparing, presenting, and interpreting management reports and behavioral issues. This course deals with topics in corporate financial management, working capital, strategic issues in corporate financing, planning, and control, and performance evaluation. **Pre-requisite:** AC 214.

AC 356 3-0-3 Non-profit Organization Accounting: This course provides a basic knowledge in the theory and practice of accounting as it relates to state and local governments, colleges and universities, health care providers, and other not-for-profit entities. **Pre-requisite:** AC 214.

AC 385 3-0-3 Income Tax Accounting I: The purpose of this course is to provide the student with the level of knowledge of Federal Income Tax laws and regulations needed to effectively assess the effect of those laws and regulations in the process of solving complex, multidimensional business management problems. **Pre-requisite:** AC 214.

AC 386 3-0-3 Income Tax Accounting II: Studies in federal tax laws and related issues concerning the tax treatment of partnerships, limited liability companies (L.L.C.), corporations, gifts, estates, and trusts. **Pre-requisite:** AC 385.

AC 408 3-0-3 Fraud and Forensic Accounting: This course will introduce students to a variety of fraud topics, including occupational fraud & fraudulent financial reporting. In addition, the students will explore the foundations of forensic accounting, including fraud examination techniques. **Pre-requisite:** AC 316.

AC 427 3-0-3 Advanced Accounting I: The course covers advanced topics in financial accounting including dilutive securities and earnings per share, theory of revenue recognition, income taxes, pensions and post-retirement benefits, leases, changes and error analysis, cash flows, and full disclosure in financial reporting. **Pre-requisite:** AC 316.

AC 428 3-0-3 Advanced Accounting II: The course covers formation, operations, termination and liquidation of partnerships; accounting for investments; consolidated financial reporting; and, reporting foreign currency transactions and hedging foreign exchange risk exposure. **Pre-requisite:** AC 427.

AC 478 3-0-3 Auditing: The purpose of this course is to provide the student with the basic level of knowledge, skills, and abilities needed to effectively apply Generally Accepted Auditing Standards to the process of auditing and reporting on general-purpose financial statements. **Pre-requisite:** AC 316.

AC 480 3-0-3 Seminar in Managerial Accounting/Finance: The purpose of this course is to ensure that students majoring in Accounting develop appropriate knowledge, skill, and abilities in innovative managerial accounting/finance trends and techniques that are not covered elsewhere in the accounting curriculum due to the time lag between implementation of “best practices” in managerial accounting/finance and subsequent textbook coverage.
Pre-requisites: AC 316, AC 338, AC 355, AC 427, and Senior standing.

Agricultural Economics Courses

AE 111 3-0-3 Fundamentals and Concepts in Agriculture: This course is taken or challenged by all students majoring in Agriculture. The course may be challenged by any student. This course is designed to provide those competencies and experiences needed by students in Agriculture, which will assist the student in his/her achievement in subsequent courses taken and in the world of work.

AE 213 3-0-3 Principles of Agricultural Economics: This course teaches fundamental concepts and theories of microeconomics. It applies economic principles to current problems and issues in agriculture and agriculturally related industries. General economic principles are covered such as supply and demand relationships, microeconomics versus macroeconomics, elasticity and introduction to production economics.

A primary mission of the course is to prepare students for more advanced courses in economics, agricultural economics, agribusiness and technical agriculture.

AE 215 3-0-3 Agricultural Finance: A study of financial concepts and principles that are used in managing the financial resources of a firm. Specific attention will be given to financial management problems related to the operation of agricultural businesses, capital and credit needs of farmers, agencies supplying credit, problems of borrowers and lenders, insurance and taxation.

AE 325 3-0-3 Farm Records and Accounts: This course focuses on developing a basic understanding of the interaction between physical and economic phenomena applicable to the allocation and use of resources, and techniques for developing solutions from the standpoint of improving the efficiency of the farm business. Specifically, the course is designed to introduce students to farm record keeping and accounting principles; provide an in-depth discussion of how farm records and accounts affect the decision-making process and farm management; explain pertinent and relevant economic concepts and principles that affect farm planning and management, and discuss different aspects of enterprise budgeting in whole farm planning.

AE 346 3-0-3 Agricultural Price Analysis: This course provides students with an understanding of the complex array of forces that influence the level and behavior of agricultural and other commodity prices. It also introduces students to empirical studies and analytical techniques that are useful in predicting economic changes or the economic consequences of price behavior and changes. Although the agricultural sector is a declining component of most national economies, agriculture and agricultural product prices remain important both economically and politically. They strongly influence the level of farm income and in many countries, the level of food and fiber prices are important determinants of consumer welfare and the amount of export earnings.

AE 356 3-0-3 Marketing of Agricultural Products and Cooperatives in Agriculture: This course provides a clear understanding of pure and applied principles involved in the marketing of agricultural commodities and to examine how producers, consumers, and middlemen are affected by the marketing process. To study the methods followed and agencies engaged in marketing farm products, services performed, factors affecting prices, and a study of market channels, to marketing agricultural products through cooperatives. Principles underlying the establishment and operation of cooperatives will be given special consideration.

AE 365 3-0-3 Microeconomics in Agriculture: Develop understanding of and appreciation for differences in trade policies, agricultural systems, resource endowments, populations and production possibilities in Developed and Lesser Developed nations; build understanding of theory and policy options that are likely to help resolve food availability problems; complete an intensive study of the overall economic/ agricultural sector in a selected country or region of the world and identify policies which might help resolve problems of economic growth and nutrition.

AE 438 3-0-3 Research in Agricultural Economics: This course will focus on research philosophy and techniques, collecting data, handling data and evaluating studies in agricultural economics. It is specifically designed to improve student research writing proficiency as well as to give students a broad understanding of the philosophy of research and of research techniques in agricultural economics.

AE 463 3-0-3 Agricultural Statistics: This course emphasizes the basic ideas and procedures of statistical analysis as applied to economic and business problems in agriculture. Special attention will be given to the nature and use of statistical data, measures of central tendency, dispersion and other aspects of distribution, statistical inference, regression and correlation analysis. This course presupposes an introductory course in basic statistics. **Pre-requisite:** EC 307 or consent of instructor.

AE 467 3-0-3 Land Economics: This course provides for a study of the ways in which the use of land is affected by physical, institutional, and economic factors. Consideration is given to farm land prices, rents, taxes, tenancy, transfer of land, procedures in acquiring land, conserving and improving land. The latter phase of this course is devoted to farm law, and a brief study of some legal rules and procedures that are of particular importance to farmers.

AE 470 3-0-3 Consumer Economics: A study of the decision making of family units within the frame of reference provided by modern economics, while outlining the roles of consumers, producers and the government in our economic system. The remainder of the course focuses, the economic theory of a household's consumption, the relationship between consumption and saving and their effects upon income, demand and price in relation to types of market structure the contributing factors that influence an individual consumer's purchasing habits, personal finance and effective personal budgeting.

AE 475 3-0-3 Production Economics: This course will focus on economic analysis of agriculture production, including theory of the farm resource, allocation, production and cost functions, input-output analysis, farm size, enterprise combinations, tenure arrangements, risk, and decision making.

AE 478 3-2-4 Farm Organization and Management: A study of the principles underlying the successful organization and management of the farm as a business unit. Stress is placed upon the types and systems of farming followed, factors affecting the combination of enterprises, and factors affecting returns from farming. Field trips to actual farms will be taken during the course.

AE 488 3-2-4 Agricultural Problems and Policies: A critical study of agricultural problems past and present that have involved various levels of government action. The development of various programs and agencies that have worked to solve these problems will be considered. Special attention will be given to important problems common to small farmers and how government policies have affected these farmers.

AE 495 3-0-3 Cooperatives for Limited-Resource People: A study of the organization and operation of cooperatives for limited-resource people. To identify the problems and opportunities associated with women and men, who united voluntarily to meet their economic, social and culture needs and aspirations through a jointly owned and democratically controlled enterprise.

AE 497 3-0-3 Seminar in Agricultural Economics: This seminar is designed to introduce students to current topics/events in Agricultural Economics. This seminar also serves as a forum for students to present their final papers to faculty and students.

Agricultural Engineering Courses

AG 315 1-4-3 Farm Mechanics I: This course is designed to provide information necessary for planning, operating and maintaining a vocational agriculture or farm mechanics facility.

AG 316 1-4-3 Farm Mechanics II: Emphasis will be placed on the development of orderly and safe laboratory procedures for many practical skills to be developed. **Pre-requisite:** AG 315.

AG 418 1-4-3 Farm Surveying and Drainage: Develop understanding of irrigation and drainage problems concerning ditches and wells. The use of survey or leveling equipment will be applicable to this course as fields are prepped for irrigation systems. Emphasis will be placed on the location, design, and construction of drainage systems on the farm and land surveying for acre and mapping farms.

AG 437 1-4-3 Agricultural Machinery: The care, operation, and maintenance of farm machinery, with emphasis on agricultural equipment.

AG 438 1-4-3 Agricultural Farm Building: Planning, maintaining, laying out, and constructing farm buildings and structures. **AG 439 1-4-3 Internships** This internship will provide students with industry, government or academic settings for direct work experience.

AG 439 1-4-3 Internship: Work experience.

AG 448 1-4-3 Terracing (Water Management): This course details the field practice of laying out, constructing, and maintaining terraces, terrace outlets and diversion ditches; as a soil conservation practice applied to prevent rainfall runoff on sloping land from accumulating and causing serious erosion.

AG 458 1-4-3 Special Problems: This is primarily for students who desire to develop their skills in farm shop.

AG 468 1-4-3 Advanced Problems in Agricultural Engineering: The process of design is presented along with methods to solving engineering problems, manipulations and presentations of engineering data, and practical engineering concepts. Primarily for in-service teachers who have a need for improving their abilities in certain areas of farm mechanics.

AG 477 1-4-3 Agricultural Power and Machinery: The care, operation and maintenance of farm machinery with emphasis in mechanization and cybernation.

AG 478 1-4-3 Agricultural Power and Machinery: A continuation of AG 477.

AG 480 1-4-3 Small Gasoline Engines: The care and maintenance of small two cycles and four cycle engines.

AG 484 1-4-3 Agricultural Mechanics and Technology: This course is concerned with designing and design modification of agricultural machinery.

AG 485 1-4-3 Agricultural Power and Machinery Management: A course developed to enhance skills in efficient selection, operation, repair and maintenance, replacement, and management of agricultural machinery. The principles of operation and repair of agricultural hydraulic equipment and current and future trends in agricultural machinery design and technology will also be emphasized.

AG 486 1-4-3 Agricultural Seminar: A review and discussion of current topics in Crop Production and Soil Management. Students will report on and discuss recent literature and current investigations relative to the Crop Production and Soil Management and preparation of reports on selected topics.

AG 499 1-0-3 Thesis Research/Thesis: This course will introduce students to the rules governing the development of a thesis document from scientific research. Students will be required to develop short papers form topics. Further, students will be presented with strategies of developing a research project that can be written in thesis format. Extensive exercises requiring independent topic research is required. Writing styles and experimental design will be emphasized.

Agricultural Education Courses

AN 300 3-0-3 Introduction to Agricultural Communications: This course designed to prepare students to understand, analyze, and communicate about complex issues in food, agriculture and the environment. Students will be provided a foundation in basic and advanced communication theories, models and practices that apply within agricultural settings.

Introduce students to the related fields of employment including, but not limited to, public relations, sales management, marketing management and communications management.

AN 315 3-0-3 Principles and Philosophy of Teaching Vocation Education: This course provides opportunities for students with an interest in teaching to develop skills, strategies, and techniques used for instructions at various grade levels. Instruction addresses the legal and social aspects of vocational education; objectives, ideals, principles, values, philosophies, and standard practices employed in training for specific vocations. Explore the principles of learning and teaching, child guidance, classroom management, growth and development of children, curriculum development, and issues in education

AN 316 3-0-3 Special Methods of Teaching Agriculture: The primary goal of this course is to prepare students in methods of teaching vocational agricultural education to K-12 students. The course focuses on methods of active learning and strategies for managing student behavior and utilizing instructional technology that engages all students in school and community based agriculture programs. The student will participate in observation and instruction in a high school classroom, leadership development activities of the FFA, and supervised agriculture experience activities.

AN 318 3-0-3 Career Education: This course provides students with background information relevant to careers and career education with emphasis in teaching on the secondary level. Allows students to develop knowledge and skills regarding other career opportunities, personal development, globalization, industry standards, details, practices and expectations.

AN 320 3-0-3 Leadership: This course will actively engage students in the acquisition of information about historical and contemporary theories, concepts, and issues associated with leadership. Students will be exposed to the nature of leadership through presentation of objective material, through group activities, and through laboratory exercises. The course assist students in developing a knowledge and understanding of leadership theory and basic skills required to perform effectively in leadership positions.

AN 437 3-0-3 Directed Teaching in Agriculture: This course employs methods, techniques, experience, and practice of teaching agriculture in-school and out-of-school students with much emphasis given to advising FFA and managing a high school Department of Agriculture. Develops the ability to plan, manage, develop, and evaluate curricula (Student Teachers Only).

AN 459 3-0-3 Advanced Agricultural Education: This course is designed primarily for in-service teachers of Vocational Agriculture and county agriculture educators. It provides for a review of course building and program planning for a specific community.

AN 465 3-0-3 Planning Instructional Programs for Out of School Students: This course is designed to develop and implement programs for adults. Provides instruction in the planning, organization, and management of several types of vocational education facilities and an introduction to the different organizational and delivery systems used in Vocational Education programs. Special emphasis will be given to students who plan to teach Vocational Agricultural Education and work with Cooperative Extension.

AN 468 3-0-3 Program Building: This course provides for a review of teaching programs for in school and out of school adult classes in vocational agriculture; the building of community programs of work and the organization of community groups for the execution of community programs.

AN 470 3-0-3 Cooperative Education: This course covers problems and practices of the extension and the analysis of procedures for developing and implementing Agricultural Cooperative Programs with emphasis on the high school level. Additional topics will include adaptations for disadvantaged students, motivation and learning environment management, and adult learners.

AN 478 3-0-3 Extension Organization and Methods: This course provides for a review of problems and practices of extension educators. Develop and/or induce innovations which help to resolve problematic situations.

AN 479 3-0-3 Advanced Agricultural Education: This course is designed primarily for in-service teachers of Vocational Agriculture and county agriculture educators. It provides for a review of course building and program planning for a specific community.

AN 480 3-0-3 Problems and Trends in Vocational Education: A survey of problems and developments in Vocational Education as indicated by recent legislation and research. The literate will be selected to focus attention on current and future trends regarding organization, course content, and procedures in Vocational Education at the secondary school level. Students are encouraged to make special studies in their particular areas of interest. (Seniors Only)

AN 484 3-0-3 Occupational Information: An introduction and exploration of the world of work; a study of principles, classification and content inherent to the various occupations in agriculture with emphasis directed toward teaching.

AN 487 3-0-3 Vocational Education Curriculum and Techniques of Teaching the Rural Disadvantaged: An analysis vocational curriculum and teaching techniques with emphasis directed towards special needs of the disadvantaged and the handicapped.

AN 491 3-0-3 Research or Independent Study: This course is limited to superior senior agricultural students who are invited to join the honors program.

AN 492 3-0-3 Independent Study: This course is a continuation of course AN 491.

AN 493 1-0-1 Agricultural Problems: This course embraces a study of problems and research in agriculture. Special emphasis is placed on communication among various professions, industry, and government. Emphasis will be placed on proper procedures in seeking employment. (Seniors Only).

Art Courses

AR 214 3-0-3 Art Appreciation: An introductory course in art designed to assist students in gaining a broad understanding of the visual arts. Material is presented in a slide/lecture format with informal discussions. The aim is to increase awareness of and responsiveness to visual art in order to integrate this knowledge into everyday life.

AR 231 0-4-3 Drawing: Beginning drawing as a foundation course with emphasis on the figure or still life depending on the background of the student and/or the special needs of his/her major.

AR 232 0-4-3 Drawing: A continuation of AR 231 with emphasis on objects and figures arranged in exterior and interior environments using linear perspective. **Pre-requisites:** AR 231.

AR 310 0-4-3 Three-Dimensional Design: Exploration of a variety of techniques and materials - both conventional and unconventional - which lead to a fuller understanding of form and design.

AR 311 0-4-3 Ceramics: An introduction of clay emphasizing three-dimensional form and design.

AR 327 3-0-3 Art for Teachers: An introduction of the foundations of art through drawing and design application to the elementary school programs.

AR 341 0-4-3 Painting: An introduction to painting styles and color theory.

AR 422 0-4-3 Crafts: Gain practical experience by using a variety of craft material and processes. See, study, feel, and make art and craft projects.

Animal Science Courses

AS 100 3-0-3 Introduction to Land-Grant Program: This course covers the concepts and issues important for early orientation of all students considering a career in agriculture and life sciences, a review of state, national, and international agricultural issues, and a historical review of land grant programs.

AS 103 1-4-3 Poultry Production: This course provides an introduction to the, poultry industry. Topics include anatomy and physiology, reproduction, incubation, environmental issues, and husbandry. Upon completion, students should be able to demonstrate a basic understanding of poultry production and the economic and environmental impact of the poultry industry locally, regionally, state-wide, and internationally.

AS 103L Poultry Production Lab: This course will provide real-time hands on learning with the practices discussed in AS103 - Poultry Production class.

AS 111 3-0-3 Poultry Production: This course provides an introduction to the, poultry industry. Topics include anatomy and physiology, reproduction, incubation, environmental issues, and husbandry. Upon completion, students should be able to demonstrate a basic understanding of poultry production and the economic and environmental impact of the poultry industry locally, regionally, state-wide, and internationally.

AS 111L Poultry Production Lab: This course will provide real-time hands on learning with the practices discussed in AS 111- Poultry Production class.

AS 105 3-0-3 Milk and Milk Products: This course is an introduction to the manufacture of dairy products. Dairy processing procedures from the farm, through the dairy plant, and to the consumer are studied.

AS 213 1-4-3 Animal Production: This course is an introduction to the role of farm animals in providing food and other products to humans. A study of general principles and practices, including basic terminology common to animal science, common breeds of farm animals, basic principles of feeding, reproduction, breeding and management of farm animals will also be covered. Special emphasis will be placed on the development of the livestock industry and producing animals fit for market.

AS 213L Animal Production Lab: This course will provide real-time hands on learning with the practices discussed in AS213- Animal Production class.

AS 214 3-0-3 Dairy Production: This course is an introduction to the production phase of the dairy industry. Topics covered include animal selection, feeding, breeding, herd health, and management practices important to quality milk production.

AS 214L Dairy Production Lab: This course will provide real-time hands on learning with the practices discussed in AS214 - Dairy Production class.

AS 216 1-2-3 Swine Production: This course will deal with the importance and characteristics of the U.S. Swine Industry. Emphasis will be placed on Swine enterprises, building, and systems of production, management of breeding herd, environmental control, selection or replacements, feeding, diseases, and marketing.

AS 223 1-4-3 Dairy Production: The mild production, feeding, judging, fitting, breeding and management of dairy animals for the market.

AS 228 3-0-3 Meat and Livestock Judging: This course aims to provide students with knowledge of the procedures for evaluating, selecting, grading and judging breeding animals and slaughter animals, their carcasses and their wholesale cuts.

AS 228L Meat and Livestock Judging Lab: Students will learn to read and understand a livestock market report, apply the USDA standards for livestock and carcass grades used in pricing and marketing, understand the relationship of live and carcass grades and their roles in value determination and marketing of livestock and meat products, and understand and be able to use all marketing methods currently used in the beef and pork industry.

AS 233 1-4-3 Meat and Meat Products: This course is an introduction to the economic and nutritional values of meat and meat products. Topics include processing facilities, meat carcasses (major cuts and chemical composition), structure and functions of meat muscle, postmortem changes in meat muscle, factors affecting meat palatability, meat type identification, poultry slaughter and processing, chemical and physical characteristics of fish, meat, poultry and fish preservation and storage, meat and fish processed products (cured meat products, sausages, smoked meat, dried meat, canned meat, canned fish, smoked fish and dried fish products) and meat, poultry and fish by-products.

AS 233L Meat and Meat Products Lab: Students will learn to read and understand a livestock market report, apply the USDA standards for livestock and carcass grades used in pricing and marketing, understand the relationship of live and carcass grades and their roles in value determination and marketing of livestock and meat products, and understand and be able to use all marketing methods currently used in the beef and pork industry.

AS 243 3-0-3 Meats and Meat Products: Selection of meat animals, killing, cooling, cutting, curing, preserving, and cooking of meats.

AS 303 3-0-3 Livestock Judging: This course is designed to train students to visually evaluate livestock and to verbally justify their conclusions. At the end of this course, students should be able to understand the scoring system used in livestock judging contests and be able to tabulate scores, learn to prepare a logical, coherent set of notes that allow you to present an effective set of oral reasons, to present articulate oral reasons, interpret individual performance data and EPD, recognize and identify various parts of a live animal and subsequent portions of a carcass, to understand the mechanics of valuation of a market animal, and develop the confidence to compete in a structured livestock contest.

AS 313 3-0-3 Beef, Sheep and Swine Management: The goal of this course is to provide all students instruction in establishing and managing agricultural animal enterprises; includes instruction in selecting, breeding, feeding, caring for, and marketing beef cattle, swine, and sheep.

AS 313L Beef, Sheep and Swine Management Lab: This course will provide real-time hands on learning with the practices discussed in AS 313 - Beef, Sheep and Swine Management.

AS 323 2-2-3 Livestock Disease and Sanitation: This course provides an introduction to animal health and environmental factors related to the livestock industry. Topics include water and milk pollution, disinfectants and methods of disinfecting; common diseases of animals and poultry in the region, occurrence, methods of disease transmission and preventive measures of disease spread; basic knowledge of vaccination programs; and lastly, hygienic conditions and sick animal handling and isolation.

AS 326 3-0-3 Therapeutic Agents: The aim of this course is to provide students with an understanding and knowledge of therapeutic agents. The course particularly covers the mechanisms of various drug actions, the PD/PK principles that are fundamental for the therapeutic uses and safe selection of therapeutic agents in clinical veterinary practice. In addition, students will also gain knowledge of important aspects of toxicology and therapeutics.

AS 333 3-0-3 Poultry Management: This course aims to provide knowledge in management practices including physiology, breeds and breeding, health maintenance, nutrition and feeding, housing and waste management, equipment, incubation (including hatchery management) and brooding in the poultry industry. The rearing of breeder flocks, layers and broilers, records, maintenance, handling, processing and marketing of poultry products will also be covered.

AS 343 2-2-3 Physiology and Anatomy of Farm Animals: A survey of structure and function of the animal body systems and a study of their interrelationships; function of cellular components; cell division and metabolism; economically important aspects of body form and function.

AS 336 3-0-3 Parasitology of Farm Animals: This course introduces students to various parasitic problems of farm animals. It is an exploratory, first course in Parasitology designed primarily for students in animal production and health including allied disciplines. The practical aspect of the course focuses on identification of common helminthes, blood parasites and ectoparasites of farm animals.

The course shall impart control methods on students of parasitic problems of livestock in order to boost production levels. Topics to be covered include terminologies in Parasitology; study of nematode, trematode and cestodes of economics importance to farm animals; vectors and ectoparasites -lice, fleas, ticks and vector flies.

AS 343 3-0-3 Physiology and Anatomy of Farm Animals: The course is designed to introduce students to the basic and fundamental concepts of domestic animal anatomy and physiology. Topics will include a survey of structure and function of the animal body systems and a study of their interrelationships; function of cellular components; cell division and metabolism; and economically important aspects of body form and functions. By learning and understanding fundamental concepts, students will be able to apply this knowledge to other advanced Animal Science courses.

AS 343L Physiology and Anatomy of Farm Animals Lab: This course will provide real-time hands on learning with the practices discussed in AS 343- Physiology and Anatomy of Farm Animals class.

AS 346 3-0-3 Beef, Sheep and Swine Management: The goal of this course is to provide all students instruction in establishing and managing agricultural animal enterprises; includes instruction in selecting, breeding, feeding, caring for, and marketing beef cattle, swine, and sheep.

AS 346L Beef, Sheep and Swine Management Lab: This course will provide real-time hands on learning with the practices discussed in AS 346- Beef, Sheep and Swine Management. class

AS 353 2-2-3 Introduction to Nutrition: This course provides an introduction to the digestive anatomy of various species and the classes of nutrients including their digestion, metabolism and sources. Topics include nutrient requirements and feeding standards for livestock, companion animals, exotics and aquatics for purposes of reproduction, lactation, growth, work and maintenance; classes of feedstuffs, their characteristics, proper utilization, formulating rations and nutritional programs for animal enterprise

AS 363 2-2-3 Animal Management: This course provides principles of sustainable livestock management in beef cattle, swine, goat and sheep. Topics include the management of feeds/feeding, breeds/breeding, animal health and livestock economics; livestock facilities – housing / farm structures and handling facilities; general livestock routine management procedures; livestock identification; livestock records and records keeping; and disease prevention and treatments.

AS 413 3-0-3 Animal Nutrition: This course provides an introduction to the digestive anatomy of various species and the classes of nutrients including their digestion, metabolism and sources. Topics include nutrient requirements and feeding standards for livestock, companion animals, exotics and aquatics for purposes of reproduction, lactation, growth, work and maintenance; classes of feedstuffs, their characteristics, proper utilization, formulating rations and nutritional programs for animal enterprise.

AS 423 3-0-3 Livestock Breeding: The student will be introduced to basic concepts in principles of applied animal breeding and genetics for improvement of animal production. In addition, modes of inheritance and types of gene action involving simply inherited and polygenic traits will be covered, as well as mating plans and systems involving pedigree and mass selection, inbreeding, line breeding and crossbreeding. An introduction to basic genetic evaluation procedures and predictions of an animal's genetic merit for economically important traits will be presented.

AS 423L Livestock Breeding Lab: This course will provide real-time hands on learning with the practices discussed in AS487 – Livestock Breeding class.

AS 433 2-2-3 Physiology of Reproduction: This course is an introduction to the basic anatomical differences among the reproductive systems of various species and the physiological and endocrine mechanisms involved in regulation of reproduction. Some reproductive management will be included with an emphasis on traditional livestock.

AS 439 3-0-3 Internship: The objective of an internship is to gain hands-on- experience in the student's chosen field of animal science. This internship may be conducted on or off campus, however, it is desired that students have off campus internships.

AS 440 3-0-3 Internship: The objective of an internship is to gain hands-on- experience in the student's chosen field of animal science. This internship may be conducted on or off campus, however, it is desired that students have off campus internships.

AS 443 2-2-3 Principles of Dairy Manufacturing: This course focuses on the essential principles that must be mastered for a person to be effective in manufacturing dairy production work. The course covers customers, quality principles and processes, systems, information in the workplace, the business of manufacturing, and statistical process control of dairy products.

AS 453 2-2-3 Physiology of Lactation: This course covers the anatomy of the mammary gland and physiology of lactation in domestic and laboratory mammals with emphasis on dairy cattle. It also covers mammary gland health and factors affecting lactation as well as the principles and techniques in dairy herd milking management.

AS 453L Physiology of Lactation Lab: This course will provide real-time hands on learning with the practices discussed in AS 453- Physiology of Lactation class.

AS 463 1-0-0 Hatchery Management: This course provides insight in the management of hatching poultry. It will provide an introduction o\to artificial incubation and hatching, embryonic development, physiological requirements for incubation, handling of hatched eggs, hatchery layouts, scheduling, and record-keeping, microbial monitoring, post hatch chick quality, genetic flow in the poultry industry, breeder selection strategies, and layer breeder flock management.

AS 473 3-0-3 Layer Management: This senior level course is designed to assist students in learning different layer breeds, production management, housing, nutrition, feeds and feeding management and production economics of layers.

AS 478 1-4-3 Seminar in Animal Science: Senior level course designed to assist students in formatting and presenting a comprehensive seminar based on their cumulative educational experiences as emerging animal scientists. Furthermore, this course will develop student's argumentation skills. Argumentation skill is the development of logical explanations and reorganizations of opposing assertions, weights of evidence, and determination of merit for each assertion with regards to evidence. Class participation will be critical in evaluating peers and for developing a student's argumentation skills while widening student's breadth of knowledge in a wide range of topics pertaining to the animal sciences. At the conclusion of this course students will be able to: 1. Identify public speaking Dos and Don'ts 2. Generate constructive feedback to your peer 3. Summarize the basic tenants of argumentation 4. Support arguments with weights of evidence 5. Assess and report on major issues facing the animal livestock industry

AS 483 3-0-3 Feeds and Feeding: This class provides insight into the chemical composition of feedstuffs, requirements of domestic animals, utilization of nutrients, and formulating and balancing rations.

AS 485 3-0-3 Physiology of Reproduction: This course is an introduction to the basic anatomical differences among the reproductive systems of various species and the physiological and endocrine mechanisms involved in regulation of reproduction. Some reproductive management will be included with an emphasis on traditional livestock.

AS 485L Physiology of Reproduction Lab: This course will provide real-time hands on learning with the practices discussed in AS 485- Physiology of Reproduction class; including palpation and ultrasound techniques.

AS 490 3-0-3 Principles of Dairy Manufacturing: This course focuses on the essential principles that must be mastered for a person to be effective in manufacturing dairy production work. The course covers customers, quality principles and processes, systems, information in the workplace, the business of manufacturing, and statistical process control of dairy products.

Business Administration Courses

BA 111 3-0-3 Introduction to Business: This course is designed as a survey course that will expose you to business terminology, concepts, and current business issues. The intent is to develop a viable business vocabulary. These skills will be acquired by the reading materials, exercises, and research assignments in this course that simulate the workplace today. You will be able to fine tune your direction and choice of career in business. **Pre-requisite:** open enrollment.

BA 133 3-0-3 Introduction to Business Computer Applications: A hands-on course where students will learn and practice the four most popular programs within the Microsoft Office Suite (Word, Excel, Access, and PowerPoint). Upon successful completion, students will be an intermediate level user of the Microsoft Office Suite. **Pre-requisite:** open enrollment.

BA 152 3-0-3 Personal Finance: The science of handling money; it involves all financial decisions and activities of an individual or household – the practices of earning, saving, investing and spending, depending on one's income & expenses, income, living requirements and individual goals and desires. Class will explore the purchasing of financial products, ex., life and home insurance, investments in mortgages and vehicles, use of student loans, credit cards, checking and savings accounts, as well as online or mobile payment services. **Pre-requisite:** open enrollment.

BA 201 1-0-1 Professional Development I: Structured activities and workshops required to achieve institutional objectives; and to develop both strong personal qualities and skills. **Pre-requisite for business majors:** BA 111. Open enrollment for non-business majors.

BA 226 3-0-3 Introduction to Small Business Development: This is a practical hands-on business course designed for students interested in starting their own business. This course is offered for non-business majors to provide overviews of the key foundational areas such as accounting, economics, management, marketing, strategy, etc. The course focuses on the steps necessary to create, maintain, modify and market the new business from a small business owner perspective. Students will develop a business plan, find ways to secure financing and learn marketing techniques. The course will utilize Microsoft Office (MS Excel, PowerPoint and Word) to create a business plan. **Pre-requisite:** open enrollment.

BA 233 3-0-3 Business Computer Applications I: This course is to provide students with the knowledge and skills needed to use microcomputers in the process of solving complex problems encountered in a network business setting. This course is restricted to business students.

BA 237 3-0-3 Legal Environment of Business: This course introduces the legal environment and provides a study of the interaction between the business community and the legal environment through a systematic analysis, including cases, of the procedural and substantive rules of law with special emphasis placed on the jurisprudence governing commercial law, criminal law, agency law, torts, and property. Business ethics are also considered. **Pre-requisite:** open enrollment.

BA 239 3-0-3 Business Ethics: This course will focus on ethical decision making within organizations and is designed to increase sensitivity to ethical issues in business. Decision making on the individual and organizational level will be included. How businesses can alter their organizational culture to encourage ethical behavior on all levels in the organization will be discussed. The importance of business ethics to the stability and profitability of business organizations will be examined. **Pre-requisite:** open enrollment.

BA 292 3-0-3 Business Statistics: This course introduces students to basic statistical techniques & common application methods. Will cover the principles of data organization and processing- normal probability, and hypothesis testing methods. **Pre-requisite:** MA 121.

BA 300 0-0-0 Professional Development II: This course provides career orientation on internships, and other work assignments. Emphasizes networking strategies, resume development, and interviewing skills. It explores new hire qualifications, performance standards, performance appraisal process, and job rewards. **Pre-requisite:** BA 201.

BA 302 3-0-3 Introduction to Data Analytics: This course introduces analytical toolset to address modern, data-intensive business problems. The course provides an overview of the key concepts, applications, processes and techniques relevant to business analytics. Introduce SAS enterprise as a tool for business analytics methodologies to enhance business decision making. **Pre-requisite:** Junior standing.

BA 303 3-0-3 International Business: The purpose of this course is to provide students with knowledge, skills, related to the global business environment needed to function effectively as a decision maker in a modern international business enterprise. **Pre-requisites:** MK 301 and MG 301, junior classification.

BA 305 3-0-3 Introduction to Supply Chain and Logistics: Introduction to the design, operation, and control of domestic and international supply chain and logistics systems. Emphasis is placed on transportation, distribution, and warehousing in the business enterprise. **Pre-requisite:** BA 292, Junior classification.

BA 355 3-0-3 Business Research Methods: The study of complexity involved in specifying the correct research types, questions, and determining the appropriate process for collecting, analyzing, managing, and presenting information that allow managers to answer business questions in today's dynamic business world. **Pre-requisite:** BA 292, Junior classification.

BA 376 3-0-3 Business Communications: This course is designed to concentrate on the interpersonal communication process between managers and employees, especially in a global society. This course will also concentrate on the oral presentation and written communication skills. **Pre-requisites:** EN 111, EN 112.

BA 390 3-0-3 Business Internship I: The purpose of this course is to improve the student's understanding of business operations by learning the applicability and relevance of the knowledge, skills, and abilities developed in the classroom through appropriate work experience. The work experience must be pre-approved by the Associate Dean, must meet criteria established by the faculty, School of Business and must include a minimum of 200 work hours. **Pre-requisite:** Junior Standing, Consent of the Instructor.

BA 400 3-0-3 Organizational Communication: A study of the structure of communication in organizations. The goal is to apply theory and examples to improve managerial effectiveness in communication and negotiation. Problems, issues, and techniques of organizational communication are analyzed through case histories, exercises, & projects. **Pre-requisite:** MG 301.

BA 403 3-0-3 Entrepreneurial Finance, Accounting and Control: This course is designed to provide students with the ability to analyze the various processes and sources of seed and venture capital for funding a new enterprise. The course examines how innovation is funded and financial tools necessary over the life cycle of a new venture. Students will learn to perform financial analysis to determine the feasibility of financing new, transformed, and growing ventures. **Pre-requisite:** MG 378, Senior standing.

BA 409 3-0-3 Quality Management: Topics include six sigma methodology and tools, lean thinking practices and tools, process mapping, and dashboard applications for business process improvement. **Pre-requisite:** BA 305.

BA 433 3-0-3 Management Information Systems: The purpose of this course is to provide the student with the appropriate level of knowledge, skills, and abilities required to apply business computer information systems to the process of solving complex, multi-dimensional business management problems. **Pre-requisites:** BA 233, and Junior classification.

BA 437 3-0-3 Business Law: Property law, advanced contracts law, Uniform Commercial Code topics including sales, negotiable instruments/commercial paper, and secured transactions. Students who have taken BA 237 Legal Environment of Business may not substitute it for BA 437 Business Law. **Pre-requisite:** BA 237.

BA 439 3-0-3 Sports and Entertainment Law: Sports and entertainment laws and their attendant legal issues relating to the operation and regulation of the sport and entertainment industry are analyzed. An overview of relevant legal principles and business models and rules governing the sports industry are considered. Thus, laws and internal regulations of professionals, contracts law, antitrust and labor laws, personal injury and risk management, and intellectual property, namely national copyright and trademarks are reviewed. **Pre-requisite:** Junior or Senior Standing.

BA 488 3-0-3 Warehouse and Inventory Management: Explores current supply chain warehousing and global inventory issues. Topics will also include transportation management systems, advanced planning, scheduling, materials tracking and control such as radio frequency identification. **Pre-requisite:** BA 305.

BA 489 3-0-3 Logistics and Transportation: Explores carrier operations and sourcing strategies for import, export & distribution of materials & finished goods. Covers facility location and off-shoring of operations. **Pre-requisite:** BA 305.

BA 490 3-0-3 Business Internship II: The purpose of this course is to improve the student's understanding of business operations by learning the applicability and relevance of the knowledge, skills and abilities developed in the classroom through appropriate work experience. The work experience must be pre-approved by the Associate Dean, must meet criteria established by the faculty, School of Business and must include a minimum of 200 work hours. **Pre-requisite:** BA 390, and consent of the Instructor.

BA 491 3-0-3 Independent Research: This course provides an opportunity to investigate an area of specialty under the supervision of a designated faculty member. **Pre-requisites:** Junior classification, and the consent of instructor.

BA 492 3-0-3 Current Issues in Business: This course offers discussions of current issues in Business dealing with important issues pertaining to efficient management of organizations. Issues dealing with the development of leadership skills are to be addressed. Specific topics are to be selected by the instructor and may vary each semester. **Pre-requisite:** MG 301, junior classification.

BA 496 3-0-3 Supply Chain Senior Capstone Project: Student develops a final project to solve significant operational problems and identify improvement opportunities in a service or manufacturing firm using integrated supply chain management strategies. **Pre-requisite:** BA 305 and Senior standing.

BA 497 3-0-3 Data Analytics Senior Capstone Project: This course integrates student learning from the Data Analytics major courses requiring the application of learned skills in analyzing data, making predictions, and identifying, evaluating, and capturing business analytic opportunities that create value. **Pre-requisite:** BA 302 and Senior standing.

BA 499 1-0-1 Business Administration Comprehensive Seminar: Required of all school of business majors in their last semester. The course is an intensive review of a wide range of business topics representative of the business core. The course is designed to prepare the student for the mandatory exit exam given during the student's final semester. **Co-requisite:** MG 496.

Biology Courses

BI 111 3-0-3 Introduction to Biology I: (This course is for biology non-majors) A study of the principles and fundamental concepts on which the science of life is based. Emphasis is placed on the facts supporting these principles and how these principles arise from facts. The speculations and uncertainties of biology are also stressed.

BI 112 3-0-3 Introduction to Biology II: (This course is for biology non-majors) A continuation of BI 111. Emphasis will be placed on evolution and ecology, the physiological processes and the origin and classification of life. **Pre-requisite:** BI-111.

BI 113 3-0-3 Introductory Environmental Biology/Ecology: This is a basic interdisciplinary course designed to understand the environment. It is a study of the scientific and ecological principles that govern human interactions with the physical and biotic systems of the Earth. Ecosystems and their characteristics, human population dynamics, resource issues and the roles of technological and ethical decisions will be considered. The course involves field trips.

BI 113L 0-2-1 Introductory Environmental Biology/Ecology Lab: This laboratory is a component of BI 113. A laboratory course emphasizing practical experience including occasional field trips. Exercises complement lecture topics. Audiovisual aids are employed. **Co-requisite:** BI-113.

BI 121 3-0-3 General Zoology I: This course studies a diversity of animal life as well as the taxonomy, behavior, and ecology of the invertebrate animal phyla with an emphasis on adaptations that enable animals to inhabit so many ecological niches. **Co-requisite:** BI 121L.

BI 121L 0-2-1 General Zoology I Lab: Zoology laboratory work is designed to guide the students in a practical approach to understanding the concepts and systems of animals. The students will dissect the representative animals from the phyla studied in the course.

BI 122 3-0-3 General Zoology II: This course studies a diversity of animal life as well as the taxonomy, behavior, and ecology of the invertebrate animal phyla with an emphasis on adaptations that enable animals to inhabit so many ecological niches. **Co-requisite:** BI 122L.

BI 122L 0-2-1 General Zoology II Lab: Zoology laboratory work is designed to guide students in a practical approach to understand the concepts and systems of animals. Students will dissect representative animals from the phyla studied in the course.

BI 125 3-0-3 General Biology I: A study of the basic molecular and descriptive principles and generalizations of the biological sciences. Emphasis is placed on the elementary pathway in the life sciences, with regard to the functional morphology of the cell to the organism.

BI 125L 0-2-1 General Biology I Lab: Co-requisite: BI 125. Laboratory experiments demonstrating the principles presented in the lecture course. Scientific inquiry, cell structure and functions, physiology, genetics, biodiversity, evolution and ecology. Should be taken in the same semester as with BI 125.

BI 126 3-0-3 General Biology II: Designed as a continuation for BI 125, this course provides an introduction to biological models and their roles in carrying out cellular functions. The primary focus will be on cellular processes such as DNA replication, RNA transcription, and protein translation. The course will also cover the origin of life on Earth at the level of the various biological molecules such as RNA, DNA, lipids, and proteins, which interacted to form the foundation of the planet's enormous biodiversity.

BI 126L 0-2-1 General Biology II Lab: Co-requisite: BI 126. Laboratory experiments demonstrating the principles presented in the lecture course. Scientific inquiry, molecular basis for cellular mechanism such as transcription, translation, and DNA replication. The evolutionary relationships that result as a function of speciation will also be considered. Should be taken the same semester as with BI 126.

BI 191 3-0-3 Honors Biology I: This course deals with the major principles of biology from an evolutionary standpoint. The course includes topics regarding the science of biology, the nature of molecules, the chemical building blocks of life, the origin and early history of life, cell structure and membranes, energy and metabolism, photosynthesis and how cells divide (mitosis). Emphasis is placed on methods and skills.

BI 191L 0-2-1 Honors Biology I Lab: Laboratory component of BI 191. This laboratory class complements BI 191 Honors Biology and allows students to learn numerous techniques and methods (including the use of the microscope) that go along with the lecture.

BI 192 0-2-1 Honors Biology II: This course is a continuation of BI 191 Honors Biology 1. Students will study meiosis, genetics, genes and how genes work, the vertebrate body, and the circulatory, respiratory, digestive, excretory and reproductive systems.

BI 192L 0-2-1 Honors Biology II Lab: This laboratory course complements BI 192 Honors Biology and allows students to learn numerous techniques and methods that go along with the lecture. Special emphasis is placed on the dissection of various animals to study their organ systems.

BI 215 3-0-3 Comparative Anatomy: This course deals with a comparative study of structural, functional, and evolutionary aspects of various vertebrate groups. It deals with the similarity and dissimilarity of these organisms as it relates to the structural and physiological aspects of different habitats. **Pre-requisites:** BI 121, BI 122. **Co-requisite:** BI 215L.

BI 215L 0-2-1 Comparative Anatomy Lab: The activities of this course are designed to enhance the information provided in BI 215 (Comparative Anatomy). It involves the following topics: the body of vertebrates as a whole; the structural and functional aspects of protochordates and pre-vertebrates; the dissection of the dogfish shark; comparative study of the anatomy of; frog, cat, and human skeletal system, and the dissection of the cat.

BI 226 3-0-3 Developmental Biology: The study of the process by which organisms grow and develop, and is closely related to Ontogeny. Developmental biology studies the genetic control of cell growth, differentiation and morphogenesis, which is the process that gives rise to tissues, organs and anatomy, but also regeneration and aging. **Pre-requisites:** BI 121, BI 122 or BI 125, BI 126.

BI 226L 0-2-1 Developmental Biology Lab: The activities of this course are designed to enhance the information provided in BI 226 Developmental Biology. It involves the following topics: (1) cell reproduction (mitosis and meiosis), (2) the early stages of animal development, (3) the stages of frog development, (4) the stages of chicken development, (5) the stages of fetal pig development. **Co-requisite:** BI 226.

BI 300 3-0-3 Biological Chemistry: This course is designed to articulate a detailed view of the basic chemical aspects in a cell. The class starts with a review of the fundamental structures of amino acids, nucleotides, and carbohydrates. Additional consideration will be given to biochemical mechanisms that link these fundamentals together by discussing in greater detail the components and mechanisms of the central dogma: DNA replication, transcription, and translation.

BI 308 3-0-3 Introduction to Health Science: This course will familiarize students to the health fields and possibilities for a health career. Various diseases that commonly affect human will be discussed. The biological implications of these diseases will be explored. Specifically, this course will: (1) investigate the biological cause and cure for certain diseases, (2) ways in which diseases are prevented, (3) recent advancement in the treatment of various diseases.

BI 311 3-0-3 Survey of Biological Sciences: This course deals with integrated principles, theories, and techniques of biological sciences. The primary objective is to help students apply theories, principles, and techniques that have been learned in previous biology courses, as well as, expose students to actual classroom situations.

BI 318 3-0-3 Field Biology and Ecology: A study of the influence of environmental factors on the distribution of plants and animals including the interrelationships of terrestrial and aquatic ecosystems, while concentrating on biological, physical, and chemical relationships. **Pre-requisites for biology majors:** BI 121-122 or 123, BI 324, or BI 111-112.

BI 318L 0-2-1 Field Biology and Ecology Lab: This laboratory is a component for the lecture BI 318. A laboratory course emphasizing practical experience, hands-on activities, and field trips. Exercises complement the lecture topics. Audiovisual aids are employed. **Co-requisite:** BI 318.

BI 320 3-0-3 Medical Terminology: This course is designed to use a variety of pedagogical features which will aid students in developing a strong foundation in medical terminology, broaden their vocabulary, aid them in effectively communicating in the field of medicine, and provide an overview to the advanced courses in the various curricula.

BI 324 3-0-3 Botany: This course studies a diversity of plant life that includes their structure and function, systematics, plant propagation, evolution, and ecology. **Co-requisite:** BI 324L.

BI 324L 0-2-1 Botany Lab: BI 324 laboratory is the co-requisite for the lecture course BI 324 and should be taken in the same semester. Experiments emphasizing practical experience and hands-on activities are included.

BI 325 3-0-3 General Microbiology: A study of the fundamental principles of microbiology and the applications of this science. Special emphasis is placed on the relationships of microorganisms to diseases, sanitation and foods. **Pre-requisites:** BI 124/323 or BI 121/122, or BI 111/112. Note: Associate Degree Nursing students are not required to take the above listed prerequisites for BI 325.

BI 325L 0-2-1 General Microbiology Lab: This laboratory accompanies BI 325 and should be taken in the same semester. This laboratory is designed to allow students to apply basic skills and techniques that are germane to microbiology. **Co-requisite:** BI 325.

BI 326 3-0-3 Pharmacology: This course is a general survey of drugs and chemicals with reference to their action on living systems. The mechanism by which these drugs produce their effects will be emphasized.

BI 328 3-0-3 Conceptual Analysis and Critical Thinking I: A three-hour non-lab course for all students majoring in the biological sciences. The content will give the student a review of information that has specific application on diagnostic or entrance exams in the professional field.

BI 329 3-0-3 Conceptual Analysis and Critical Thinking II: This course is a continuation of BI 328 for students majoring in the biological sciences. It provides review of materials to aid the students with diagnostic testing.

BI 335 3-0-3 Human Anatomy and Physiology I: A study of structural aspects of the human body-gross and microscopic; cell contents, organization of structures, cells, tissues, organs, and systems; location and relationship of parts. **Suggested Pre-requisite:** BI 112 or BI 122 or BI 123.

BI 335L 0-2-1 Human Anatomy and Physiology I Lab: This laboratory accompanies BI 335 and should be taken in the same semester. It will emphasize laboratory applications of lecture concepts studied in BI 335. **Co-requisite:** BI 335.

BI 336 3-0-3 Human Anatomy and Physiology II: Functional aspects of the human body, homeostasis, metabolism, and unification in structures are emphasized. Physiological properties of protoplasm; functions and cellular constituents, cells, tissues, organs, and systems will be studied. **Pre-requisites:** BI 112, BI 123, or BI 122. BI 335 is recommended.

BI 336L 0-2-1 Human Anatomy and Physiology II Lab: This laboratory accompanies BI 336 and should be taken in the same semester. It will emphasize laboratory applications of lecture concepts studied in BI 336. **Co-requisite:** BI 336.

BI-348 3-0-3 Plant Physiology: This course is a study of plant functions including water retention, photosynthesis, nutrition, metabolism, growth regulation, response to environment and communication.

BI-348L 0-2-1 Plant Physiology Lab: This laboratory course accompanies the lecture course BI 348 and should be taken in the same semester. The laboratory exercises provide hands-on experiences with experiments and training in instrumental skills. Topics include: water relations, photosynthesis, nutrition, metabolism, growth regulation, response to environment and communication.

BI 355 3-0-3 General Parasitology: The objective of this course is to provide biology majors with a fundamental understanding of the morphological and physiological characteristics of organisms that live as pathogens and parasites. **Pre-requisite:** BI 122 or BI 123.

BI 355L 0-2-1 General Parasitology Lab: Laboratory component for BI 355. A lab course emphasizing practical experience with parasites. The laboratory exercises complement lecture topics. Demonstrations as well as audiovisual aids are employed. **Co-requisite:** BI 355.

BI 356 3-0-3 Parasite Ecology and Evolution: A study of the relationship between parasites and their environment, primarily, the hosts and the abiotic conditions to which some life cycle stages such as spores, eggs, and juveniles, are exposed. The symbiotic relationships and the evolutionary associates between parasites and their hosts are considered. In other words, the pattern of association among parasites, hosts, and the ecological distribution of each will be studied.

BI 356L 0-2-1 Parasite Ecology and Evolution Lab: This laboratory follows the course BI 356 and should be taken in the same semester as the course. Experiments will be conducted relative to lectures. The students will be given hands-on instruction and will demonstrate the stages of spores, eggs, and juveniles. Students will also conduct experiments using parasites, their hosts and those of different animal species.

BI 361 3-0-3 Cellular and Molecular Biology I: The course will emphasize the importance of both modern and classical biomedical research and medicine of a comprehensive understanding of cell structure and function. Upon completion of this course, students will be able to demonstrate a material understanding of the following concepts, cell organization, DNA replication, transcription, protein synthesis and enzymology, selected topics in molecular genetics including DNA recombination.

BI 361L 0-2-1 Cellular and Molecular Biology I Lab: BI 361 Lab Laboratory Experiments to support an applicable understanding of the concept areas listed in the BI 361.

BI 362 3-0-3 Cellular and Molecular Biology II: The course will emphasize the importance of both modern and classical biomedical research and medicine of a comprehensive understanding of cell structure and function. Upon completion of this course, students will be able to demonstrate a material understanding of the following concepts, gene structure, function and regulation, selected topics related to developmental systems (i.e., skeletal muscle) and the, molecular cloning and molecular tools for studying genes and gene activity.

BI 362L 3-0-3 Cellular and Molecular Biology II Lab: Lab Laboratory Experiments to support an applicable understanding of the concept areas listed in the BI 362.

BI 390 3-0-3 Environmental Biology and Ecology: This course is a study of the ecological problems of the environment with special emphasis on research techniques, conservation, and solutions; Effects of environmental pollutants on health and welfare of humans; An in- depth examination of Environmental Science and its scope toward further understand ecological and environmental interrelationships; examining various geographic regions; to gain an understanding of biodiversity and its ramifications; become familiar with land-use planning.

BI 390L 0-1-1 Environmental Biology Lab: BI 390L is a co-requisite hands-on activity based laboratory course to aid in further understanding the concepts taught in BI 390 Environmental Biology course. The students will receive training via field trips, laboratory experiments, workshops, seminars as well as through experts in the area of environmental biology. Laboratory experiments will include activities both on and off campus.

BI 391 3-0-3 Human Sexuality: This course is designed to challenge the students' knowledge of their sexual being. It allows them to assess their sexual behavior, attitudes, and feelings while keeping in mind that their sexual behavior, attitudes and feelings may conflict at various times. It is organized to test their current level of knowledge and assist them in ascertaining new knowledge through self-discovery. Various aspects of human reproduction are covered including the anatomy and physiology of each system, birth control, sexually transmitted diseases, and the phase of the sexual response cycle.

BI 400 3-0-3 Evolution: This is an introductory course into the principles and mechanisms of biological evolution. Topics will include cosmology, evidence of evolution, heredity, speciation and human evolution. Under the topic of today and beyond, we will explore genetic engineering and cloning and the impact of these subjects on evolutionary biology. Students will be expected to discuss these and other topics in class and to make presentations on assigned topics.

BI 402 3-0-3 Bioethics: The course will examine various ethical, moral and legal issues in the biological sciences. Topics will include pressing contemporary issues in health, clinical medical practice and biomedical research on both local and global levels. Students will be expected to discuss these issues. Although many current and controversial topics will be discussed, students are also expected to address particular concerns of their own choosing.

BI 403 3-0-3 Mycology: Students will study the diversity of the fungi, with an emphasis on form as related to function, and how both are integral to the evolution of perhaps the second most metabolically active kingdom of organisms. Students will be guided through their exploration of the fungi from a biological vantage which will include cellular, medical, horticultural, taxonomic, cultural, evolutionary, nutritional, and ecological perspectives.

BI 403 0-2-1 Mycology Lab: Collect and preserve six different specimens from the Basidiomycota. Three specimens should be identified to species; the remaining three should be identified to genus. Isolate and identify to order three pure cultures of fungi from different substrates. Included in the collection should be one zygomycete fungus. You will learn sterile technique, how to isolate and handle fungi from nature, and how to discern important microscopic characteristics of fungi.

BI 415 3-0-3 Computer Applications in the Biological Sciences: This course provides introduction to computer applications in the biological sciences. The three major applications involved in this course are data interpretation, presentation in appropriate formats, charts, graphs, tables, database usage, and statistical analysis.

BI 420 3-0-3 Medical Microbiology: This is an introductory course into the etiology and pathogenesis of infectious disease. It will begin with basic microbiology and describe major pathogens and the diseases they cause. Bacteria, viruses, fungi and parasites will be addressed although other nontraditional infectious agents (such as prions) will also be discussed. Major emphasis will be on those microbes associated with human infections and center on the pathophysiological mechanisms that provoke the various responses.

BI 420L 0-2-1 Medical Microbiology Lab: This laboratory accompanies BI 420 and should be taken in the same semester. This laboratory is designed to allow students to apply advanced skills and techniques that are germane to medical microbiology. **Co-requisite:** BI 420.

BI 423 3-0-3 Introduction to Biostatistics: This course provides an introduction to the methods of collection, tabulation, analysis, and application of biological data specifically related to various problem solving activities in biology using descriptive statistics, probability theory, and statistical inference.

BI 425 3-0-3 Principles of Immunology: This course is the study of the structure, function, and complex interactions associated with the immune system. Special emphasis will be placed on cellular interactions, regulation of the immune response, antibody structure and function, and the immune response to microbes. **Pre-requisite:** BI 110 or BI 325 equivalent.

BI 425L 0-2-1 Principles of Immunology Lab: Laboratory component of BI 425. This laboratory class complements BI 425 and allows students to learn, hands-on, several techniques and methods used in the field. Experiments will allow students to identify blood cells, type blood, and visualize antigen-antibody interactions in numerous ways.

BI 445 3-0-3 Genetics: The principles of heredity and its implications for man in respect to agriculture and medicine. The course also deals with the principles of classical and molecular genetics. **Pre-requisite:** BI 111-112, BI 121/122 or 124 and 327; CH 122 and CH 332 are highly recommended.

BI 445L 0-2-1 Genetics Lab: This laboratory is a co-requisite for the course BI 445 and should be taken in the same semester. The laboratory experiments will coincide with the lecture series with emphasis on epistasis, genes, mitosis and meiosis, chromosomes and Mendel's rule of inheritance.

BI 446 3-0-3 Histology: Lectures on the microscopic structure and chemical composition structures of organs, tissues, and their cell constituents. The laboratory includes the interpretation of photomicrographs of tissues and cellular structures. **Pre-requisites:** BI 215, BI 325, BI 335, and BI 336.

BI 446L 0-2-1 Histology Lab: This laboratory course complements BI 446 lecture. A basic integrated study of the microscopic and ultra-structures of the human cells and representation tissues of each of the major systems of the human body. **Co-requisite:** BI 446.

BI 449 2-0-2 Senior Project: This course involves literature review, writing a research proposal, and understanding methods of collecting, organizing, and analyzing information. Statistical methods and procedures will be discussed from a descriptive and inferential approach. As part of this course a student will be assigned a research project in the area of biological science or any topic that a student may wish to select on his/her own. The student will conduct an organized research study centering the problem or topic selected. Design and run experiments, collect data, do statistical analyses of the data, make an interpretation and write a descriptive research paper. The conduct of the research, significance of the results, and the clarity of the written research paper will form the basis for evaluation of this course. A student may select either the instructor or any other faculty member in the department as research advisor.

BI 450 1-0-1 Senior Seminar: Open to senior biology majors who have successfully completed the BI 499 course. Students with an incomplete or less than a “C” grade in BI 449 are not allowed to register for this course. Students will learn how to interpret research data, prepare various formats of data presentations including: tables, charts, graphs, histograms, etc. Students will learn effective use of PowerPoint presentations and other audio-visuals. Students will present data research information generated in their Senior Project (BI 449).

BI 453 3-0-3 Environmental Risk Assessment: This course is designed so that students can understand the basic and applied concepts of analyzing toxicological effects from chemical exposure using statistical analysis.

BI 456 2-0-2 Special Topics in Environmental Biology/Ecology: A study of selected topics dealing with developments in environmental science and/or ecology.

BI 458 3-0-3 Microbial Genetics: Students will study the synthesis and manipulation of DNA and the principles of gene expression at the molecular level in prokaryotes and eukaryotes. Among the topics that will be covered include, DNA replication, repair and the packaging of the genome into chromosomes. In preparation for this course you should have an understanding of basic college level introductory biology (BI 125/126) and one or more of the following more specialized biology course such as Microbiology, Botany, Zoology, Genetics or Biochemistry.

BI 458L 0-2-1 Microbial Genetics Lab: To provide “hands-on” experience in the investigation and manipulation of bacteria and their genes. Experiments will include chemical and transposon mutagenesis, analysis of mutants, gene transfer, and strain construction. Molecular genetic procedures such as chromosomal and plasmid DNA isolation, DNA amplification by standard or quantitative polymerase chain reaction (PCR or PCR), hybridization, gene cloning, and restriction site analysis will also be introduced.

BI 462 3-0-3 Environmental Policy: This course will deal with the laws, mandates, and regulations on environmental policy as made by the Environmental Protection Agency (EPA) and other agencies or governing bodies.

BI 468 3-0-3 Kinesiology: To further understand the anatomical and physiological aspects of kinesiology, the laboratory class will be structured so that the students will gain hands-on experience using palpation and observatory methods to examine the upper extremity of bones, joints, ligaments, muscles, and nerves. The study of the lower extremity of bones, joints, ligaments, muscles, nerves, and their functions in the various motor movements involved in games, sports, calisthenics and other physical activities.

BI 468L 0-2-1 Kinesiology Lab: To further understand the anatomical and physiological aspects of kinesiology, the laboratory class will be structured so that the students will gain hands-on experience using palpation and observatory methods to examine the upper extremity of bones, joints, ligaments, muscles, and nerves. To further understand the anatomical and physiological aspects of kinesiology, the laboratory class will be structured so that the students will gain hands-on experience using palpation and observatory methods to examine the lower extremity of bones, joints, ligaments, muscles, and nerves.

BI 481 3-0-3 Introduction to Toxicology: This course deals with the basic concepts and methods employed in toxicology. Specific topics that will be considered in this course include: toxicity testing, sub lethal effects of chemical exposure on environmental organisms, the toxicity of generic types of chemicals (such as pesticides, carcinogenic chemicals and metals) to organisms, the distribution and fate of chemicals in the environment; and the assessment of the potential hazards posed by the use or discharge of chemicals in our environment.

BI 482 3-0-3 Applied Physiology: This course will focus on the functional, pathological, and applied aspects of cardiovascular, respiratory, urinary, immune, and nervous systems. **Pre-requisites:** BI 111 and 112, or BI 125 and 126, or BI 191 and 192, and BI 335 and 336.

BI 482L 3-0-3 Applied Physiology Lab: This laboratory accompanies BI 482 and should be taken in the same semester. It will emphasize laboratory applications of lecture concepts studied in BI 482.

BI 485 3-0-3 Teaching Science in the Secondary School: This course presents the methods of teaching science in the secondary school, placing emphasis upon the integration of the curriculum and the individual in a democracy. It seeks to provide experiences leading to the creation of dynamic classroom conditions for effective teaching--essentially a special methods course dealing with techniques and procedures on the high school level. Students will be required to prepare teaching units, lesson plans, examinations, and to observe classroom teaching in nearby schools.

BI 498 3-0-3 Biology Research Instrumentation: This is a laboratory-based course where students will learn the theory and practice behind techniques and instruments commonly used in modern biological research with special emphasis on detection, quantification, and analysis of nucleic acids and proteins, enzymatic assays, fluorescent microscopy, cell structure, and aseptic technique. Students will learn basic experimental design and methods, and will be expected to present their experiences in a seminar format. **Pre-requisites:** BI 327, BI 327L, BI 300, BI 300L, or instructor's permission.

BI 500 3-0-3 Advanced Parasitology: An advanced study of the morphological and physiological characteristics of organisms that live in the vectors of the organisms.

BI 501 3-0-3 Advanced Plant Physiology: Advanced study of metabolism, mineral nutrition, absorption and translocation, respiration, photosynthesis, transpiration, plant hormones, flower parts, growth and reproduction in plants. Students will also learn about planting seeds, seed maturation, seed germination, seed storage, relation between seed and quality crop production in the field; study of fruits and seed and fruit dispersals. **Pre-requisite:** BI 124 or BI 324, CH 122. This course is specifically designed to meet the needs of agricultural and related science majors.

BI 502 3-0-3 Advanced Plant Pathology: Advanced study of selected diseases of important field and garden crops. Students study in detail representative plant diseases commonly observed on field crops, garden crops, fruit and vegetable crops caused by different pathogens, disease development, epidemiology and control of diseases. **Pre-requisite: BI 324.**

BI 503 3-0-3 Mycology: This course deals with fungi from a cultural, ecological, phylotype, and phylogenetic perspective. It will involve the taxonomy, habitat, structure, physiology, and adaption of fungi.

BI 507 3-0-3 Advanced Cellular and Molecular Biology: A study designed to provide a deeper insight and understanding of the cellular and molecular functions. Emphasis is placed on control and regulatory mechanisms of Various cellular activities such as metabolic, genetic, and bio-energetic mechanisms.

BI 509 3-0-3 Current Literature Topics in Biology: This course deals with current and emerging problems of global significance that are identified through scientific research. It takes under consideration both scientific and technical problems that exist currently. It discusses consequences and opportunities available through scientific and technological capabilities of today's world. Students study the contributions made towards resolution of these problems. Students study department faculty members' representative research publications.

BI 515 3-0-3 Computer Applications in Biology: This course provides introduction to computer applications in the biological sciences. The three major applications involved in this course are data interpretation, presentation in appropriate formats, carts, graphs, tables, database usage, and statistical analysis.

BI 522 3-0-3 Natural History of the Animal Kingdom: This course is designed to provide the student with information on animal density and diversity. It shows the student the basic principles that control population dynamics, animal dispersal, evolutionary trends, and the changes that have occurred over centuries of animal development. The focus of the course deals with global changes and how these changes are causing the species diversity that exists today.

BI 523 3-0-3 Advanced Biostatistics: Methods of collection, tabulation, analysis, and application of biological data specifically related to various problem solving activities in biology using descriptive statistics probability theory and statistical inference.

BI 525 3-0-3 Advanced Immunology: Basic mechanism of immune responses will be presented from a theoretical basis. Students will be assigned several research articles to read covering both classic and current studies in immunology and will discuss the experiment data and conclusions in class. Students learn the historical significance of these studies as well as, the methodology used to determine the results.

BI 526 3-0-3 Advanced Pharmacology: This course is designed to study various classes of drugs relative to their specific mechanisms of action and clinical applications.

BI 531 3-0-3 Advanced Invertebrate and Vertebrate Zoology: This course is designed to provide the student with a broad background dealing with the taxonomy, locomotion, feeding habits, mode of life, and adaptive biology of invertebrates. In addition, anatomical, physiological, and embryological descriptive details are discussed and compared for various groups of animals.

BI 536 3-0-3 Bioethics: This course introduces students to the history of bioethics, role of various theories and approaches in medical, environmental and technological bioethics as well as critical issues related to novel technologies including: genetically engineered food crops, cloning, stem cell therapies, and nanotechnology. This course will also include discussions with examples on ethical questions that arise in the relationships between life sciences, biotechnology and medicine.

BI 540 3-0-3 Molecular Genetics: This course explores the molecular basis of heredity with a focus on the structure and function of genes, mutations and their effect on the phenotype, genetic analysis of prokaryotes and lower eukaryotes, gene transfer, and selection, plasmids, plasmid analysis, genetic recombination, and non-Mendelian patterns of inheritance, particularly the organization of the mitochondrial genome. In the laboratory component, students learn basic molecular genetics techniques such as: bacteria transformation and selection, plasmid preparation, restriction analysis of plasmids, agarose gel electrophoresis, endpoint polymerase chain reaction, primer design, and basic yeast genetics techniques: mating, sporulation, diploid selection, tetrad dissection and allele segregation. **Prerequisites:** BI 327, 327L; Cell Biology, CH 331 & CH 331L; Introduction to Biochemistry, and BI 445, BI 445L Genetics.

BI 546 3-0-3 Advanced Histology: An advanced study of the microscopic and chemical structures of organs, tissues, and their cellular constituents.

BI 547 3-0-3 Advanced Field Biology and Ecology: An advanced study of environmental factors influencing the distribution of plants and animals including the interrelationships of terrestrial and aquatic ecosystems, concentrating on biological, physical, and chemical relationships.

BI 550 3-0-3 Graduate Research Methods and Seminar: A survey of current research articles with emphasis on techniques, the scientific method, and basic research. Lectures will cover the fundamentals of research and the study of several scientific manuscripts encompassing various areas of biology. Students will also be required to present data from other published scientific papers as a part of a seminar series. Students will be introduced to selected high precision research methodologies adopted in the laboratories of departmental faculty members.

BI 560 3-0-3 Advanced Modern Problems in Biology: This course encompasses numerous areas concerning new and developing issues in biological sciences. Students are required to address several topics assigned in class and in addition, describe what they think are “modern problems.” Although the course is designed to allow students independence in selecting certain topics, it also enables them to learn how to read and interpret scientific articles and to present those articles to the class.

BI 581 3-0-3 Advanced Toxicology: This course is designed to fill the need for a comprehensive source of information concerning toxicology. It presents a definite description of basic concepts and methods employed in environmental toxicology studies as well as examples of typical data and its interpretation. Specific topics covered in this course include: toxicity of genetic types of chemicals (such as pesticides and metals) to organisms, the distribution and fate of chemicals in the environment.

BI 585 3-0-3 Methods of Teaching Science: This course presents the methods of teaching science in the secondary school, placing emphasis upon the integration of the curriculum and the individual in a democracy. It seeks to provide experiences leading to the creation of dynamic classroom conditions for effective teaching – essentially a special methods course dealing with techniques and procedures on the high school level. Students will be required to prepare teaching units, lesson plans, examinations, and to observe classroom teaching in nearby schools.

BI 590 3-0-3 Advanced Environmental Biology: An advanced study of specific ecological problems, research methodology and techniques, and solutions of local and national environmental problems.

BI 591 3-0-3 Advanced Anatomy and Physiology: This is a one-semester graduate course in Human Anatomy & Physiology. This course is designed to provide advanced concepts in human anatomy and physiology for students who plan to pursue careers in education, biology, biotechnology, medical technology, dentistry, physical therapy, nursing or medicine.

BI 597 3-0-3 Special Research Project: This course involves individual investigation of a specific problem in biology or related area. This includes extensive survey of literature to write a professional paper based on research data. The student will work under the supervision of biology Faculty Research Advisor (FRA) and bound copies of the completed work will be submitted to the Office of Graduate Studies as a requirement of Non-thesis M.S. degree program. Consent of the FRA is required.

BI 598 3-0-3 Biology Research Instrumentation: This is a laboratory-based course where students will learn the theory and practice behind techniques and instruments commonly used in modern biological research with special emphasis on detection, quantification, and analysis of nucleic acids and proteins, enzymatic assays, fluorescent microscopy, cell structure, and aseptic technique. Students will learn basic experimental design and methods, and will be expected to present their experiences in a seminar format. **Pre-requisites:** BI 327, BI 327L, CH 330, CH 330L, or instructor's permission.

BI 599 3-0-3 Thesis I: This course is designed to prepare candidates for a Master of Science Degree Program. It assists students in preparing a research proposal that is a Pre-requisite before beginning actual thesis research work.

BI 600 3-0-3 Thesis II: This course is required for students in the Master of Science Degree Program. Its main thrust is to assist students in preparing a written document of their research work in an acceptable thesis format. Students will defend their research work before the graduate committee.

Bio-Medical Engineering Courses

BM 101 3-0-3 Introduction to Bio-Medical Engineering: Students in this course get introduced to the role of biomedical engineering technologies in healthcare management.

BM 401 3-0-3 Bio-Medical Instrumentation Systems: This course covers principles of medical instrumentation, and includes study of medical diagnostics. **Pre-requisite:** BM 101.

BM 410 3-0-3 Bio-Medical Engineering Technology Internship: Students begin an internship at a biomedical facility. Students keep a detailed journal logging their internship time and activities, and review their field experience with faculty.

BM 420 3-0-3 Telemedicine and Medical Informatics: This course covers design principles and implementation of computer infrastructure as related to accessing medical databases, visualizing medical techniques, and transferring and manipulating medical data over communication networks. **Pre-requisite:** BM 101.

Chemistry Courses

CH 101 3-0-3 Introduction to Chemistry: An introductory course covering basic concepts important as **prerequisites** to the study of General Chemistry. Math skills are stressed.

CH 121 3-0-3 General Chemistry I: A comprehensive course in chemistry covering all major areas of the discipline: inorganic, physical, analytical, and organic. Topics include nomenclature, the mole concept, stereochemistry, structure, bonding, the periodic table, gas laws. For students needing a rigorous introductory course in chemistry in preparation for advanced courses. **Co-requisites:** CH 121L, MA 121.

CH 121L 0-2-1 General Chemistry I Lab: Laboratory component of CH 121. A laboratory course emphasizing techniques for measuring mass, volume, temperature, hands on experience, etc. Exercises complement lecture topics. Group-centered learning experiences and demonstrations as well as audiovisual aids and instrumentation are employed. **Co-requisite:** CH 121.

CH 122 3-0-3 General Chemistry II: A continuation of CH 121. Topics include solutions, acid-base chemistry, kinetics, equilibrium, thermodynamics, electrochemistry, and organic chemistry. **Pre-requisite:** CH 121 and **Co-requisite:** CH 122L.

CH 122L 0-2-1 General Chemistry II Lab: Laboratory component of CH 122. A laboratory demonstrating key concepts of the course and hands on experience. **Co-requisite:** CH 122.

CH 123 3-2-4 General Chemistry: With qualitative analysis. An introduction to the four main divisions of chemistry with a strenuous laboratory involvement; mainly for chemistry majors and those majors requiring qualitative analysis. **Co-requisite:** CH 123L.

CH 123H 3-2-4 Honors Chemistry: An honors level first year survey college chemistry course introducing basic concepts on chemical reaction, bonding, molecular structure, gases, states of matter, properties of solutions, equilibrium, electrochemical cells, coordination compounds, acids and bases, and atomic structure. This course has a strenuous laboratory component. **Co-requisite:** CH 123HL.

CH 124 3-2-4 General Chemistry: With qualitative analysis. A continuation of CH 123. **Co-requisite:** CH 124L.

CH 124H 3-2-4 Honors Chemistry: A continuation of CH 123H. **Co-requisite:** CH 124HL.

CH 141 3-0-3 General, Organic, and Biological Chemistry I: An introduction to general and organic chemistry. Topics included are atomic structure and theory, periodic table, bonding, solutions and mixtures, acid-base chemistry, radioactivity, inorganic nomenclature, hydrocarbons – their nomenclature, physical properties, and reactions. A course in chemistry for students in the agricultural, family and consumer, nursing, and allied health sciences.

CH 141L 0-2-1 General, Organic, and Biological Chemistry I Lab: Laboratory component of CH 141. A laboratory course in chemistry for students in the agricultural, family and consumer, nursing and health sciences.

CH 142 3-0-3 General, Organic, and Biological Chemistry II: A continuation of CH 141. Topics include major functional groups of carbon compounds, their preparations and reactions, an introduction to biomolecules including carbohydrates, proteins, and lipids, essential fluids, and elementary metabolism.

CH 142L 0-2-1 General, Organic, and Biological Chemistry II Lab: Laboratory component of CH 142. A laboratory demonstrating key concepts of the course and hands on experience.

CH 205 1-0-1 Chemical Literature: The scope, variety, and use of chemical publications.

CH 221 3-0-3 Organic Chemistry I: A general organic chemistry course comprising aliphatic and aromatic hydrocarbons, major functional groups, nomenclature, origins, preparations, syntheses and reaction mechanisms of organic compounds. A course for students preparing for graduate work in chemistry, medicine, dentistry, pharmacy, and related disciplines. **Pre-requisite:** CH 122. **Co-requisite:** CH 221L.

CH 221L 0-4-1 Organic Chemistry I Lab: Laboratory component of CH 221. A laboratory emphasizing techniques such as extraction, distillation, re-crystallization, utilized in organic synthesis. Laboratory experiences are supplemented with hands on instrumentation, audio-visual, computer, and Web-based activities. **Pre-requisite:** CH 122L. **Co-requisite:** CH 221.

CH 222 3-0-3 Organic Chemistry II: A continuation of CH 221. **Pre-requisite:** CH 221. **Co-requisite:** CH 222L.

CH 222L 0-4-1 Organic Chemistry II Lab: Laboratory Component of CH 222. A laboratory demonstrating key concepts of the course and hands on experience. **Pre-requisite:** CH 221L. **Co-requisite:** CH 222.

CH 301 2-0-2 Chemistry and Life: A consideration of the basic concepts of chemistry from the viewpoint of their relevance to familiar situations of everyday modern life.

CH 301L 0-(2-4)-(1-2) Chemistry and Life Lab: A laboratory with variable credit hours that focuses on the chemistry of appropriate life experiences.

CH 315 3-0-3 Survey of Organic Chemistry: A brief survey of major organic chemistry topics, such as functional groups, nomenclature, reactions and uses of organic compounds. A terminal course in organic chemistry for certain students in agricultural, family and consumer or allied health sciences. **Pre-requisite:** CH 142 or CH 122. **Co-requisite:** CH 315L.

CH 315L (0-2)-0-(2-1) Survey of Organic Chemistry Lab: Laboratory component of CH 315. A laboratory course covering the basic techniques, methods, and analysis of organic compounds and hands on experience. **Pre-requisite:** CH 122L. **Co-requisite:** CH 315.

CH 320 3-0-3 Environmental Chemistry: A study of the chemistry of the natural environment and the effects of pollution on the environment. **Pre-requisite:** CH 122.

CH 321 3-0-3 Quantitative Analysis: The principles and techniques for the quantitative examination of common inorganic substances using both titrimetric and gravimetric procedures. **Pre-requisite:** CH 122 or CH 142.

CH 321L 0-4-1 Quantitative Analysis Lab: Laboratory component of CH 321. A laboratory demonstrating key concepts of the course and hands on experience. **Co-requisite:** CH 321.

CH 322 3-0-3 Instrumental Methods of Analysis: A study of the theory and practical applications of research-type instrumentation in qualitative and quantitative analysis. **Pre-requisites:** CH 321, CH 323 is highly recommended.

CH 322L 0-2-1 Instrumental Methods of Analysis Lab: Laboratory component of CH 322. A laboratory demonstrating sample preparation and instrumental analysis techniques, such as spectrophotometry and chromatography. **Co-requisite:** CH 322.

CH 323 3-0-3 Physical Chemistry I: The fundamental laws and theories of chemistry as applied to gases, liquids, solids, and solutions. **Pre-Requisites:** CH 122, PY 216 or PY 218, and MA 181, and MA 225.

CH 323L 0-2-1 Physical Chemistry I Lab: A hands-on laboratory course where students perform experiments that test the fundamental laws and theories of chemistry as applied to gases, liquids, solids, and solutions. **Co-requisite:** CH 323.

CH 324 3-0-3 Physical Chemistry II: A continuation of CH 323.

CH 324L 0-2-1 Physical Chemistry II Lab: Laboratory component of CH 324. A continuation of hands-on experiments. **Co-requisite:** CH 324.

CH 330 3-0-3 Survey of Biochemistry: A brief survey of chemistry of biomolecules, including amino acids, carbohydrates, fats/lipids, and peptides/proteins as regards to their structure, nomenclature, function, metabolism and analysis. A terminal course in biochemistry for certain students in agricultural, family and consumer, or allied sciences. **Pre-requisite:** CH 315.

CH 330L (0-2)-0-(2-1) Survey of Biochemistry Lab: Laboratory component of CH 330. A laboratory course exploring basic reactions and behaviors of certain biomolecules and hands on experience. **Co-requisite:** CH 330.

CH 331 3-0-3 Biochemistry I: A description and analysis of the physical and chemical requirements of living organisms; including a description of protein structure and function, enzymes, coenzymes, enzyme kinetics, and regulation. **Pre-requisite:** CH 222.

CH 331L 0-2-1 Biochemistry I Lab: Laboratory component of CH 331. A laboratory demonstrating key concepts of the course and hands on experience. **Co-requisite:** CH 331.

CH 332 3-0-3 Biochemistry II: A continuation of CH 331 to include the major metabolic pathways of carbohydrates, lipids, and nitrogen containing compounds. The physical and chemical properties of carbohydrates, lipids, and nitrogen compounds are also treated. **Pre-requisite:** CH 331.

CH 332L 0-2-1 Biochemistry II Lab: Co-requisite: CH 332. A laboratory demonstrating key concepts of the course.

CH 342 3-0-3 Physiological, Organic and Biochemistry: A course that discusses organic nomenclature and functional groups reactions. It also emphasizes biochemical events in mammals and particularly the human organism. Topics: metabolic pathways, hormonal regulation, nutrition, and the chemistry of specialized tissues and body fluids. **Pre-requisite:** CH 121.

CH 370 3-0-3 Survey of Industrial Organic Chemistry: A survey of the reactions, formulations, and applications of industrial organic chemistry. Topics include most important industrial products, economics, and cost analysis, and historical development of the industry. **Pre-requisite:** CH 222.

CH 398 0-2-1 Undergraduate Lab Instruction I: A course for majors exposing them to preparation, instruction, and analysis in teaching laboratories.

CH 399 0-2-1 Undergraduate Lab Instruction II: A course for majors exposing them to preparation, instruction, and analysis in teaching laboratories.

CH 401 2-2-3 Principles of Chemistry for Teachers I: A course designed for in-service teachers. An investigation of the main concepts of the five major areas of chemistry with emphasis on those concepts involved in the teaching of secondary school chemistry. An integrated laboratory is involved to relate chemical principles to laboratory activity. **Pre-requisite:** CH 222.

CH 402 2-2-3 Principles of Chemistry for Teacher II: A continuation of CH 401.

CH 403 1-0-1 Seminar: Discussion of current periodicals, books, and research reports, original research.

CH 404 1-0-1 Seminar: A course designed for chemistry majors that emphasizes the principles of ethics, with a focus of ethics in the field of Chemistry. The class is discussion based with a writing component use to develop a deeper understanding of the importance of ethics in the field of Chemistry.

CH 410 1-6-3 Organic Qualitative Analysis: Principles and experimental techniques used in the identification of organic compounds and the separation of mixtures. **Pre-requisite:** CH 222.

CH 415 2-3-3 Nuclear and Radiochemistry: A survey course treating concepts of radioactivity, transmutation, elementary particles, nuclear energy, radioactive labeling and radiation counting and monitoring. **Pre-requisite:** CH 324, MA 181, PY 218.

CH 419 2-0-2 Descriptive Inorganic Chemistry: A course on the chemistry of the main group elements and transition metals.

CH 420L 0-4-2 Inorganic Chemistry Lab: A laboratory course dealing primarily with various synthetic methods in inorganic chemistry. **Pre-requisite:** CH 222L, CH 321L. **Co-requisite:** CH 421.

CH 421 2-0-2 Inorganic Chemistry: An introduction to functional topics in inorganic chemistry including atomic structure, periodicity, acid-base theories, bonding theories, non-aqueous solvents, nuclear chemistry, and magnetic properties of inorganic compounds. **Pre-requisite:** CH 323, CH 321. **Co-requisite:** CH 420L.

CH 423 0-6-3 Chemical Research or Independent Study: This program of research or independent study is designed to give students insight into basic research. Students work independently on a problem or topic under the direction of an approved advisor. **Pre-requisite:** Senior status and departmental consent.

CH 424 0-6-3 Chemical Research or Independent Study: A continuation of CH 423.

CH 425 0-6-3 Experimental Methods: An unstructured laboratory course with experimental problems from organic, analytical, physical, inorganic, and biochemistry. **Pre-requisites:** CH 322, CH 323.

CH 426 3-0-3 Kinetics and Thermodynamics: A course dealing with the applications of kinetics and thermodynamics, emphasizing coordination chemistry and the chemistry of biological systems. **Pre-requisites:** CH 324, CH 421.

CH 440 3-3-4 Biochemistry: A treatment of the storage and utilization of genetic information including the structure of RNA and DNA, replication and repair of DNA, RNA synthesis and processing, protein synthesis, and the regulation of gene expression. **Pre-requisite:** CH 332.

CH 460 (1-3)-0-(1-3) Modern Topics in Chemistry: A course designed to treat any specialized topic(s) or area(s) of chemistry. **Pre-requisite:** CH 222.

CH 480 3-0-3 Spectroscopy: An introduction to fundamental theories on spectroscopy. Topics include mechanics, ultraviolet, visible, infrared, Raman, magnetic resonance, mass spectroscopy. **Pre-requisites:** CH 323, MA 324; **Co-requisite:** CH 421.

Criminal Justice Courses

CJ 200 3-0-3 Introduction to Criminal Justice: An examination of the history, organization, and function of the various local and federal agencies that make up the criminal justice system. The survey is organized around three major components of the criminal justice system: police, courts, and corrections.

CJ 230 3-0-3 Introduction to Law Enforcement: An in-depth examination of the law enforcement sub-system of the criminal justice system. Includes historical precedents to American systems, the diversity of agencies and their roles, the internal components of agencies, and their interrelationships with other system components and other social and legal agents and agencies.

CJ 330 3-0-3 Criminal Investigation: An in-depth study of the principles, concepts, and theories applicable to the investigation procedures used by law enforcement agents and agencies. Analysis of case law affecting criminal investigations. The course is designed to familiarize the student with the mechanics of investigative evidence-processing techniques. **Pre-requisite:** CJ 230, or approval of the department head.

CJ 350 3-0-3 Courts and Criminal Justice: Examination of the court component of the criminal justice system. Emphasis is placed on structure, rules, and functions of courts and their relationship to other systems components and social institutions. **Pre-requisite:** CJ 200 or approval of the department chair.

CJ 370 3-0-3 Corrections: An in-depth examination of the corrections component of the criminal justice system. Fundamentals of correctional practices and philosophy, historically and systematically studied including law, sentencing, and appellate review as each relates to the correctional process. Survey of correctional components: community-based programs, institutions, administration, offender categories, classification, and treatment. **Pre-requisite:** A major in Criminal Justice and CJ 200 or approval of department head.

CJ 393 3-0-3 Criminal Law: Examination of substantive criminal law with emphasis on history theory, classification and elements of crimes, elements of proof, and other issues related to criminal law. **Pre-requisite:** CJ 200 or approval of department head.

CJ 411 3-0-3 Deviant Behavior: Introduction to the social and cultural factors related to human deviance. Special attention will be given to the study of various theories of deviance. **Pre-requisite:** SY 235 or consent of instructor.

CJ 415 3-0-3 Criminal Justice Procedure: Analysis of procedural law related to due process. Evidence and rules of law related to evidence are examined. **Pre-requisite:** CJ 393 or approval of department head.

CJ 470 3-0-3 Private Securities Systems: An overview of the major topics of private security. The topics examine the basic problems, procedures, and needs in the field of security work. A comparison of private agencies, hotels, retail, and industrial enterprises that handle their own security with private and public security organizations. Emphasis is given to the role of private, industrial, and business security systems and their relationship to the criminal justice system. **Pre-requisite:** Junior standing plus CJ 200.

Mass Communication Courses

CO 100 3-0-3 Introduction to Mass Communication: This course studies the Mass Communication systems that exist within the United States. While studying this foundation course, students will have an opportunity to determine a specific area of emphasis in which they might want to concentrate, such as Public Relations, Broadcasting, Print Journalism, or Advertising.

CO 103 3-0-3 Introduction to Social Media: This course provides students with an introduction to the history, theory, technology, and uses of social media. Students will explore the possibilities and limitations of social media and will have hands-on experience with several forms of social media technology. Those who complete this course will know how to use social media productively, and have a framework for understanding and evaluating new tools and platforms.

CO 203 3-0-3 Mass Media Writing: This course focuses on the fundamental principles of information gathering, writing, editing, and reporting. Students are given practical assignments to enhance their knowledge and skills in various areas of Mass Communication. **Pre-requisite:** CO 100.

CO 218 3-0-3 Broadcast Announcing: Students will study the principles of articulation, and practice vocal delivery to develop a range of announcing skills for radio and television news presentation, interviewing skills, entertainment delivery, panel moderation, and persuasive message delivery. This course will enhance skills in oral and nonverbal communications as applied to the diverse field of broadcast performance, including ad-libbing, news reporting, delivering commercials, play-by-play, sports announcing, working with equipment, and articulating sounds. **Pre-requisites:** CO 100 and CO 203.

CO 231 3-0-3 Broadcast News Writing and Reporting: This course provides an overview of the structure and functions of commercial radio and television news departments, and the theoretical and technical application of program delivery associated with radio and television stations. Students will study the techniques of newsgathering, writing, editing, and delivery. **Pre-requisites:** CO 100 and CO 203.

CO 241 3-0-3 Public Relations Principles and Practices: This course introduces students to the origins, functions, defining issues, planning and practices of public relations, including its fundamental concepts and theories. It also focuses on historical development and current issues. **Pre-requisites:** CO 100 and CO 203.

CO 242 3-0-3 Public Opinion and Propaganda: This course exposes students to historical and current uses of persuasive communication by providing an understanding of how the media, political parties and commercial entities exchange and present information, and its relation to public opinion. **Pre-requisites:** CO 100 and CO 203.

CO 252 3-0-3 Basic Copy Editing: This course is designed to study the fundamental principles of information gathering, writing, editing, and reporting for the mass media in print and broadcast. The different styles and approaches to writing and copy editing for the media will be examined with emphasis on practical assignments. **Pre-requisites:** CO 100 and CO 203.

CO 253 3-0-3 Public Affairs Reporting: This course examines the reporting of public institutions, programs and other public concerns such as local government, public schools, courts, crime, and social services. Students will learn how to cover legislative sessions, town government and school board meetings, trials, and the police beat. **Pre-requisites:** CO 100 and CO 203.

CO 257 3-0-3 Current Issues in Journalism: This course is a study of recent, critical problems faced by mass media with exploration of the complexities that cause them. Students will learn to think more critically about the coverage of current events and trends in the mass media profession.

CO 301 3-0-3 Mass Media and Minorities: This course examines the representations of minority groups, such as African American, Asian American, Latinos and Native Americans, in U.S. news and entertainment mass media. Historical, social, political, economic and other factors influencing the mass media's depictions of minorities will be explored.

CO 312 3-0-3 Alternative Media in A Diverse Society: This course is designed to acquaint students with the historical context of the mass media and its relationship with minorities and women in advertising, entertainment, broadcasting, and public relations campaigns. The course is designed to encourage a departure from stereotypical attitudes and biases concerning the role of minorities and women in the broadcast industry. **Pre-requisites:** CO 100 and CO 203.

CO 333 3-0-3 Mass Communication Law and Ethics: This course examines how the law treats the gathering and publications of news events with particular reference to the First Amendment and the extent to which it protects the gathering and publication of news. **Pre-requisites:** CO 100 and CO 203.

CO 338 3-0-3 Basic Video Editing Techniques: Students study the techniques and disciplines of camera and video equipment. Special emphasis is placed on electronic newsgathering and field production. The course provides practical applications of various techniques associated with online and offline editing. **Pre-requisite:** CO 218.

CO 344 3-0-3 Sports Broadcasting: This course is designed to offer instruction, analysis and training in sports information gathering and research, writing, interviewing and reporting. Special emphasis is placed on the basic aspects of live play-by-play broadcasting; color commentary; and sports reporting, anchoring and producing for radio and TV. Learn the theory and practice of sports broadcasting, fundamentals of logistics of remote broadcasts and practical experience in Broadcast Journalism. **Pre-requisite:** CO 100, CO 231, CO 252, and CO 338

CO 348 3-0-3 Television Production: This course teaches students the theoretical and practical uses of television control room and studio production. Emphasis is placed on set/stage design, lighting, in studio camera operations, graphics, and videotaping. Also included is the study of various formats used for directing full facility projects using switcher operation with special digital effects. **Pre-requisite:** CO 338.

CO 351 3-0-3 Feature Writing: This course provides an advanced study in the techniques of writing feature articles for magazines and newspapers. Students are encouraged to publish in the college newspaper any feature story that may be of interest to the public it serves, such as the surrounding communities, faculty, staff, and students. **Pre-requisite:** CO 100, CO 203.

CO 354 3-0-3 Investigative Reporting: This course will provide students with the essential tools necessary to find and provide accurate, detailed information concerning hard news events that require trained and sophisticated research methods. **Pre-requisites:** CO 100, CO 203.

CO 358 3-0-3 Advanced Television Production: Students continue to study the application and practical use of the television control room and the studio with emphasis on set design, lighting, camera operations, graphics, and switcher operations with special electronic and digital effects. Students taking this course are required to participate in a live weekly newscast production. **Pre-requisites:** CO 231, CO 252, CO 338 and CO 348.

CO 361 3-0-3 Introduction to Photography: Students learn the beginning techniques of camera use, including exposing, film processing and printing, and how to transition from traditional photography to digital image gathering, printing, and processing. **Pre-requisites:** CO 100 and CO 203.

CO 368 3-0-3 Radio Production Lab: This course provides an introduction to scripting, recording, editing, and mixing radio production. Students learn to operate control room equipment in the campus radio station. **Pre-requisite:** CO 218.

CO 370 3-0-3 Publication Design: Students are introduced to layout and design using the latest page design software. This course provides students with a professional working knowledge of design techniques, grid theory, page layout, and image integration related to publication design applications. **Pre-requisite:** CO 100 and CO 203.

CO 371 3-0-3 Advanced Photography: This course is designed for students working on photographic projects where they explore personal, aesthetic and technical interests through the development of an individualized photographic series. **Pre-requisite:** CO 361.

CO 410 3-0-3 Workshop in Mass Communication: This course provides students the opportunity to work in the television center, radio station, or on the school newspaper and receive extra hands-on experience and training. This course allows students to create portfolios and resume tapes to obtain professional or internship opportunities. **Pre-requisites:** CO 231, CO 338, CO 348, CO 354, CO 368, and advisor's approval.

CO 417 3-0-3 Introductions to Mass Communication Research Methods: This introductory research course teaches students to conduct content analysis along with quantitative and qualitative studies to heighten their awareness concerning specific areas of the mass media. **Pre-requisite:** CO 100 and CO 203.

CO 461 3-0-3 Public Relations Management and Campaigns: This course examines problems that public relations practitioners encounter in the area of business, education, religion, and nonprofit organizations. Students also examine successful and unsuccessful campaigns. **Pre-requisites:** CO 100 and CO 203.

CO 462 3-0-3 Principles of Advertising: This course is an introduction to integrated marketing communications elements, including advertising, direct response, sales promotion, and marketing public relations, along with how they function in today's communication environment. This course explores research, media, and message elements involved in the creation of a campaign and governmental regulations, as well as social and economic considerations. **Pre-requisites:** CO 100 and CO 203.

CO 467 3-0-3 Creating Advertising Messages: This course examines the development of persuasive message strategies as well as the writing and design of messages for media advertising, direct response, sales promotion, marketing, public relations, and oral presentations of advertising materials. **Pre-requisite:** CO 462.

CO 470 3-0-3 Multimedia Reporting: This course teaches students the importance of multimedia reporting and how to add audio and visual content to their stories. Students will learn the history of multimedia journalism, the importance of multimedia content in news organizations, and the ways to present this content. **Pre-requisite:** CO 103 and CO 231.

CO 485 3-0-3 Directing for Film/Video: Students review classic and contemporary film and video directing skills in all phases of production including script breakdown, scene preparation, behaviors of characters, budget, offset leadership skills and practices. Students will be responsible for making and participating in a full-length video documentary. **prerequisites:** CO 338, CO 348, and CO 358.

CO 495 3-0-3 Internship in Mass Communication: This internship course provides Mass Communication majors the opportunity to receive practical experience in a professional setting. Students will work as interns at various newspapers, radio or television stations, public relations firms, advertising agencies, or graphic design studios. This course must be approved by the internship coordinator. This course should be taken during the student's senior year. **Pre-requisites:** CO 410 and advisor's approval.

Computer Science Courses

CS 100 0-2-1 Information to Computers: This Course introduces the students with little or no computer skills to the basic concepts of a computer system, Canvas system for teaching, Internet and computer applications. It focuses on word processing, electronic spreadsheets, database management and graphics using Microsoft Office Application Software like Word, Excel, PowerPoint, Access and FrontPage.

CS 201 3-0-3 Introduction to Programming: This course gives an introduction to the problem solving skills and fundamental programing using Python language. **Pre-requisite:** Computer Literacy Course or equivalent.

CS 202 3-0-3 Programming in C++ I: Introduction to C++ language. Basic principles of computer programming. Topics include types, operators, and expressions; control flow; I/O; functions and program structure; software design techniques.

CS 203 3-0-3 Programming in C++ II: This course continues the development of programming and problem solving skills and focusing on object oriented programming. Utilizing functions, array, and derived data types to build applications and solve small real world problems. **Pre-requisite:** CS 202 or special permission from the Department.

CS 251 3-0-3 Object Oriented Programming: This course introduces object-oriented programming techniques. Topics include abstract data type, constructors, operator overloading, pointers, dynamic storage allocation, template function and template class, as well as popular data structures such as bag, string, and linked list. **Pre-requisite:** CS 203 or special permission from the department.

CS 321 3-0-3 Data Structures and Algorithms: Definition, use, and implementation of data structures using a modern programming language. Classical algorithms such as searching, sorting, and string processing. **Pre-requisite:** CS 251 or special permission from the department.

CS 350 3-0-3 Operating Systems: This course introduces the fundamental knowledge of operating systems: concurrent communicating processes, threads, CPU scheduling, synchronization, semaphores, deadlock prevention and detection, memory management and I/O management. **Pre-requisite:** CS 321 or equivalent.

CS 360 3-0-3 Software Engineering Principles: This course introduces the following topics: Concept of software and software engineering, software engineering modeling, requirements, architectural design, user interface design, software quality management, software programming, software testing strategies, software verification and validation, the trend of the future of software engineering. **Prerequisite:** None.

CS 370 3-0-3 Unix Programming I: Introduction to UNIX user commands, system calls, UNIX utilities, Shell programming, C/C++ multi-threaded programming, Parallel architectures and introduction to parallel programming with MPI and Open MP libraries. **Pre-requisite:** CS 251.

CS 380 3-0-3 Python Programming: Study of the world of data analysis programming and understanding how big data is growing in necessity from many companies; It will discuss the following topics: the process of inspecting, cleaning, transforming, and modeling data with the goal of discovering useful information, suggesting conclusions, and supporting decision making. **Pre-requisite:** None

CS 390 3-0-3 Introduction to Enterprise Computing: This course covers concepts and features of the enterprise operating system, including hardware, data management, job control, programming language compilation and execution, and other functions of the enterprise system. **Pre-requisite:** None.

CS 401 3-0-3 Computer Architecture: This course will cover computer systems and functions, cache memory, internal memory, external memory, input/output modules and interrupt and system buses. **Pre-requisite:** none.

CS 410 3-0-3 Computer Organization and Assembly Language: This course introduces students the basic data formats (Binary, Decimal and Hexadecimal numbers) and their conversion, Digital Logic, Combinational Circuits, basic PC computer Interface and Intel-based assembly language. The course will also cover the following contents for assembly language: the concept of instruction addressing and execution, requirements for coding in assembly language, assembling, linking, executing assembly programs, instruction and assembly language grammar. **Pre-requisite:** None.

CS 420 3-0-3 Database Systems: Theory of Relational databases; relational database management systems, SQL; Normal forms and Normalization of tables, database design, ER diagrams. **Pre-requisite:** CS 321.

CS 427 3-0-3 Unix Programming II: Advanced parallel programming with MPI and Open MP libraries, Use of GNU MP and other libraries, Topics in High Performance Computation **Pre-requisite:** CS 370.

CS 440 3-0-3 Computer Networks and Telecom I: This course introduces a broad overview of computer networking and the Internet (terminology and concepts), conceptual and implementation aspects of network applications, relationship between the transport and network layers, controlling the transmission rate of transport layer entities, causes and consequences of congestion, as well as commonly used congestion-control techniques, TCP's approach to congestion control, and exactly how the network layer implements the host-to-host communication service. **Pre-requisite:** MA 181 or any programming course or special permission from the department.

CS 441 3-0-3 Computer Networks and Telecom II: This course introduces exactly how the network layer implements the host-to-host communication service, explore several important link-layer concepts, dive deeper into error detection and correction (a topic touched on briefly in CS 440 or CS 545), mobile users, wireless links, networks, and their relationship to the larger (typically wired) networks to which they connect.

How multimedia applications, multimedia application can be classified as streaming stored audio/video, conversational voice/video-over-IP, or streaming live audio/video. **Pre-requisite:** CS 440.

CS 442 3-0-3 Introduction to Wireless and Mobile Networks: Wireless networking is one of the fastest growing segments of the computer industry. The many advantages of cell phones are evident to all—anywhere, anytime, untethered access to the global telephone network via a highly portable lightweight device. This course will remove the mystery and give students a thorough understanding of this fascinating and lucrative technology. Prerequisite: None.

CS 445 3-0-3 Scientific Computation: Study of numerical algorithms, Mathematical models, their implementations in C++, MATLAB, implementation on parallel machines, application of these methods in Science and Engineering problems. **Pre-requisite:** CS 321.

CS 454 3-0-3 Web Application and E-Commerce: An overview of Internet, technology and information services. Emphasis on Web design, development, and scripting. Students will learn the latest tools and techniques for building dynamic and interactive Web pages and sites. HTML, Dynamic web page construction, introduction to scripting languages, internet Database Operations and E-commerce applications. **Pre-requisite:** none.

CS 460 3-0-3 Programming Languages and Compilers: This course introduces the design and implementation of programming languages. It studies the syntax semantics and the logic of programming language. The course will study present and past programming languages and focus on the difference between programming languages. It covers programming features such as variables, data types, data abstraction, and exception handling. **Pre-requisites:** CS 321 or special permission from the department.

CS 465 3-0-3 Databases for Data Analysis: This course covers concepts and technologies of developing relational and non-relational database systems in order to preprocess and analyze massive data. Topics may include database programming and SQL with high level programming language like java/C#, non-relational database programming with no SQL, distributed database with MapReduce algorithm, implementation of data mining algorithms. This course is designed to prepare the students with both technical and theoretical knowledge necessary for database, data science and big data professions. **Pre-requisite:** CS 420.

CS 470 3-0-3 VB Programming: Window programming environment for rapid application development, including access database, API and active X controls. Using Microsoft's Visual Basic (VB.NET) Object Oriented Programming. **Pre-requisite:** CS 321 or special permission from the department.

CS 480 3-0-3 Java Programming: This course introduces advanced features of the Java programming language. It covers how to use inheritance, interfaces, exception handling, and file operation. The course also teaches how to incorporate graphical user interfaces (GUIs) into their programming applications and how to apply object-oriented design and programming principles to their programs. **Pre-requisite:** CS321 or special permission from the department.

CS 485 3-0-3 Fundamentals of Cybersecurity: This course is advanced undergraduate course. The course describes basic topics in cyber security. The course contents build up the operating systems and computer networks. The topic covers cyber security attributes, access control, access authentication, network security, database security, operating system security, Cryptography, Cryptographic mechanisms, Window security, Unix system security. This course can be used for selective course for Advanced Technologies department. Prerequisite: senior students in computer science, IT, and engineering or approved by the department.

CS 486 3-0-3 Data Mining and Machine Learning: This course introduces a comprehensive overview of the background and general themes of data mining and machine learning. Presented in a clear and accessible way, this book outlines fundamental concepts and algorithms for each topic, thus providing the students with the necessary background for the application of data mining and machine learning to real problems. The textbook helps students understand subjects and includes important sections on classification, association analysis and cluster analysis. This course will address the significant changes in the industry as a result of advanced technology and data growth. In this course, the concept of machine learning is presented and its applications are discussed. **Pre-requisite:** CS321.

CS 488 3-0-3 Introduction to Software Security: This course covers principles, methods and technologies in developing more secure software. It also covers typical threats and vulnerabilities in software, and how to avoid them. **Pre-requisite:** CS 350.

CS 490 3-0-3 Senior Project in Computer Science: This course is designed to improve senior students' programming and project implementation skills. The students will be required to implement one project related to computer science. Through this project, students can obtain hands-on experiences in the field. **Pre-requisite:** computer science senior students or special permission from the department.

Computer Engineering Technology Courses

CT 123 2-1-3 Computer Programming with Fortran: Problem-solving methods, algorithm development, debugging and documentation in the FORTRAN programming language; applications.

CT 125 2-1-3 Computer Programming with Java: Problem-solving methods, algorithm development, debugging and documentation in the Java programming language; applications.

CT 127 2-1-3 Introduction to Computer Programming: Introductory problem solving and computer programming using object-oriented techniques. Theoretical and practical aspects of programming and problem solving.

CT 128 2-1-3 Intermediate Computer Programming: Object-oriented problem solving, design, and programming. Introduction to data structures, algorithm design, and programming.

CT 210 2-1-3 Circuit Analysis I: A study of the analysis of DC circuits. Topics include Ohm's law, power, energy, series circuit, parallel circuit, series parallel circuits, nodal analysis, mesh analysis, network theories, capacitors, inductors, magnetic circuits etc. **Pre-requisite:** MA 121.

CT 212 2-1-3 Circuit Analysis II: Continuation of CT 210. A study of the analysis of AC circuits. Topics include sinusoidal alternating waveforms, phasors; series R-L, R-C, R-L-C circuits; parallel R-C, R-L, and R-L-C circuits; Mesh analysis, nodal analysis, network theories, ac power, resonance, filters, Bode plots etc. **Pre-requisite:** TY 232 or EG 210.

CT 224 2-1-3 Computer Programming with C: Problem-solving methods, algorithm development, debugging and documentation in the C programming language; applications.

CT 300 2-1-3 Data Structures and Analysis of Algorithms: Non-linear data structures and their associated algorithms. Trees, graphs, hash tables, relational data model, file organization. Advanced software design and development. **Pre-requisites:** CT 326.

CT 304 3-0-3 Electrical Networks (Signals and Systems): A study of applying network theories to solve electrical circuits and system problems. Topics include Fourier series, convolution, Laplace transforms, state-space analysis and application. **Pre-requisite:** TY 232 or EG 210.

CT 306 3-0-3 Electronics I: Introduction to electronic signals, semiconductors, semiconductor devices, and circuits. Application as semiconductor devices in electronic circuit such as power supplies and amplifiers. Students are required to apply knowledge gained in the course to design and build working electronic systems. Extensive written and oral communications are required. **Pre-requisite:** TY 232 or EG 210.

CT 309 2-1-3 Electronics II: Continuation of CE 306. Application of concepts in the analysis and design of electronic devices and circuits. Design and construction of electronic circuits such as oscillators, active filters, and modulators. Student projects required. Extensive oral and written communications are required. **Pre-requisite:** TY 331 or CE 306.

CT 310 2-1-3 Digital Electronics I: Introduction to digital logic and circuits. Application of basic digital design and troubleshooting using standard integrated circuits used in industry today. Student-designed projects required. Extensive oral and written communications required.

CT 311 2-1-3 Digital Electronics II: Continuation of CE 410. The course covers flip-flops, code converters, multiplexers, de-multiplexers, registers, counters, multi-vibrators, interfacing to the analog world, semiconductor memory and programmable arrays. Student projects required. Extensive oral and written communications required. **Pre-requisite:** TY 331 or EG 400 or CE 310.

CT 320 2-1-3 Microprocessors I: Introduction to microprocessors and microprocessor-based system design and troubleshooting. A study of interaction between hardware and software and programming techniques required for real-time control of processes and machines by a digital computer. Student projects required. **Pre-requisite:** TY 232 or EG 210.

CT 322 3-0-3 Introduction to Computer Arithmetic: Fixed point number systems; algorithms and associated logic level implementations for fixed point addition, subtraction, multiplication, and division; floating-point formats and operation.

CT 326 2-1-3 Computer Programming with C++: Problem-solving methods, algorithm development, debugging and documentation in the C++ programming language; applications.

CT 328 2-1-3 Operating Systems I: Historical development of operating systems to control complex computing systems; process management, communication, scheduling techniques; file system concepts and operation; data communication, distributed process management.

CT 421 2-1-3 Microprocessors II: Continuation of CE 420. A study of microcomputer hardware and programming techniques required for real-time control of processes and machines by a digital computer. Student projects required. **Pre-requisite:** CT 320.

CT 422 2-1-3 Advanced Microprocessors: The study of architecture, software, and interface techniques utilized by advanced micro-computing systems. Emphasis on multi-programming, multi-processing, and memory management. **Pre-requisite:** CT 320 or CT 421.

CT 423 3-0-3 Digital System Design: Hierarchical digital design using available design software. Computer aided design workstations will be used to give students access to state-of-the-art design techniques. **Pre-requisite:** EG 400 or CE 311.

CT 424 3-0-3 Introduction to Computer Architecture: Design and implementation of a stored-program digital computer system. Designs for the CPU, I/O subsystems, and memory organizations. ALU design and computer arithmetic.

CT 427 3-0-3 Introduction to Software Engineering: Introduction to software engineering: planning, requirements, analysis and specification, design; testing; debugging; maintenance; documentation. Alternative design methods, software metrics, software project management, reuse and reengineering.

CT 429 3-0-3 Operating Systems II: Continuation of CE 428. Integrated treatment of hardware and software concepts in operating systems design, procedure implementation, creation and control of processes, name and space management. **Pre-requisite:** CT 328.

CT 430 0-6-3 Senior Design Project I: Lectures on teaming, project management, engineering standards, economics, and ethical and professional issues. Student must select faculty mentor, perform project design, and present orally.

CT 431 0-6-3 Senior Design Project II: Development of design, teaming, presentation, and entrepreneurial skills. Teams must complete their project designs, and present written and oral results.

Economics Courses

EC 201 3-0-3 Principles of Economics I: An introduction to Micro- economics. Studies of demand and supply, elasticities, market price determination, market structure, and the theory of maximum profit.

EC 202 3-0-3 Principles of Economics II: An introduction of macro-economics. Studies of national income accounts and measurements, income determination, banking systems, and monetary and fiscal policies.

Education Courses

ED 200 3-0-3 Social Studies/Multicultural Education: This course is designed to promote in students analytical and evaluative abilities to confront and understand issues such as participatory democracy, racism, sexism, and parity of power. It also focuses on skills for value clarification as well as examines the dynamics of diverse cultures and linguistic variations.

ED 302 3-0-3 Teaching Practicum/Technology: This course provides opportunities for direct field experiences in the classroom. Students are required to demonstrate competencies in groups, individualized instruction, curriculum organization and classroom management, and integrating technology in the classroom.

ED 307 3-0-3 Education and Psychology of Students with Emotional Disturbances: This course considers various theoretical aspects of emotional disturbances in children and means of inducing change. It also emphasizes practical problems in schools and social situations.

ED 308 3-0-3 Education and Psychology of Students with Mental Retardation: This course is designed to instill the basic concepts which are fundamental in the study of mental retardation. The course covers the historical development of mental retardation practices and programs in relation to medical, psychological, and educational procedures and investigations. Emphasis is placed upon diagnostic interpretations of retardation classifications, the discovery and implementation of viable educational programs.

ED 310 3-0-3 Psychology and Education of Children with Learning Disabilities: This course emphasizes psychological diagnostic testing of children with learning disabilities and a concise study of the disorders of visual and auditory perception, language, motor coordination, equilibrium, and laterality. Relationships between diagnostic findings and remediating the child's disabilities are stressed.

ED 314 3-0-3 Early Literacy I: This course is an introduction to reading, history, overview of field and basic instructional procedures. Special emphasis is placed on word recognition comprehension and the sequence of reading skills.

ED 317 3-0-3 Early Literacy II: This course is designed to acquaint the students with techniques of diagnosing pupils' reading problems and methods of solving such problems. The course involves the use of various tests of reading and the use of certain instruments in reading improvement. Laboratory experiences are part of the students' class activities. **Pre-requisites:** ED 320 and ED 314.

ED 320 3-0-3 Diagnosis and Correction of Reading Disabilities: This course examines the causes of reading problems and procedures for their correction. Lectures and laboratory work are utilized in implementing the course. **Pre-requisite:** ED 314.

ED 322 3-0-3 Communicative Arts in Early Childhood Education: Emphasis is placed on the role of language in the socialization process, contributions of literature to child development, and children's original expressions.

ED 334 3-0-3 Science and Number Concepts: This course emphasizes initial teaching techniques in making science and number concepts effective and creative.

ED 344 3-0-3 Language Development and Literature: This course traces the history of language and literature from the beginning up to modern day. It also discusses the influences that language and literature have on early childhood education techniques and practices in today's society.

ED 345 3-0-3 Language Arts/Literature (K-8): Techniques and methods of teaching the six language arts through the use of children's literature will be included in this course. Also, emphasis on genres, authors, illustrators, and diversity in literature as well as effective methods to promote literacy learning through the study of these aspects of literature. Skills in the language arts can be promoted through all areas of the curriculum and doing so will be a focus in this course.

ED 348 2-0-2 Foundations of Education: This course is a study of basic educational philosophy, history, and sociology as a means of understanding contemporary trends and practices in education.

ED 351 3-0-3 Managing Classrooms Behavior: An in-depth study of strategies and procedures that is developmentally appropriate for classroom settings: Students will analyze facets of behavior and prescribe research-based measures to combat inappropriate behavior and encourage acceptable behavior in the classroom.

ED 356 3-0-3 Organizational Procedures for Special Education: This course describes philosophical and historical aspects of special education, reviewing relevant court cases, enactment of laws, development of appropriate parent-teachers-student interactions and the essential need for keeping classroom records.

ED 394 3-0-3 Working with Families in Special Education: This course is designed to provide strategies for productive interactions between special educators and others such as colleagues, employers, parents, service providers, professionals, and students.

ED 396 3-0-3 Collaboration and Consultation in Special Education: This course includes a focus on content and processes related to the practice of collaboration between general and special educators. Topics related to the content of collaboration include various models of collaboration and consultation. Classroom intervention strategies for implementation in the mainstream (e.g., cooperative learning and peer tutoring) as well as more individualized supports and specific aspects of integrating the medical model with educational settings will also be included.

ED 398 3-0-3 Organization, Principles, Procedures for Early Childhood Education: This course is designed to examine educational principles and curricula matters that are relevant to pre-school and primary levels of the school program. Attention will be given to current experimental programs in the field of early childhood education.

ED 403 3-0-3 Seminar in Reading: This course is designed to discuss current instruction in reading, focusing on innovations as well as problems. Special attention will be given to relevant research in the area of reading.

ED 404 3-0-3 Teaching Psychology in The Secondary School: This course examines the methods of teaching psychology in the secondary school. Techniques of effective teaching, preparation of materials, and setting up classroom demonstrations using psychological laboratory apparatus are emphasized in the course. Students are required to prepare teaching units, lesson plans, class demonstrations of psychological phenomena, examinations, and observe classroom teaching.

ED 405 3-0-3 Research in Reading: This course is designed to discuss theories, models, and current research designed to improve language arts instruction and develop understanding of reading and writing processes. An experiential learning design will be implemented in this class to help students move from a reactive to a proactive practitioner in the classroom.

ED 416 3-0-3 Arithmetic for Children: This course is designed to acquaint students with the content knowledge of mathematics as well as methods, strategies, and techniques for teaching math to elementary grades.

ED 421 3-0-3 Seminar in Education (K-8): This seminar is essentially a survey of problems encountered by teachers and students in elementary education and consists of readings, research and discussion in the area of the individual student's interest.

ED 427 3-0-3 Methods and Materials in Social Studies (K-6): This course focus is on design and delivery of a standards-based curriculum centered on social studies. Candidates concentrate on creating appropriate objectives, material, and instructional techniques for the social studies K-6 grades. Candidates learn various strategies for motivating learners, how to select content from diverse sources, how to plan and deliver effective lessons, how to organize into effective instructional groups, how to utilize technology and how to assess what students have learned.

ED 430 3-0-3 Seminar in Early Childhood Education: This course emphasizes a study of social, emotional, physical, and intellectual problems encountered by pre-school children. Individual research projects are selected on the basis of their applicability to sound educational principles of learning and constructive curricular innovations in early childhood education.

ED 435 3-0-3 Science for Children: This course deals with objectives, methods, and materials in science instruction for elementary grades. Proper use of laboratory and field practice is stressed.

ED 451 3-0-3 Teaching Students with Severe and Profound Disabilities: This course deals with characteristic, identification, incidence causes, prognosis and education of the severe and profound mentally retarded. Two field trips per semester will be made to state institutions by students who are enrolled in this course for purposes of observing the SMR.

ED 452 3-0-3 Elementary Curriculum (K-8): This course is designed to give students a background in curriculum development, methods, techniques, and procedures appropriate for teaching the different subjects in (K-8). Special attention will be given to curriculum development, classroom and instructional re-organization such as team teaching, non-gradeness, flexible scheduling, etc. The selection and accumulation of the appropriate sequencing of subjects and teaching materials, including media, are included.

ED 453 3-0-3 Legal and Legislative Foundations of Special Education: This course is designed to review the practical application of laws, regulations, court decisions, and public policy relevant to the supervision of special education services and programs.

ED 458 0-12-12 Directed Teaching (Elementary): Directed teaching includes eight weeks of laboratory experience, observing and teaching in one of the cooperating educational centers, and participation in a pre-seminar and post-seminar. These seminars are designed to identify and discuss practical guidelines for the directed teaching process, with special emphasis given to analysis and evaluation of on-the-field experiences.

ED 468 0-12-12 Directed Teaching (Secondary): Description is the same as ED 458, except laboratory experiences are in secondary schools under the supervision of a supervising teacher for eight weeks.

ED 482 3-0-3 Issues, Trends, and Innovations in Reading: This course focuses on recent issues, trends and innovations in reading instruction and how these can be used to better implement the entire reading process throughout disciplines.

ED 491 3-0-3 Independent Study and Research: Designed to provide honors students with an opportunity to do independent study and research under the direction of the faculty.

ED 492 3-0-3 Independent Study and Research: This course is a continuation of ED 491.

ED 494 3-0-3 Seminar (Honors): This course is designed to provide an opportunity for discussion and examination of timely problems and issues on education. Open to honors students only.

ED 495 3-0-3 Seminar: This course is a continuation of ED 494.

ED 498 3-0-3 Reading in the Secondary School: A course designed to familiarize junior and senior high school teachers with reading methods and materials. Special emphasis is placed on improving reading skills in the subject matter areas and providing suitable material for poor readers.

Engineering Courses

EG 103 3-0-3 General Engineering: An introduction to the engineering profession, its branches and functions. The distinction among the roles and responsibilities of scientists, engineers, technologists, and technicians. Various engineering disciplines are discussed, with more emphasis on electrical engineering and mechanical engineering programs.

EG 104 3-0-3 Engineering Computation Laboratory: This course introduces students to technical computation using Microsoft Excel, and Mathcad software, and C programming language. The emphasis is on the applications of Excel, Mathcad and C programming to problems in engineering, science and technology. It explores the fundamental principles and logic behind the language. Extensive oral and written communications are required.

EG 107 3-0-3 Introduction to Computing for Engineers: This course introduces students to the use of computer programs and application software to solve typical engineering problems. Concepts of critical thinking applied to level mathematics courses in which the students are currently enrolled are also investigated.

EG 210 2-2-3 Circuit Analysis I: A study of the analysis of DC circuits. Topics include Ohm's law, power, energy, series circuit, parallel circuit, series parallel circuits, nodal analysis, mesh analysis, network theories, capacitors, inductors, magnetic circuits etc. **Pre-requisite:** MA 121.

EG 212 2-1-3 Circuit Analysis II: Continuation of EG 210. A study of the analysis of AC circuits. Topics include sinusoidal alternating waveforms, phasors; series R-L, R-C, R-L-C circuits; parallel R-C, R-L, and R-L-C circuits; Mesh analysis, nodal analysis, network theories, ac power, resonance, filters, Bode plots etc. **Pre-requisite:** EG 210.

EG 302 3-0-3 Dynamics: This course introduces the principles of dynamics, treating the motion of a particles, the kinematics and kinetic of plane motion of rigid bodies, and principles of work and energy, impulse and momentum. A study of the fundamental behavior of dynamic systems, their formulation, analysis, and control are also covered in this course. Analytical, graphical and computer techniques are employed, emphasizing mechanical systems and their analogs. **Pre-requisite:** EG 303.

EG 303 3-0-3 Statics: A study of force systems in two and three dimensions composition and resolution of forces and force systems: principle of equilibrium applied to various bodies, simple structures and machine friction, centroid moments of inertia, vector algebra is used where appropriate. **Pre-requisite:** TY 232 or EG 210.

EG 305 3-0-3 Mechanics of Machines: This course introduces the students to graphical and analytical techniques for determining velocity; acceleration, and forces in mechanical linkages, cams, and gear trains, computer solution for kinematic design. **Pre-requisite:** TY 232 or EG 210.

EG 306 2-2-3 Electronics I: Introduction to electronic signals, semiconductors, semiconductor devices, and circuits. Application as semiconductor devices in electronic circuit such as power supplies and amplifiers. Students are required to apply knowledge gained in the course to design and build working electronic systems. Extensive written and oral communications are required. **Pre-requisite:** TY 232 or EG 210.

EG 313 3-0-3 Thermodynamics: An introductory course covering the fundamental concepts of classical thermodynamics regarding the property relationships of solids, liquids, vapors, and gases. In this course, the first and second laws of thermodynamics are applied to the analysis of processes energy of opened and closed systems and cycles. Introduction to heat transfer is also discussed in this course.

EG 314 3-0-3 Mechanics of Materials: An introduction to the mechanical behavior of materials; stress and strain at a point, principal stresses, and strains, stress-strain relationships, determination of stresses and deformations in situation involving axial loading, torsional loading of circular cross sections, and flexural loading of straight and bending members.

EG 320 2-2-3 Fluid Mechanics: Fluid mechanics extends the ideas developed in mechanics and thermodynamics to the study of motion and equilibrium of fluids, namely of liquids and gases. This course introduces the fundamental concepts used in analysis of fluid behavior, pressure in stationary fluids, forces on submerged surfaces, buoyancy, integral methods, the Bernoulli equations and pipeline analysis. Dimensional analysis and similitude, flow measurement and differential control volume analyses with applications are also covered in this class. Introduction to turbulence boundary layers. **Pre-requisite:** TY 232 or EG 210.

EG 370 2-2-3 Programmable Logic Controllers (PLCS): A study of the application of PLCs to control machines and processes by means of stored programs and feedback from input/output devices. Hardware and software components will be considered. Student projects required. **Pre-requisite:** TY 232 or EG 210.

EG 377 3-0-3 Engineering Statistics: This course is designed for engineers, scientists, technologists, and managers who routinely analyze data for product development, qualification, and control. This course covers introduction to probability with applications to engineering. Some of the topics are sets and events, probability space, conditional probability, total probability and Bayes' rule.

Discrete and continuous random variables, cumulative distribution function, probability mass and density functions, expectation, moments, moment generating functions, multiple random variables, functions of random variables. Elements of statistics, hypothesis testing, confidence intervals, least squares; and introduction to random processes will also be discussed.

EG 400 2-2-3 Digital Electronics: Introduction to digital logic and circuits, application of basic digital design and troubleshooting using standard integrated circuits used in industry today; Student designs projects required. Extensive oral and written communications are required. They course covers flip-flops, code converters, multiplexers, demultiplexers, registers, counters, multi-vibrators, interfacing to the analog world, semiconductor memory and programmable arrays. Student project required. Extensive oral and written communications are required. **Pre-requisite:** TY 232 or EG 210.

EG 401 2-2-3 Electrical Drives and Machines: A study of process control and instrumentation; Topics include pressure systems, temperature control, flow control, level control systems, analytical instrumentation, industrial process techniques and instrumentation, process control methods. Student projects required. **Pre-requisite:** TY 232 or EG 210.

EG 404 3-0-3 Electrical Networks: A study of applying network theories to solve electrical circuits and system problems. Topics include Fourier series, convolution, Laplace transforms, state-space analysis and applications. **Pre-requisite:** TY 232 or EG 210.

EG 412 3-0-3 Electronic Communications/Telecommunication: This course introduces the student to the basic concepts of conventional analog electronic communications systems. The basic concepts of the transmission and reception of information using amplitude modulation (AM) and frequency modulation (FM) communications systems are introduced. Equipped with these fundamental concepts, it is expected that the student could understand and expand his/her knowledge to the more modern digital, fiber optic, microwave, satellite, cellular, and PCS telephone communications systems.

EG 417 2-2-3 Automatic Control: A study of automatic control systems. Basic feedback control principles, system modeling, and analysis techniques. Design using frequency response, root locus, and state-variable methods. **Pre-requisite:** TY 232 or EG 210.

EG 418 3-0-3 Electric Power Systems: A study of power systems analysis, power transmission line parameters for symmetric and non-symmetric multi-phase lines, skin effect, long medium and short line representations. Transformer machine and load representations in power system calculations. Load flow studies, fault analysis, power system stability and economic dispatch. **Pre-requisite:** TY 232 or EG 210.

EG 429 1-0-1 Applied Engineering I: The course engages students in various engineering applications including circuit analysis, thermodynamics, mechanics, electronics, electrical networks and static. Students will apply a systematic approach to solve authentic engineering problems. **Pre-requisite:** TY 232 or EG 210.

EG 430 1-0-1 Applied Engineering II: The course engages students in various engineering applications including mechanics, electrical networks, dynamics, control power systems, and PLC. Students will apply a systematic approach to solve authentic engineering problems. **Pre-requisite:** EG 429.

EG 490 0-6-3 Senior Design Project I: Students work independently or in groups to solve practical Engineering/Technology design problem. The design project is selected in consultation with a faculty advisor (also the instructor) who oversees the project and advises the student(s). Prerequisite: Senior standing and consent of instructor.

EG 495 0-6-3 Senior Design Project II: Continuation of EG 490. The design project is selected in consultation with a faculty advisor (also the instructor) who oversees the project and advises the student(s). A final project report (thesis) and defense is required. **Pre-requisite:** EG 490.

English Courses

EN 111A Composition Co-requisite: A one-hour co-requisite course for EN 111, EN 111A is a small-group workshop class for students who meet the requirements for EN 105 or RE 111.

EN 111 3-0-3 Composition I: A course that aims to develop proficiency in the related skills of reading, writing, and discussion through the use of innovative and creative techniques. An emphasis is placed on standard usage through intensive study of sentence construction, paragraph building, essay structures, and grammar. **Pre-requisite:** Placement as determined by entrance examination, or EN 105.

EN 112 3-0-3 Composition II: A study of the principles of grammar, rhetoric, and composition with attention given to expository and argumentative prose through the use of innovative and creative methods and techniques. An additional emphasis is placed on the methods of research and the preparation of research essays. **Pre-requisite:** EN 111.

EN 191 3-0-3 Honors English: A course in reading and writing designed to improve written expression and to introduce the student to types of literature. Emphasis is given to disciplined thinking, productive conversation, and critical insight. **Pre-requisite:** Honors Standing.

EN 192 3-0-3 Honors English: A continuation of EN 191 with attention given to research writing techniques. **Pre-requisites:** Honors standing and either EN 111 or EN 191.

EN 213 3-0-3 Studies in Literature: An introductory course in literature with variable content. The nature of major genres and important literary terms will be emphasized. **Pre-requisite:** EN 112.

EN 214 3-0-3 Special Topics in Literature: A course with variable content, emphasizing the careful study of a selected topic or theme. Typical offerings include topics such as multicultural literature, African American literature, women in literature, and Southern literature. **Pre-requisite:** EN 213.

EN 231 3-0-3 Vocabulary Development: A course designed to enable the student to develop a wider and more effective vocabulary through study of word origins, synonyms, and current usage. Includes practice in the proper use of the dictionary and other semantic resources. **Pre-requisite:** EN 111.

EN 301 3-0-3 Ancient Literature: A study of selected Greek, Roman, and Hebrew authors against the background of Mediterranean and Indo-European mythology. **Pre-requisite:** EN 213.

EN 302 3-0-3 Medieval Literature: A study in selected works and genres from the European Middle Ages including Old English literature, medieval lyrics and ballads, European romances and Arthurian legends, writings by medieval women, Chaucer's *Troilus and Cressida*, and the emergence of drama in the later Middle Ages. Emphasis is placed on how the works reveal an evolving medieval culture and outlook. **Pre-requisite:** EN 213.

EN 303 3-0-3 Literary Theory and Criticism I: A survey course of major developments in Western critical thought, focusing on key figures and texts from the Classical through the Neo-Classical periods. This course provides a solid historical overview of critical theory. **Pre-requisites:** EN 213 and junior standing.

EN 305 3-0-3 American Literature I: A survey course of the major literature in the United States from colonial times through the romanticism movement of the mid-nineteenth century. Historical and cultural trends are studied in relationship to the literary selections. **Pre-requisite:** EN 213.

EN 306 3-0-3 American Literature II: A continuation of EN 305, from the realism movement to the present, emphasizing the studies of twentieth-century socio-cultural themes and trends relevant to the literary selections, including the literatures of minority groups. **Pre-requisite:** EN 213.

EN 307 3-0-3 The British Novel: A study of several classic British novels selected from various literary eras from the inception of the novel to the present. Social, cultural, historic, and aesthetic factors are considered in the analysis of texts. The effects of literary periods on the novel are examined. **Pre-requisite:** EN 213.

EN 308 3-0-3 The American Novel: A study of major American novelists and the various social, literary, and psychological influences that helped shape the genre. Major emphasis is placed on the various literary movements and forces that span the novel, from its initial introduction to more contemporary novelists. **Pre-requisite:** EN 213.

EN 309 3-0-3 Early Black Writers: A study of the literature of Black people in America from its beginnings through the World War II period. The writers and their works are studied in relation to the evolution of cultural, historical, political, and social perspectives in the United States. **Pre-requisite:** EN 213.

EN 310 3-0-3 Modern Black Writers: A study of the contemporary literature of Black people in America from the post-World War period through the present times, with emphasis on the socio-cultural and political changes reflected in the literature of the period. **Pre-requisite:** EN 213.

EN 311 3-0-3 British Literature I: A general survey of British literature from its beginnings through eighteenth-century Neo-Classicism. Emphasis is placed on the historical, cultural, and intellectual settings of the works. **Pre-requisite:** EN 213.

EN 312 3-0-3 British Literature II: A continuation of EN 311, the course surveys the pre-Romantic writers through contemporary English writers, emphasizing relevant cultural, historical, and intellectual changes and their effects on the concerns and styles of the literature of the period. **Pre-requisite:** EN 213.

EN 315 3-0-3 Introduction to Linguistics: A course which concentrates on American linguistics, including individual sounds (phonemes) used by speakers of the language, the categories of meaning units made up of sound combinations (morphemes), and the systems of combining these units to communicate complex ideas and experiences (syntax). Introductions to transformational grammar and dialectal variation are included. **Pre-requisite:** EN 112.

EN 316 3-0-3 Advanced Composition: An advanced course in effective written communication, emphasizing the reasoning process in argumentation and persuasion. Attention is focused on rational organization of written and oral compositions and on the avoidance of common logical fallacies. **Pre-requisite:** EN 112.

EN 317 3-0-3 Global Literature I: An analysis of selected literary works from a range of nationalities and cultures. The course explores cultural, historical, and theoretical contexts. **Pre-requisite:** EN 213.

EN 318 3-0-3 Global Literature II: A study of international authors and their fiction after World War I. The course will explore literature (in translation) from a specific region or writer for whom English is not a first language and the cultural, historical/political, and theoretical contexts for both writers and texts. **Pre-requisite:** EN 213.

EN 320 3-0-3 Introduction to Film as Literature: An examination of both foreign and domestic film using the language, theories, and interpretive techniques applied to literature. Students will learn various methods of analyzing the literary aspects of film. **Pre-requisite:** EN 213.

EN 324 3-0-3 Renaissance Literature: A reading of selected works from the English and European Renaissance, designed to illustrate some of the major concerns, themes, and conventions of Renaissance writers. **Pre-requisite:** EN 213.

EN 325 3-0-3 Shakespeare: A study of representative works by William Shakespeare, including poetry, tragedies, comedies, and histories. Close reading of a text is emphasized to illustrate the artistic merits and thematic concerns of each work. An historical and social understanding of the Elizabethan period and the settings of individual works are stressed. **Pre-requisite:** EN 213.

EN 326 3-0-3 Seventeenth-Century English Literature: A study of the major writers of the century, emphasizing the metaphysical poets and the works of John Milton. **Pre-requisite:** EN 213.

EN 327 3-0- Neo-Classical Literature: An investigation of the neo-classical movement in European literature of the 17th and 18th centuries. **Pre-requisite:** EN 213.

EN 328 3-0-3 The Romantic Movement: A study of selected writers of the Romantic period. **Pre-requisite:** EN 213.

EN 329 3-0-3 Nineteenth-Century Literature: Prose and poetry of the 19th century, excluding the Romantics. Attention is paid to the historical and cultural background affecting the literature of the period. **Pre-requisite:** EN 213.

EN 330 3-0-3 Contemporary Literature: A course of variable content which explores selected literary works, trends, and influences on both sides of the Atlantic since approximately 1950. **Pre-requisite:** EN 213.

EN 331 3-0-3 Studies in Drama: An exploration of drama as a genre, emphasizing the types of drama associated with various periods and cultures. **Pre-requisite:** EN 213.

EN 332 3-0-3 Studies in Poetry: An exploration of poetry as a genre, emphasizing a wide variety of types and styles. **Pre-requisite:** EN 213.

EN 333 3-0-3 Studies in the Short Story: An exploration of the short story as a genre. **Pre-requisite:** EN 213.

EN 343 3-0-3 Early American Literature: A survey of American literature and thought from its beginnings to the adoption of the Constitution. Includes representative works such as travel and exploration reports, captivity narrative diaries, journals, autobiographies, sermons and poetry. **Pre-requisite:** EN 213.

EN 345 3-0-3 American Romanticism: A study of the literature and thought of American Romanticism, tracing its development and distinguishing it from the Neo-Classical period which preceded it and from the period of Literary Realism which followed. The course places Romanticism in its cultural context, correlating Romantic attitudes with the growing national self-awareness of the period. **Pre-requisite:** EN 213.

EN 346 3-0-3 American Realism and Naturalism: An examination of Literary Realism and Naturalism in American literature. The course explores the ways in which art and social conscience intersect in American literature at the end of the nineteenth and beginning of the twentieth centuries, paying particular attention to the ferment of contemporary issues to which the literature of the period responds. **Pre-requisite:** EN 213.

EN 347 3-0-3 Southern Literature: A survey of Southern Literature from the colonial period through the present day. Emphasis is on major Southern writers and the culture that shaped their work. **Pre-requisite:** EN 213.

EN 348 3-0-3 Modernisms: This course will examine the emergence and evolution of literary modernism within national, transatlantic, and even global contexts. One of the key assumptions of this class is that literary modernism is cosmopolitan and troubles the idea of national literatures. A related assumption is that modernism, as an aesthetic response to modernity and an increasingly globalized world, is an ongoing phenomenon that is difficult to separate from related periods and movements, including postmodernism. Instructors may choose to focus on transatlantic Anglophone modernism, in which case the bulk of the readings would come from the US, England, and Ireland, or instructors may survey or (narrow their focus on) other “modernisms,” such as the postcolonial literature of the African diaspora. **Pre-requisite:** EN 213.

EN 351 3-0-3 Technical Writing: A course designed for students majoring in the sciences, business, vocational, and technical fields, or for students interested in professional writing. Using a workshop approach, the course teaches the fundamentals of effective writing within the student’s chosen field. **Pre-requisite:** EN 112.

EN 352 3-0-3 Research Writing: Provides a survey of basic bibliographic tools in addition to extensive practice in the design and execution of research projects. **Pre-requisite:** EN 112.

EN 360 3-0-3 Special Topics in Literature I: In this course, students will study literary works written by a specific author or authors, representative of a literary movement or produced in a specific time or place.

EN 361 3-0-3 Special Topics in Literature II: In this course, students will study literary works written by a specific author or authors, representative of a literary movement or produced in a specific time or place.

EN 391 3-0-3 Best Practices in Teaching English I: An introduction to best practices in teaching English in the secondary schools. Designed to prepare students to teach effectively, the course focuses on pedagogical theory and best practices in the discipline. **Pre-requisite:** EN 112.

EN 403 3-0-3 Literary Theory and Criticism II: A continuation of EN 303, this survey course examines the profound shifts of Western critical thought during the last 150 years by focusing on key figures and texts. This course provides a solid historical overview of critical theory. **Pre-requisite:** EN 303.

EN 406 3-0-3 Adolescent Literature: A course introducing English Education majors to literature appropriate for adolescents of varying cultures. **Pre-requisite:** EN 213.

EN 407 3-0-3 History of the English Language: A study of the development of the English language from its beginnings to the present, with attention to the social context of the language and the varieties of English worldwide. **Pre-requisite:** EN 112.

EN 457 3-0-3 Creative Writing: A laboratory approach to imaginative writing in which students create short stories, poems, and short plays. An emphasis will be placed on drafting and revision. Class time will largely be spent in readings and critiques. **Pre-requisite:** EN 213.

EN 480 3-0-3 Seminar: A course in which senior English majors explore a selected topic in close collaboration with a faculty member. **Pre-requisites:** English major and senior standing for literature majors; English major and junior standing for education majors.

EN 485 3-0-3 Best Practices in Teaching English II: A continuation of EN 391, this course extends the student's understanding and incorporation of best practices in teaching English in the secondary schools. **Pre-requisites:** EN 391 and Teacher Ed card. Restricted course.

Finance Courses

FI 200 3-0-3 Personal Finance: This course introduces students to issues affecting financial behaviors and attitudes of individuals. Emphasis is on the fundamentals of personal financial planning and basic financial activities-borrowing sources/costs: financial aid, auto, property, life insurance, home ownership financing, personal investments and retirement strategy and long-range personal financial planning. **Pre-requisites:** Freshman, and Sophomore standing.

FI 301 3-0-3 Principles of Finance: This course will introduce students to basic concepts of finance. Topics such as ratio analysis, risk and return, time-value of money, stocks and bonds valuation, cost of capital, cash flow estimation, capital budgeting, capital structure, dividend policy, financial forecasting, and hybrid financing are covered in this course. **Pre-requisites:** MA 121, EC 201 or 202, AC 213 or 214.

FI 305 3-0-3 Financial Institution and Markets: This course will offer a study of Federal Reserve System, various financial institutions and markets, their sources and uses of funds with emphasis on the analysis of the nature of their credits and their role on economic activity. The course will also offer analysis of relationships or interactions between the United States financial systems and those of other nations. **Pre-requisite:** FI 301.

FI 321 3-0-3 International Financial Management: This course is a study of principles and practices guiding financial management of the multinational entities. Emphasis is placed on factors that differentiate multinational enterprises from domestic financial management. **Pre-requisite:** FI 301.

FI 409 3-0-3 Financial Management: Financial management study includes logical framework for blending theory and practice- the acquisition, management, and financing of resources including theories and tools utilized by financial manager both in domestic and international environment. Review of the field of finance will be revisited. Topics covered include financial analysis, forecasting and budgeting, time value of money, sources and uses of capital, corporate financial policies and strategies, financial structure, and financial conditions in management decision making. **Pre-requisite:** FI 301.

FI 415 3-0-3 Banks and Financial Institutions: This course is a study of banking and financial services environment, their functional areas and tools and techniques required to efficiently and effectively manage problems being faced by this industry in a highly competitive and dynamic environment. **Pre-requisite:** FI 305.

FI 425 3-0-3 Investments: A study to provide students with an understanding of investment environments in the United States and international security markets, knowledge of valuations of various investment instruments, including stocks, bonds, options, and futures. Other topics discussed in this course include efficient market hypothesis, asset pricing theory, portfolio management, asset valuation, fundamental and technical analysis, performance evaluation, and international diversification. **Pre-requisite:** FI 301.

FI 451 3-0-3 Insurance and Risk Management: A study of the field of insurance and risk management as it applies to individuals and businesses. The needs and purposes of insurance and risk management are emphasized. **Pre-requisite:** FI 301.

FI 468 3-0-3 Real Estate Finance: A study of the principles and procedures applied in the operation of the real estate business. The topics discussed include: real estate brokerage, advertising, selling, deeds, titles, mortgages, liens, leases, taxes, contact, valuations, financing and investments. **Pre-requisite:** FI 301.

FI 475 3-0-3 Income Property Valuation: A study of principles and methods of financing real estate, sources of funds and analytical techniques for making investment decisions. **Pre-requisite:** FI 468.

FI 478 3-0-3 Real Estate Valuation and Appraisal of Residential Property: A study of the theory and practice as applied to residential property. FI 468 or consent of instructor.

FI 480 3-0-3 Financial Statement Analysis: A comprehensive study of financial statements to aid in the financial decision making process. The strategy of financial statement analysis will also be covered. **Pre-requisite:** FI 301.

FI 492 3-0-3 Financial Derivatives, Options and Futures: A study of concepts, products, management, and markets for financial derivatives. Strategies of risk management and construction of derivative securities will also be covered. **Pre-requisite:** FI 301.

FI 495 3-0-3 Special Topics in Finance: A study of contemporary issues in the field of finance. **Pre-requisite:** Senior standing and permission of the instructor.

Food, Nutrition and Community Health Sciences Courses

FN 210 3-0-3 Careers and Ethics in FNCHS. Introduction to the fields of food, nutrition, and community health sciences and the process of career preparation and planning. Philosophy and goals of academic programs, curricula, certifications, career opportunities and potential post-graduate opportunities. This course also reviews the Code of Ethics for the associated fields.

FN 218 3-0-3 Introduction to Community and Public Health. Introduces the student to the core functions of public health with an emphasis on community health programs and current trends of population health. Exposes the student to the organizational structure of federal, state, and local health-related agencies and examines the interrelationship of political, social, cultural, and economic dimensions of community-based population health activities.

FN 316 1-0-1 Current Trends in FNCHS. Students will explore recent developments in the fields of food nutrition and community health sciences. Students will begin preparations for final senior project. Students will review topics of interest and develop research questions related to their track of study. Students will present their findings for approval of senior research and prepare final literature review. This course must be taken before enrolling in HS 493. Prerequisite: ND 225.

FN 323 3-0-3 Principles of Epidemiology Application of basic concepts of epidemiology to nutrition and public health to include epidemiological research design, estimating outcome measures, determining cause and effect and effectiveness of interventions to prevent and treat disease.

FN 324 3-0-3 Health Policy Law & Economics. Provides students with answers to and analytic frameworks for the complex questions, including in-depth discussions of the essential policy, ethical, and legal issues impacting and flowing out of the healthcare and public health systems and the way health policies and laws are formulated. This course is an introduction to the seminal issues in U.S. health policy and law and economics.

FN 329 2-0-2 Introduction to Grant Writing and Management. The planning process from conceptualization to operationalized activities and tasks for non-profits and public programs is introduced. A step-by-step guide for completing a grant writing process will be used to illustrate the strategies involved in program planning and evaluations for community health, education and/or promotion.

FN 330 3-0-3 Multicultural and Global Health. This course will investigate, discuss, and debate major emerging global health and nutrition issues. Major health, nutrition, public health education and promotion concerns throughout the world will be reviewed and discussed.

FN 332 3-0-3 Health Education and Promotion. This course will provide an introduction to the discipline of health education and the practice of health promotions. Providing insight and understanding of the health promotion triad of health education, prevention and protection while offering a strong theoretical base, applications of models and theories of behavior change. Also devotes attention to competencies and skills, ethical responsibilities that may affect the way health education is performed.

FN 400 3-0-3 Health, Nutrition and Disease. This course will examine the relationship between diet, nutrition and disease. The methodology used to determine the roles of nutrients, foods, and diet patterns in the promotion, prevention, management and treatment of diseases will be examined. Specific chronic diseases and conditions such as cardiovascular disease, cancer, diabetes, obesity, gastrointestinal disorders and osteoporosis will be studied in depth. This course will also cover the interactions between nutrients, biochemical, and pathophysiological processes (such as inflammation and epigenetic factors) in relation to health.

FN 420 3-0-3 Social Marketing in Health Communication. Designed to help students identify, analyze, and apply concepts, theories and methodologies related to health communication in health education and promotion in various settings and at various levels of influence. Emphasis will be placed on learning how to design, communicate and evaluate effective health promotion messages.

FN 424 3-1-4 Community Health Program Planning. This course presents methods for the identification of population-based needs for public health intervention, education and promotions, and the development of programs to meet those needs. The course also examines the evaluation of the effectiveness of these public health interventions. The course integrates several knowledge and skill areas including: research methods, epidemiology, biostatistics, proposal writing, budget planning, project management, and program evaluation. The one-hour lab will provide opportunities for groups to compile information and work as a team to complete major community health projects.

FN 426 3-0-3 Health Disparities. Understanding of health disparities existing at national and local levels through a social justice lens and the role of health literate communication in reducing health disparities, as well as its limitations. The course will examine the socio-economic, behavior, biological, and environmental impacts on health disparities and health literacy.

FN 445 3-0-3 Community Health Advocacy This course establishes a framework within which advocacy is understood to be an essential role of the public health professional in promoting, implementing, and sustaining effective public health policy. Through case studies, readings, lectures, role plays, field research and action planning, students will develop the skills needed to be an effective advocate for rural and community health.

FN 448 3-0-3 Behavior and Health Theories. Provide a thorough discussion of the determinants of health-related behavior, health behavior theory (HBT), and how theory can be utilized in health education & behavior research and practice. Emphasis will be placed on how various theories of health behavior are used to design, implement, and evaluate behavior change and health education interventions. This course focuses on the presentation and critical analysis of the role of theory in health promotion and eliciting behavior change, the description of different theories being utilized in behavior change interventions and the application and evaluation of these theories in practice.

FN 451 6-0-6 Practicum. Application of food, nutrition and or health education concepts and skills in a practical setting while serving as a nutrition or health education resource person. Student are required to complete assignments and projects as provided by the practicum coordinator. Departmental Approval Required.

FN 485 3-0-3 Professional/Scientific Writing. The focus of this course is on scientific research writing. Students complete a series of assignments in research writing; complete a newsletter article, and a manuscript that is distributed electronically to FNCHS faculty and staff in the School of Agriculture and Applied Sciences at the end of the semester. Students are required to write a peer reviewed article to successfully pass the course.

FN 495 3-0-3 CHES Exam Preparation: This course is designed to prepare students for taking the Certified Health Education Specialist (CHES) exam. Students are required to pass the practice exam. Students will be encouraged to take the exam at least 30 days prior to graduation. There is a reduced fee provided for students who have completed all coursework within 90 days of taking the exam and enrolled full time.

Fitness Training Courses

FT 200 2-0-2 Beginning Spring Cycle Fitness: The class is the beginner phase of spin cycling. It introduces the parts and the functionality of the cycle and walks the students through all the particulars and safety associated with riding the cycle. The class improves the students' endurance and stamina and facilitates and enhances weight loss and fitness by starting them at their individual baselines pertaining to their body weight, skill set, and fitness level and by providing an incrementally and a strategically progressive timeframe and resistance for cycling.

FT 201 2-0-2 Beginning Cardio Fitness and Toning: This class is the beginner phase of cardio-fitness and toning. It introduces the parts and the functionality of the cardio-machines and walks the students through all the particulars and safety associated with the machines before actually participating on them. The class improves the students' cardio-endurance and toning and enhances weight loss and fitness by starting at their individual baselines pertaining to their body weight, skill set, and fitness and by providing an incrementally and a strategically progressive timeframe and resistance for effective workouts on the cardio-machines.

FT 202 2-0-2 Beginning Strength Training: The class is the beginner phase of strength training. It introduces the various equipment, weights, and machines of strength training and the functionality of such apparatus and teaches students all the particulars and safety associated with strength training before actually executing any lifts. The class increases the students' muscular strength, reduces bodily adipose tissues, fortifies the skeletal system, transforms the body's physique, and fosters self-esteem and concept, and it facilitates and enhances weight loss and fitness by starting at the **students'** individual baselines pertaining to their strength level and skill set and by providing an incrementally and a strategically progressive timeframe for increases in the addition of weight according to their progression on lifts underlying their prescribed regimen.

FT 203 2-0-2 Aerobic Activities: The class engages students in meticulously planned, energetic, contemporary, and various aerobic activities that encompass aerobic dances, cardio conditioning exercises, muscular toning exercises (lower and upper body), and continually choreographed activities. It increases the students' stamina, flexibility, balance, agility, and strength. The focus of the class is encouraging, facilitating, and enabling weight loss; reducing bodily adipose tissue; fostering self-esteem, self-concept, and perceived confidence; and a thoughtfulness to physical appearance. It promotes awareness for lifelong physical activity, conscientiousness for maintaining a healthy lifestyle, and a commitment to avoiding being overweight or obese.

FT 204 2-0-2 Beginning Plyometric Training: The beginning class introduces the different drills underlying plyometric. It instructs and engages students in minimally lower and upper body plyometric drills. The class augments the students' stamina, flexibility, balance, agility, and strength, and it promotes awareness for lifelong physical activity, conscientiousness for maintaining a healthy lifestyle, and a commitment to avoiding being overweight or obese.

FT 300 2-0-2 Intermediate Spin Cycle Fitness: The class is the intermediate phase of spin cycling. It requires students to exert considerable or submaximal energy and effort on the spin cycle by trying to master at least between level 2 or 3 resistances on it within a specified timeframe - 30 to 60 minutes. It also improves the students' mental toughness, confidence, endurance, stamina, and lower leg strength; facilitates and enhances their ability for weight loss and improves their overall individual fitness; and promotes an awareness for lifelong physical activity, a conscientiousness for maintaining a healthy lifestyle, and a commitment to avoiding being overweight or obese

FT 302 2-0-2 Intermediate Strength Training: The class is the immediate phase of strength training. It provides students with a thoughtfully schematic workout regimen that serves as the blueprint that enables them to acquire form, techniques, and strength to be lifting weights at their submaximal muscular capacity throughout or by the end of the class session. The class increases the students' muscular strength and power, reduces bodily adipose tissues, fortifies the skeletal system, transforms the body's physique, and fosters self-esteem, self-concept, and perceived confidence, and it facilitates and enhances weight loss, lean muscular mass and overall physical appearance and muscular fitness.

FT 304 2-0-2 Intermediate Plyometric Training: The class is immediate plyometric training. It instructs and engages students in sub-maximal execution, exertion, and stringent plyometric exercises and resistance of the lower and upper body. The class augments the students' stamina, flexibility, balance, agility, and strength, and it promotes awareness for lifelong physical activity, conscientiousness for maintaining a healthy lifestyle, and a commitment to avoiding being overweight or obese.

FT 305 2-0-2 Intermediate Cardio Fitness and Toning: The class is the intermediate phase of cardio-fitness and toning. It requires students to exert submaximal energy on the cardio-machines by trying to master at least walking or jogging speeds of 2.0 to 2.3 with machine elevations up to 1 to 2 degrees within a specified timeframe—30 to 60 minutes.

It also improves the students' mental toughness, confidence, endurance, stamina, and lower leg strength; facilitates and enhances their ability for weight loss and improved their overall individual fitness; and promotes an awareness for lifelong physical activity, a conscientiousness for maintaining a healthy lifestyle, and a commitment to avoiding being overweight or obese.

FT 400 2-0-2 Advanced Spin Cycle Fitness: The class is the advanced phase of spin cycling. It requires students to exert maximal energy on the spin cycle by trying to master at least between level 5 or 6 resistance on it within a specified timeframe—30 to 60 minutes. It also improves the students' mental toughness, confidence, endurance, stamina, and lower leg strength; facilitates and enhances their ability for weight loss and improved their overall individual fitness; and promotes an awareness for lifelong physical activity, a conscientiousness for maintaining a healthy lifestyle, and a commitment to avoiding being overweight or obese.

FT 402 2-0-2 Advanced Strength Training: The class is the advanced phase of strength training. It provides students with a thoughtfully schematic workout regimen that serves as the blueprint that enables them to acquire form, techniques, and strength to be lifting weights at their maximal muscular capacity throughout or by the end of the class session. The class increases the students' muscular strength and power, reduces bodily adipose tissues, fortifies the skeletal system, transforms the body's physique, and fosters self-esteem, self-concept, and perceived confidence, and it facilitates and enhances weight loss, lean muscular mass and overall physical appearance and muscular fitness.

FT 404 2-0-2 Advanced Plyometric Training: The class is advanced plyometric training. It instructs and engages students in maximal execution, exertion, stringent, and very cumbersome plyometric exercises and resistance of the lower and upper body. The class augments the students' stamina, flexibility, balance, agility, and strength, and it promotes awareness for lifelong physical activity, conscientiousness for maintaining a healthy lifestyle, and commitment to avoiding being overweight or obese.

FT 406 2-0-2 Advanced Cardio Fitness and Toning: The class is the advanced phase of cardio-fitness and toning. It requires students to exert maximal energy on the cardio-machines by trying to master at least walking or jogging speeds of 2.3 to 2.6 with machine elevations up to 2 to 4 degrees within a specified timeframe—30 to 60 minutes. It also improves the students' mental toughness, confidence, endurance, stamina, and lower leg strength; facilitates and enhances their ability for weight loss and improved their overall individual fitness; and promotes an awareness for lifelong physical activity, a conscientiousness for maintaining a healthy lifestyle, and a commitment to avoiding being overweight or obese.

Survival Skills Courses

GC 102 1-0-1 Survival Skills I: This course offers an intensive regimen of topics and activities designed for students to develop and expand the skills necessary to succeed in higher education. Included but not limited to, are time management, note-taking skills, critical reading and thinking, test-taking skills, and effective relationships in a collegial society.

GC 103 1-0-1 Survival Skills II: This course is a continuation of GC 102. It focuses on the identification and development of student strengths, learning styles, advanced critical thinking, proper physical and mental health, personal financial management, and tolerance and diversity.

Global Programs Courses

GP 101 3-0-3 Study Abroad (Freshman) Level I: Level one of a freshman level course taken in a study abroad program. The abroad course will involve traditional foreign languages such as Spanish, French, Portuguese, German, or less studied languages, e.g., Arabic, Hindi, Chinese, Japanese or others classified as critical need languages. Introductory material involving cross-cultural training in a global context may be covered as well.

GP 102 3-0-3 Study Abroad (Freshman) Level II: Level two of a freshman course taken in a study abroad program. The course may involve a foreign language or cross-cultural training in continuation of GP 101.

GP 201 3-0-3 Study Abroad (Sophomore) Level I: Level one of a sophomore course taken in a study abroad program.

GP 202 3-0-3 Study Abroad (Sophomore) Level II: Level two of sophomore course taken in a study abroad program.

GP 211 3-0-3 Chinese I: Chinese GP 211 is designed to offer an introductory guideline of the Chinese Language (Mandarin) with a basic knowledge of listening, speaking, reading and writing in simplified Chinese. Students are expected to grasp Chinese language at an elementary level, broaden their knowledge of Chinese language and culture.

GP 212 3-0-3 Chinese II: Continuation of GP 211. Students completing GP 212 are expected to demonstrate listening, speaking, reading and writing and speaking at the intermediate level.

GP 213 3-0-3 Russian I: This course covers all the basics of the Russian grammar, including four cases, verbal conjugation, and verbs of motion. This course is also designed to develop speaking, reading, writing and listening skills in complex, so that by the end of the semester students will be able to communicate Russian at the elementary level.

GP 214 3-0-3 Russian II: Continuation of Russian GP 213. Prerequisite GP 213.

GP 301 3-0-3 Study Abroad (Junior) Level I: Level one of a junior level course (or its equivalent) taken in a study abroad program.

GP 302 3-0-3 Study Abroad (Junior) Level II: Level two of a junior course (or its equivalent) taken in a study abroad program.

GP 305 3-0-3 Study Abroad (Junior) Level V: Advanced junior or beginning senior level course (or equivalent) taken in an approved study abroad program. Furthermore, this course may be taught on campus to cover international development and trade, international agriculture, international business; global health, (or other topics). When taught on campus, the course will include an experiential learning study-tour to a selected foreign country.

GP 400 3-0-3 Study Abroad (Senior) Level I: Senior level course (or its equivalent) taken in a study abroad program.

GP 401 6-0-6 Study Abroad/Undergraduate Global Research Experiences: This course is designed to provide broad-based international experiences to students in their respective field of study. Students register for this course while undergoing a study abroad program at a foreign University, international research center or institute. Additionally, the requirements of this course may be fulfilled through an intensive University sponsored short term study tour or research abroad program. Pre-approval of Global Programs, the academic advisor, and major department are required.

GP 402 3-0-3 Study Abroad (Senior) Level II: Advanced senior level course (or its equivalent) taken in a study abroad program.

GP 499 3-0-3 Global Issues and Foreign Service Exam Preparation: This course will cover advanced research, discussions and presentations pertaining to ongoing global issues (e.g. Economics of Global Trade and Policies in Agriculture; Global Business Initiatives and Impact; Global Environment and Climate Change; Global Political Systems; International Development Organizations. In Addition, the course will cover modules to prepare for the Foreign Service Officer Test (FSOT) including the 13 dimensions required of a Foreign Service Officer.

GP 601 6-0-6 Graduate Global Research Experiences: This course is taken by graduate students who have been accepted to do research at a foreign University, international research center or institute. The program of research must be pre-approved by the student's on-campus academic advisor, the academic department, and the School of Graduate Studies. Additionally, graduate students may take this course through an intensive University-sponsored short term study tour or research abroad program. All graduate students registered for this course are expected to present a seminar at the University upon their return.

Geography Courses

GR 315 3-0-3 Introduction to Geography: This course is concerned with the principles and theories of geography, with emphasis upon socio-cultural and political geography. The central focus will be on the relationship of climate, terrain, and natural resources to national and human resources available in various geographic regions.

GR 318 3-0-3 World Geography: A study of an explanatory geographic survey of eight major regions. Emphasizing both human and physical geography, this course surveys each region as to location, component countries, world roles, distinctive physical and cultural characteristics, relocation to other world areas, and major problems. Major attention is given to important individual countries and groups of countries within each world region. **Pre-requisite:** Junior standing.

Government Courses

GT 101 3-0-3 American Government: Introduction to the scope and contents of the American system of government and to the methods of analysis used by Political Scientists, plus an examination of the theory and practice of politics. This course is designed to give the student a solid foundation in the discipline to support his more advanced work.

GT 102 3-0-3 American Government: A study of the American system of government, with emphasis on the historical factors which influence the uniqueness of the Constitution, the democratic process, the pattern of national government, with its separation of powers, and the philosophy that guides domestic policies and international affairs. Special attention is given to the functions at a national level of the legislative, executive, and judicial branches of government.

GT 313 3-0-3 State and Local Government: Constitutional relationships between the state and the federal government, and including the relationship between states; the organization and functions of the executive, legislative and judicial branches at the state and local levels.

GT 318 3-0-3 Comparative Government: A systematic examination of the similarities and differences of political experiences by a wide variety of political systems in the modern world with emphasis on historical and social impacts on political settings, political developments and changes, structure and performance of political systems, citizen participation, and public policy and its impacts. **Pre-requisites:** GT 101 and 102.

GT 318 3-0-3 Comparative Government: A systemic examination of the similarities and differences of political experiences by a wide variety of political systems in the modern world with emphasis on historical and social impacts on political settings, political developments and changes, structure and performance of political systems, citizen participation, and public policy and its impacts.

GT 321 3-0-3 Public Administration: A study of management of the public sector including personnel administration, communication, decision-making, budgeting, and public employee union-management relations. **Pre-requisites:** GT 101 and 102.

GT 322 3-0-3 Constitutional Law I: An examination of constitutional law in the United States with special emphasis on cases dealing with the framework, powers, and functions of the federal system. **Pre-requisites:** GT 101 and 102.

GT 332 3-0-3 Constitutional Law II: A continuation of Constitutional Law I with emphasis on individual rights and liberties. **Pre-requisite:** GT 322.

GT 327 3-0-3 Judicial Process: A study of American courts as political subsystems with special emphasis on judicial decision making, the development of public policy through the judicial process, and theories of law and jurisprudence. **Pre-requisites:** GT 101, 102, and 322.

GT 340 3-0-3 Pre-Law Seminar: This course is designed to prepare prospective students for law school through refinement of essential communications, analytical and methodological skills. **Pre-requisites:** GT 101, 102, and 322.

GT 347 3-0-3 Organization Theory and Analysis: Theories, of the goal, structure, and process of organization in relation to group behavior, technology, and external environment. **Pre-requisites:** GT 101 and 102.

GT 347 3-0-3 Political Theory: Political thinkers, theorists, and movements from the Greeks, through the Middle Ages. **Pre-requisites:** GT 101 and 102.

GT 400 3-0-3 Politics of Afro-Americans: The historical and contemporary role played by Black people in the political process, and their efforts to reform and modify race and nationality group relations within American society. Discussion of external forces which impact upon the Afro-Americans, such as the relationship of the Afro-America to Africa. **Pre-requisites:** GT 101 and 102.

GT 400 3-0-3 Politics of American America: A review and analysis of the role and position of Blacks in American politics from earliest times to the present. Special attention will be given to the "Civil Rights Era."

GT 420 3-0-3 Problems in American Politics: Various topics as scheduled, e.g. the presidency and foreign policy; politics of the budgetary process; the politics of organization; peace politics; political campaigning; communications as politics; federalism; comparative state politics; civil rights; and civil liberties. **Pre-requisite:** GT 101, 102, 322.

GT 421 3-0-3 Congress and the Presidency: The role of the national, legislative and executive branches in the policy making process. **Pre-requisites:** GT 101 and 102.

GT 423 3-0-3 Public Policy: Methods of policy research and analysis, and substantive issues in health, welfare, education, regulatory, agriculture, transportation, environmental, and other policies. **Pre-requisites:** GT 101 and 102.

GT 442 3-0-3 Introduction to International Law: Development and theoretical foundations of international law of peace, war and neutrality; treaty law; recognition, war crimes, law enforcement, state responsibility, and diplomatic immunities under the United Nations. **Pre-requisites:** GT 101, 102 and 340.

GT 442 3-0-3 Public Administration: Advanced study in leadership, communication, planning, policy analysis, and program evaluation; directed research in selected substantive policy areas.

GT 445 3-0-3 International Relations: Examination of selected problems such as financing, international administration, economic and social development, political-military actions. Prospects and problems of development. **Pre-requisite:** GT 340.

GT 445 3-0-3 International Relations: Analysis of general literature of international relations, levels of international political systems, international conflicts and co-operations, current political problems. **Pre-requisites:** GT 101 and 102.

Human Development and Family Science Courses

HD 201 3-0-3 Human Development: This course is designed to provide a comprehensive account of human development across the lifespan; to build theoretical and empirical foundations that enable students to become educated and critical interpreters of developmental information; and to present a blend of basic and applied research as well as controversial topics and emerging trends, to demonstrate connections between the laboratory and life and the dynamic nature of the science of human development.

HD 302 3-0-3 Child Care Administration: This course introduces students to managerial practices and procedures (planning, delegation, and supervision) as they apply to the operation of programs for young children using Mississippi State Department of Health Child Care Regulations and other local, state and national standards of practice (NAEYC, AAFCS, MS State Department of Education). Instruction type: Lecture/Lab (15 hours).

HD 317 3-0-3 Early Intervention: The course is designed to provide students an overview of the philosophy and history of early intervention. Students also gain insights into various early intervention service delivery models such as universal design. Legal and social history is used as a backdrop for teaching the evolution of early intervention. Practices in early childhood education, special education and early intervention and their implications for current practice are discussed. Instruction type: Lecture/Lab (15 hours).

HD 318 3-0-3 Early Literacy: This course is designed to explore early literacy development- reading, writing, listening, and speaking from birth through age 5. Emphasis is on current research in language theory, literacy definitions, concepts of literacy, foundations of literacy growth and needs, brain-based learning, family literacy, prevention of reading difficulties, and early literacy practices. Students will analyze literacy stages and plan appropriate materials and activities useful in fostering early literacy in young children. Instruction type: Lecture/Lab (15 hours).

HD 320 3-0-3 Guidance of Young Children: The course provides future child-care providers with practical problem-solving techniques that support social and emotional development in young children. Emphasis is placed on the importance of environment first and then progressing to listening skills, negotiating, conflict resolution, and setting limits. Students will have the opportunity to observe real life examples, sample dialogs, and case studies that vividly bring to life the daily interaction of children and teachers in the childcare setting. Instruction type: Lecture/Lab (15 hours).

HD 331 3-0-3 Parenting: This course introduces students to families and their transition into parenthood. The relationships between parents and children are studied, including the lens of parenting structures, styles and practices. Patterns of home and school interaction are studied. Instruction type: Lecture/Lab (15 hours).

HD 335 3-0-3 Public Policies in Child Care: The focus of the course is on the broader perspectives that have guided and shaped policies in the area of child development. Beginning with an historical view of child development, emphasis will be placed on the emergence of modern children in a multicultural society. The particular focus of the course will be the development of social policy as it affects families and children from different cultural backgrounds and the childcare industry.

HD 347 3-0-3 Infant Development: This course is the study of infant growth, development and his/her environment from conception to two years of age. Instruction type: Lecture/Lab (15 hours).

HD 353 3-0-3 Child Development: A study of developmental characteristics of children, including physical, motor, emotional, intellectual, and social characteristics, ages 9-19 years; related laboratory experiences are included and observations are provided in real life settings.

HD 367 3-0-3 Creative Arts: Students study the concept of creative activities in the development of cognitive competency; methods of teaching creative activities to children; techniques and methods that support the development of creative behavioral and thinking potentials in children as a natural means of their organization; and utilization of environmental stimuli. Instruction type: Lecture/Lab (15 hours).

HD 420 3-0-3 Child and Community Life: CD 420: Child and Community Life: This course examines the influence of environmental, psychological, cultural and societal factors on the growth and development of young children within the family. Focus will be on developing positive relationships with diverse families (diversity in social, cultural, racial, cultural, linguistic, structural and economic aspects) in strengthening adult-child relationships and parent-staff relationships in home, school, and community settings. Topics explored will include but not limited to theoretical perspectives related to families, families within the political context and family strengths, stress and coping. Instruction type: Lecture/Lab (15 hours). **Prerequisite:** HD 353.

HD 425 3-0-3 Principles and Practices of Teaching: A study of teaching techniques and practices related to early learners; emphasis is on selection, development, planning, implementation, and evaluation of instructional strategies for various types of learning. Lecture/Lab (20 hours). **Prerequisite:** HD 320.

HD 428 3-0-3 Positive Youth Development: This course provides students with an understanding of the theoretical, empirical, and experiential basis of positive youth development. Students will be introduced to the developmental changes, psychosocial changes, history of youth development and the context from which current practices emerge, including core competencies necessary for promoting positive developmental outcome for youth living in diverse communities. Lecture/Lab (20 hours). Pre-requisites: PH 132: General Psychology, HD 201: Human Development & HD 353: Child Development,

HD 430 3-0-3 Family Dynamics: This course will explore family theories, systems dynamics, cultural and contextual factors that influence family functioning over the lifespan. The course will examine both the healthy and dysfunctional family processes and study evidence-based practices that promote well-being within families. Lecture/Lab (20 hours). PH 132: General Psychology, HD 201: Human Development & HD 353: Child Development

HD 432 3-0-3 Adult Development: This course will examine different processes of development in early, middle and late adulthood using the life span approach. The biopsychosocial framework will be used to understand human behavior through research, developmental phases, and related research. Lecture/Lab (20 hours). Prerequisites: PH 132: General Psychology and HD 201: Human Development.

HD 434 3-0-3 Introduction to Gerontology: This course provides a broad overview of the multidisciplinary field of gerontology with an emphasis on key sociological, biological and psychological aspects of age, aging, and the aged. A special focus is placed on the great diversity that exists within the older population, Students are encouraged to explore; their own attitudes and beliefs about aging; what it means to age successfully; and career opportunities within gerontology, Lecture/Lab (20 hours). Perquisites: PH 132: General Psychology and HD 201: Human Development

HD 450 6-0-6 Practicum: A supervised unpaid off-campus full-day work experience in Human Service related sites. Provides students with opportunities to apply knowledge and skills acquired through course work in the field while being supervised by professional. Practicum sites are typically, senior living communities, senior health settings, child advocacy settings, child welfare agencies, disability services, youth serving agencies, mental health settings or health care centers. a child or family related business. Experiences are planned with consideration of the student's interest. **Prerequisite:** Completion of at least 90 credit hours of course work. **Departmental approval. Practicum = 400 clock hours completed within the semester.**

HD 485 6-0-6 Contemporary Issues Affecting the Quality of Life (Capstone): This course employs an integrative approach to provide an understanding of global, social, cultural, political, and economic factors that affect the quality of life of individuals and families. These factors will be examined through dynamic active learning methods. Students will create a project that is informed by, and based on, concepts from human development research that demonstrates a synthesis of learning accumulated in the major and its methodologies. Prerequisites: Only students in the junior year are eligible to enroll in this course in the spring semester.

History Courses

HI 111 3-0-3 World Civilization I: This course serves as an introduction to the history of humankind up to 1450. It explores the evolution of civilization in Africa, the Near East, Asia, Europe and North America. The course also provides a basic outline of the major, social, political, economic, political and cultural and intellectual developments in world history.

HI 112 3-0-3 World Civilization II: An exploration of world history from the European Age of Exploration up to the present. Students are exposed to the social, political, economic, religious and cultural forces shaping the modern world. Europe's rise and decline is discussed in relationship to Asia, Africa, Latin American and North America. Topics in the course include exploration, scientific and commercial revolutions, imperialism, colonization, hemispheric domination, global war, decolonization and anti-colonization, multi-polarism and the resurgence of the developing world.

HI 191 3-0-3 Honors World Civilization I: Designed for honors students, this course provides an introduction to the evolution of humankind up to 1450. Students are exposed to the major civilizations in Africa, Asia and the Near East as well as the civilizations of classical antiquity (Greece and Rome) and pre-modern and early modern Europe. Students are encouraged to think about the complexity and diversity of human civilizations and the social, political, economic, cultural and religious interplay between earlier and later civilizations.

HI 192 3-0-3 Honors World Civilization II: Designed for honor students, this course explores world history from the European Age of Exploration in the 15th century to the present. The course explores the complex interplay between various religious, ethnic and racial groups and their reactive and proactive to the rise of Europe. Europe's rise is placed in tension with Asian, African, Latin American and Native American realities. Topics include the rise of the Atlantic World, trans-Atlantic slavery, empire formation, the commercial, scientific and intellectual revolutions in Europe, the rise of revolutionary ideology, and industrialization, imperialism and colonization. The course explores the First and Second World wars and anti-colonial and anti-imperialist movements, the Cold War and the creation of a multipolar world by the end of the twentieth and beginning of the 21st century. The reconfiguration of geopolitical realities in Latin America, Asia and Africa in the contemporary period is explored as well.

HI 225 3-0-3 United States History I: This course serves as an introduction to the history of the United States from the Age of Discovery to the end of the American Civil War. This will encompass the flow of events and conditions that shape American society, politics, and culture, including the colonization and colonial society, the institution of slavery, the American Revolution, the development of the American nation and the emergence of the market society, expansion, and the division of the nation leading to civil war.

HI 226 3-0-3 United States History II: This course serves as an introduction to the history of the United States from Reconstruction to the present. This will encompass the flow of events and conditions that shape American society, politics, and culture, including Reconstruction and the emergence of Segregation, western expansion, industrialization and modernization, political reform, the Great Depression, World Wars and the emergence of America as a superpower, and the era of Civil Rights and technological explosion in the modern era.

HI 304 3-0-3 Colonial American History: This course traces the development of the colonial societies in North America and the economic, political, and social forces which formed the character of the future American nation leading up to the era of the American Revolution. This course explores the motivations for colonization and the institutions formed in the colonial era, the nature of colonial life and challenges of the American wilderness, the interactions with native Americans and the role of free and enslaved Africans, imperial competition and colonial warfare, and the rising ideals and resistance leading up to the American Revolution. **Pre-requisite:** HI 225 or consent of instructor.

HI 305 3-0-3 Age of Jefferson and Jackson: This course examines the development of American society from the ratification of the United States Constitution through the Mexican War. This course explores the many changes that occur in the era, including the emergence of the modern American democracy and political parties, large scale land acquisition, British invasion and the War of 1812, westward expansion and Manifest Destiny, emerging American industrialization, the beginnings of sectional conflict and the entrenchment of American slavery, the rise Andrew Jackson and Indian removal, and the Mexican-American War of 1848. Civil War. **Pre-requisite:** HI 225 or consent of instructor.

HI 326 3-0-3 The Old South: This course examines the development and persistence of the unique social hierarchy, racial regime, political struggle and intellectual isolation in the antebellum South. This course explores the trajectory of southern development and the development of slavery in the South, and why Southerners stubbornly held on to this institution long after it had been abandoned by the north, even when it restricted their economic growth. This course focuses on how slavery interacted with other factors to make a distinct society in the South, and why the South would choose to leave the union to preserve their system. **Pre-requisite:** HI 225 or consent of instructor.

HI 328 3-0-3 Mississippi History: This course traces the history of Mississippi from its discovery and early settlement period through the modern period. This course explores the social, economic, and political factors that formed Mississippi, including Mississippi's colonial founding and early settlement, the native Americans and their removal, the rise of plantation agriculture and the entrenchment of slavery, the Reconstruction era and rise of the Jim Crow racial regime, the effects of the Great Migration and the Great Depression, changes wrought by World War, the Civil Rights era, and the emerging new southern conservatism. **Pre-requisite:** HI 226 or consent of instructor.

HI 329 3-0-3 The New South: This course traces the history of the Southern States or "New South" from the conclusion of the Civil War through the modern period. This course explores the trajectory of southern development in the wake of the defeat in the Civil War, including Reconstruction, the emerging free black population, continued racial tensions, transformation of agriculture, industrialization and economic growth, urbanization, new political movements, southern poverty, Black Migration, the impact of war and technology, the Civil Rights Movement, and the emerging new southern conservatism. **Pre-requisite:** HI 226 or consent of instructor.

HI 347 3-0-3 Civil War and Reconstruction: This course explores the Civil War (1861-1865) and the Reconstruction Period (1865-1876). Conceptualized as an intensive readings course, students will explore the contestation over slavery in the 1850's, Southern secession, the social, political, economic and cultural implications of the Civil War, including discussions of the Confederate States of America, Presidential and Congressional Reconstruction, African American emancipation and citizenship, and the factors underlying the collapse of Reconstruction in 1876. **Pre-requisite:** HI 226 or permission of instructor.

HI 348 3-0-3 U. S. History 1877 - 1917: This course examines the conditions that shape the development of the United States from 1877 to 1917. America rose from essentially a developing nation in 1877 to an emerging economic and global power by 1917, and topics include the continued racial tensions and the emergence of Segregation, expansion, industrialization and economic growth, Native Americans, new technology, business and labor, new political movements (Populism and Progressivism), immigration, and emergence of the American empire, and the conditions that drive the United States into participation in World War I. **Pre-requisite:** HI 226 or consent of instructor.

HI 371 3-0-3 African American History Before 1865: This course explores the evolution of the African American experience beginning with the African past up to 1865. Topics in the course include an Introduction to African American historiography, the African Past and Kingdom Formation in West Africa, The Atlantic Slave Trade, African Americans in the Colonial Period, Black participation in the American Revolution, the Domestic Slave trade and the Rise of the Cotton Kingdom, the formation of free African American communities in the North, the Antislavery War in the 1850's and African American participation in the Civil War.

HI 372 3-0-3 African American History Since 1865: This course explores the evolution of the African American experience from 1865 up to the 21st century. Topics in the course include an Introduction to African American historiography, African Americans and Reconstruction, Black Organizational and Communal life in the late 19th century, the Great Migration, The Harlem Renaissance, the Great Depression and WWII, The Civil Rights Movement, Black Power, African American political empowerment in the 1970's, Ronald Reagan and Black Conservatism in the 1980's, Clinton and Democratic Centrism in the 1990's, The Resurgence of Conservatism in the Bush Era and the Obama Presidency in the 21st century.

HI 422 3-0-3 Historiography: This course is viewed as a capstone course for History Majors in their Junior and Senior years. Students are exposed to the development of history as a field of intellectual inquiry through an examination of approaches to the writing and study of history from classical antiquity to our current postmodern moment. Substantial attention is given to interpretative and methodological problems and approaches in the practice and writing of history. **Pre-requisite:** HI 225 and 226 or permission of instructor.

HI 430 3-0-3 Recent American History: This course examines central themes in the development of American history in the twentieth century beginning with the Great Depression and the New Deal in the 1930's. Other topics include World War II and the Emergence of a Bipolar World, The Cold War, Civil Rights and the Great Society, Vietnam and the Postcolonial World, Richard Nixon and the Imperial Presidency, Reagan and the Conservative Revolution, Clinton and the Roaring Nineties, Bush and the War on Terror and the Obama Presidency. **Pre-requisite:** HI 226 or permission of instructor.

HI 432 3-0-3 History of Europe I: This course examines the conditions and factors that shape the development of Europe from its origins to the age of Renaissance and Exploration. This course explores the social, economic, and political factors that drove European history, including early European culture, life under the Roman empire and its decline, the rise of Christianity and the formation of the Church, Germanic migrations and the emerging European kingdoms, the feudal system, Barbarian invasions, the emergence of the Middle Ages and crusades, and black death leading to the regeneration of the Renaissance era. **Pre-requisite:** HI 111 or consent of Instructor.

HI 433 3-0-3 History of Europe II: This course examines the conditions and factors that shape the development of Europe from the age of Renaissance and Exploration to the present. This course explores the social, economic, and political factors that drove European history, including the age of Renaissance and exploration, the Reformation and religious wars, the Scientific Revolution and Enlightenment, the rise of Russia, the French Revolution and the Napoleonic wars, the Industrial revolution, Unification and emerging nation states, rising imperialism, depression and world wars, the rebuilding of Europe, the fall of Communism, and emergence of the European Union. **Pre-requisite:** HI 112 or consent of instructor.

HI 447 3-0-3 History of Africa I: This course traces the African history from the evolution of mankind up 1830. Due to the large expanse of time under investigation in the course, it utilizes a thematic rather than chronological approach to the subject matter. Topics include an introduction to human evolution, Africa in the Iron Age and social organization, State formation in North, Northeast, Central and West Africa, the impact of Islam and Christianity on African societies, Early European interaction with Africa, the Atlantic Slave Trade and European settlement in Southern Africa. The course concludes by looking at the dynamic nature of African societies before the Era of Free Trade. **Pre-requisite:** HI 371 or Permission of instructor.

HI 448 3-0-3 History of Africa II: This course examines the History of Africa from the beginning of the Era of Free Trade in 1830 up to the present. Topics include the Advent of Colonialism and the Era of Free Trade, the Scramble and Partition of Africa, the African Response to Colonialism on African Societies, Africans and the African Diaspora, The Colonial System, the Rise of African nationalism and the Decolonization process. The course concludes with an analysis of post-independence political and economic developments and the contemporary challenges and successes of African nations. **Pre-requisite:** HI 372 or permission of instructor.

HI 506 3-0-3 African-American History: This graduate course taught in a seminar format is designed for advanced undergraduates and graduate students who wish to explore various special topics related to the African American past. Students are exposed to the historiography, methodological and interpretative issues confronted by scholars in the selected topical area. Students are expected to engage the literature through intensive reading and discussion of the material and to produce an extensive historiographical paper. **Pre-requisites:** HI 371 and 372, and HI 422 or permission of instructor.

HI 460 3-0-3 Twentieth Century World History: This course examines the conditions and factors that shape world development and history from the turn-of-the twentieth century to the present. Topics include the age of imperialism and colonization, the arms race and World War I, the Versailles settlement and the depression era, the rise of totalitarianism and Communism, World War II and the reconfiguration of power and political structure, the Cold War and nuclear age, the end of colonialism and the age of independence, the superpowers and balance of power, the fall of Communism and the rise of China, Globalization and advent of terrorism in the modern age. **Pre-requisite:** HI 111 or consent of Instructor.

Honors Courses

HO 291-292 3-0-3 Sophomore Honors Colloquium: These courses emphasize the careful study of great works of literature, through in-depth examination of function and content. A significant part of each course involves developing effective oral and written communicative skills through in-class interaction.

HO 391-392 3-0-3 Junior Honors Seminar: These courses are designed to serve as initial courses on the development of research techniques for honor students. A topic of significant importance is chosen each semester as the theme of the seminar. The seminar culminates with a written report by the students. Students are required to undertake individual or group research or study of a particular aspect of the theme.

HO 491-492 3-0-3 Honors Independent Study: These courses are designed to provide significant independent study and research opportunities for honor students in any area of interest to the student. Emphasis is placed on research design and research report writing. Arrangements to do the independent study with a particular faculty member will be made through the Director of the Honors Curriculum Program.

Health Physics Courses

HP 111 3-0-3 Introduction to Health Physics: This course is to the discipline of health physics. Topics include the necessity, importance, acceptance and evolution of health physics discipline. Its functions and contribution in different environments that radiations are used. Professional societies in health physics and accreditation and certification. National and international Regulatory agencies and other health physics related issues.

HP 121 3-0-3 Computation in Health Physics I: This course enhances student's capability in using popular computational software or problem solving skills in the field of health physics.. Instructor consent is required.

HP 211 3-0-2 Computation in Health Physics II: This course builds up on HP 121 and enhances the computational competency in problems related to health physics.

HP 213 3-0-3 Health Physics Regulations: Reviewing of national and international regulations including related parts in 10 CFR and portions of 49 CFR that deals with safe shipping and receiving of Radioactive Materials and informing participants about NCRP, ICRP, NUREG, REG Guides, etc. **Pre-requisites:** HP 111 or consent of instructor.

HP 301 3-0-3 Radiation Physics I: This is an upper level introduction to health physics class that focuses on fundamentals of health physics, radiation decay modes, equilibria, fission, fusion, neutron cross-section and other basics of HP.

HP 311 3-0-3 Radiation Physics II: Continuation of HP 301 with topics focusing in the areas of radiobiology, external dosimetry, internal dosimetry, instrumentation, and radiation monitoring.

HP 312 3-0-3 External Dosimetry: Topics include defining external dosimetry, techniques and equipment necessary to detect and quantify them are discussed. Some of the external radiation protection methods like point kernel tech-niques, Monte Carlo modeling, and NCRP-147 methods will be instructed. **Pre-requisites:** HP 111 or consent of advisor.

HP 321 3-0-3 Nuclear Measurement: A lecture and laboratory based course that covers the principles and practice of various instruments that are used in the field of health physics. The types of instruments (GM counters, Proportional counters), different supporting electronics like amplifiers, pre-amplifiers, power supplies, counters/timers will be discussed. **Pre-requisites:** HP 111 or consent of advisor.

HP 324 3-0-3 Radiation Instrumentation: A lecture and laboratory based course that covers the principles and practice of various instruments that are used in the field of health physics. The types of instruments (NaI, HP Ge, LSC), range of applicability and suitability for different situations are studied and their calibration, usage and maintenance are practiced in the laboratory. **Pre-requisites:** HP 311 and HP 321 or consent of instructor. **Pre-requisites:** HP 111 or consent of advisor.

HP 325 3-0-3 Radiobiology: Lecture based class covering aspects of molecular radiobiology, harmful effects of radiation, and acute radiation illnesses. The other topics discussed include non- stochastic and stochastic radiation effects on humans and radiation exposure related epidemiological studies. **Pre-requisites:** HP 111 or consent of advisor.

HP 362 3-0-3 Internal Dosimetry: In this course internal exposure and the techniques and instruments to identify and measure them are studied. The emphasis will be on internal radiation protection. The lecture emphasizes on understanding ICRP-26, ICRP-30, ICRP-60, ICRP-66, and MIRD methods. Additionally, using internal dosimetry related software like IMBA, LUDEP is discussed. **Pre-requisites:** HP 111 or consent of advisor.

HP 412 3-0-3 Topics in Health Physics I: A lecture/seminar based course covering various topics in Health Physics such as emerging methodologies in detecting radiation, waste disposal, emergency management, or any HP related topic.

HP 422 3-0-3 Topics in Health Physics II: Continuation of HP 412.

HP 421 3-0-3 Principles of Radiation Safety: A review of basic principles included in the areas of radiation protection, simple methods of estimating doses, and principles of radiation safety will be discussed. In addition practical demonstration of performing routine radiation surveys, calibrations of survey instruments will be discussed. **Pre-requisites:** HP 111 or consent of advisor.

HP 429 3-0-3 Contemporary Issues in Health Physics: A lecture/seminar course covering special topics in Health Physics dealing with a variety of contemporary health physics issues. The seminar presenters will be selected industry, local, state, and federal regulatory & research laboratory who are active in radiation safety. **Pre-requisite:** Senior standing in HP program.

HP 494 3-0-3 Technical Elective in Health Physics I (Environmental Health Physics): The purpose of this class is to enhance the technical knowledge in the field of Environmental Health Physics. Information discussed includes but not limited to fate and transport of radionuclides in the environment, naturally occurring radioactive materials (NORM) and Technologically enhanced radioactive materials (TENORM).

HP 495 3-0-3 Technical Elective in Health Physics II (Radiological Emergency Management): The purpose of this class is to enhance the technical knowledge in the area of emergency preparedness, specifically in the radiological emergency perspective. Students will be required to take and pass certification exam offered by the FEMA.

HP 496 3-0-3 Senior Project Thesis: The purpose of the senior project is to have one to experience in development of a professional report, poster and oral presentation drawing materials from any aspects of the undergraduate Health Physics education into a presentable literature survey at professional level. It could also be a research topic in HP. **Pre-requisite:** Graduating senior standing.

Human Sciences Courses

HS 203 3-0-3 Survey of Human Sciences: A study of Human Sciences as a profession addresses being a leader in the practice to find solutions for children, family, and community entities. The Human Sciences profession, includes philosophy, leaders, legislation, historical and ethical considerations; a treatment of Human Sciences disciplines, including career opportunities, preparation requirements, and interrelationships of the biological, physical and social sciences. (Required of all Human Science Majors)

HS 224 3-0-3 Family Health: A study of the concepts and importance of health with emphasis on the principles of health maintenance and care of family members; nursing principles and techniques in home care of the sick and injured are discussed; and practice in making improvised and emergency devices for care of the sick are included.

HS 315 3-0-3 Parent/Preschool Relations: A study of parent/child relations with emphasis on principles, procedures, and methods of working with parents in individual or group settings. Instruction type: Lecture/Lab (15 hours).

HS 327 3-0-3 Marriage and Family Relations: A study of interpersonal relations of the individual and his or her family through various stages of the life cycle; an accounting of processes in the development, change, and termination of human relationships, application of concepts and data to issues, and problems in primary relationships.

HS 376 3-0-3 Materials and Methods: Principles and techniques basic to teaching Human Sciences in secondary schools, curricula organizations, selection and evaluation of instructional materials; department organization, program planning, methods of teaching and effective use of teaching materials.

HS 427 3-0-3 Management of Family Resources: This course develops efficiency and skill in the use of time, energy, and money in the household buying and management, as well as methods of evaluating goods and services.

HS 475 3-0-3 Consumer Education: An introduction to the principles and factors affecting the quality, cost and durability of selected consumer goods, including resource management and protection aspects of income, as well as concepts of systems of economics. (Open to all students) (Required by all Human Sciences Majors)

HS 482 1-0-1 Issues and Trends in Human Sciences: Historic and current issues in human sciences, and relevance to the basis for Family and Consumer Sciences. Issues affecting individuals and families.

HS 493 3-0-3 Seminar: This course requires seniors to conduct an extensive literature review in an area of research in their major and prepare a comprehensive written review. In doing so students will learn about the various aspects of research methodology and also create a research proposal. Students are required to take this course only in the senior year of the program.

HS 494 3-0-3 Thesis: This is a capstone course and a continuation of HS 493. Students will be required to prepare an in-depth written composition in an area of research related to their major. Students will utilize existing state-of-the-art technologies to present their thesis to an audience of faculty and their peers. **Pre-requisite:** Departmental Approval/Graduating Seniors only.

Humanities Courses

HU 201 3-0-3 Humanities: The arts reveal values and patterns of people who have made significant contributions to our histories. An examination of those values and whether they are meaningful to us in today's world is the subject of this course. **Pre-requisite:** EN 112.

HU 202 3-0-3 Humanities: Black Cultural Heritage: A study of the achievement and contribution of African Americans in the United States in art, literature, and music. **Pre-requisite:** EN 112.

International Agriculture Courses

IA 302 3-03 Economics of Agricultural Development and Trade: This course will examine the processes of economic growth and agricultural development overtime and in various parts of the world. Special emphasis will be placed on theories of economic and agricultural development; poverty; globalization; and the institutional factors likely to influence the agricultural sector in developed and developing countries. Development economics focuses on the poorest two-thirds of the world's population. These are the vast majority of people in developing countries; many of them are inadequately fed and housed, in poor health and are illiterate. The course will help to provide a better understanding of a number of the critical questions relating to the economics of the developed and developing world as well as the prospects for global integration.

IA 482 3-03 Economics of World Food Production and Distribution: This course focuses on developing a basic understanding of and appreciation for differences in trade policies, agricultural systems, resource endowments, populations and production possibilities in Developed and Lesser Developed nations; build understanding of theory and policy options that are likely to help resolve food availability problems; complete an intensive study of the overall economic/agricultural sector in a selected country or region of the world and identify policies which might help resolve problems of economic growth and nutrition.

IA 510 1-4-3 Research Development: Students in this course will continue the self-assessment and career awareness process. In addition, students will also focus on career preparation and will get ready to transition to a formal, supervised work experience, as well as, refine their plan for employment, education, and training.

Computer Networking and Information Technology Courses

IT 100L0-2-1 Basic Computer Systems Lab: This course is specifically designed for students with little or no practical background related to computers. Through complete hands-on sessions, students will learn the importance of every component inside the computer such as the motherboard, expansion cards, and the microprocessor among others.

Students will assemble a computer from its individual components. Also, students will install and configure various software programs such as the operating system (Windows 98/2000) and applications such as Microsoft Office and Corel WordPerfect.

IT 101 3-0-3 IT Essentials: The course introduces students to computer components, portable devices, wireless connectivity, security and safety, environmental concerns, and diagnostic tools. You learn the fundamentals of computer technology, networking, and security. The course also provides a more hands-on orientation and scenarios in which troubleshooting and tools are applied to resolve problems.

IT 107L 0-2-1 Computer Application Lab: After successful completion of this class, students will be qualified to take the MOS specialist certification exam in Word at Word Expert level. Students will gain skills in formatting and organizing content, formatting documents, collaborating and customizing MS Word.

IT 115 2-1-2 Introduction to GIS Application: This GIS course is a positive definite requirement in all our GIS-related and concentration areas. It introduces students to different GIS software suites. The course is design for early introduction of GIS software technologies to the student.

This will allow the professional software used in the industry. The course is very dynamic and seeks support and work relations and collaborations with different software developing companies like ESRI, database software. The desired dynamism includes building better understanding of standards of spatial data required by the Federal Geographic Data Committee (FGDC).

IT 117L 0-2-1 Computer Application Lab (Spreadsheets): After successful completion of this class, students will be qualified to take MOS Specialist certification exam in Excel at Excel Expert level. Students will gain skills in organizing and analyzing data, formatting data and content, collaborating, managing data and workbooks, and customizing excel.

IT 119 0-1-1 Remote Sensing Process and Application: This course is used to track students who are new to the program. It gives the students the knowledge of how software promotes applied science; hence, the students are expected to develop understanding and interest in geospatial laboratory techniques. This initial exposure to ERDAS mapping standards gives the students an early start with ERDAS software suites. Correspondingly, the students begin to see the challenges and advantages with which they can prepare to perfect on using the software to establishing strong skills in GIS and remote sensing analysis.

IT 127L 0-2-1 Computer Application Lab (Lab-Power Point): After successful completion of this class, students will be qualified to take MOS specialist certification exam in PowerPoint at the PowerPoint Expert level. Students will gain skills in creating content, formatting content, collaborating and managing and delivering presentations.

IT 137L 0-2-1 Computer Application Database Lab: After successful completion of this class, students will be qualified to take MOS specialist certification exam in Access. Students will gain skills in creating content, formatting content, manipulating, collaborating and managing data in a database.

IT 162 3-0-3 Computer Networking Fundamentals Lab: A laboratory course covering exercises that will teach students to setup a small computer network.

IT 181 2-1-3 Computer Cartography: This course introduces students to the underlying theories and process of map making with emphasis on data collection, processing, and database management, and graphic measurement and representation of data as schematics information. The process is necessary for students to build better knowledge of satellite technology in map making and other global schematics of the Earth. It also offers better uses of maps and global positioning systems (GPS) in business, education, navigation, and military. The focus is on mathematical models of the Earth's shape, communication, and projections (flatness of the Earth's surface), through near-Earth satellites for Earth-bound measurements, and the roles of Earth's gravitational field in mapping. The design concept of this course is geodata analysis and management (GDAM) for the production of maps. The analysis includes systems of datum, coordinates and their transformation, map projections, and GPS network design.

IT 261 3-0-3 Routing and Switching Basics: This course discusses the importance of routing and switching in the networking field. Students will configure routers and switches for small to medium sized networks. Routed protocols such as TCP/IP and IPX/SPX are also discussed. Routing Protocols such as RIP and IGRP; Switching concepts such as STP, VLAN, VTP are also covered. Finally, students will learn to configure firewalls on the routers through ACL's. **Pre-requisite:** IT 162.

IT 262 3-0-3 Introduction to WAN: Concepts and implementation of WAN technologies such as Analog Dialup, ISDN, X.25, and Frame Relay are covered in this course. Students are introduced to the concept of network administration through formal lectures and discussions. **Pre-requisite:** IT 261.

IT 263 3-0-3 Industrial Standards in Computer Networking: This course focuses on industry standards and certification. A preparatory class for Industry Certification.

IT 271 3-0-3 Programming Essentials: This course teaches programming in Microsoft C Sharp. Topics include programming constructs and methodology, algorithm development, event driven programming and creating visual interface for applications.

IT 291 3-0-3 Case Studies in Homeland Security: The strength of this course allows students to evaluate actual threats and problems to Homeland Security, such as natural disaster (climatic and non-climatic interventions), wildfire, failed and executed terror threats and plots. The objective is to put the students in the positions of the emergency or security responders, and sees how the students would contribute improvement to the system. The central design concept is that Homeland security is always challenged by many dimensions of demands (LUCDs/ODDs). These demands include all terror plots, which are promoted through the transportation systems, and executed as demands at the origins or destinations. Relative to these demands, this course is focused on avoidance of political and economic implosion during homeland security emergencies; so, political and economic resilience are emphasized.

IT 362 3-0-3 Advanced Routing: Beginning with the routing principles and extending IP addresses, this course focuses on the features; and implementation guidelines for advanced routing protocols such as OSPF, EIGRP, IS-IS and BGP. Use of multiple routing protocols in the single network is also discussed. After completing the course, students should be able to implement medium and large sized networks. **Pre-requisite:** IT 262.

IT 363 2-2-3 LAN I Design: This course focuses on the Mainframe platform and will introduce the student to both the OS and networks using the network operating system ZOS. The student will be introduced to the most important topics of ZOS and related networking concepts. **Pre-requisite:** IT 162.

IT 364 3-0-3 Introduction to Unix: This course uses a complete hands-on approach to teach the UNIX operating system. Students begin by learning commands of UNIX followed by shell scripting and C programming. System administration in UNIX is a part of this course. Students install the Linux operating system on individual computers either as a single OS or in dual-boot mode. **Pre-requisite:** IT 162.

IT 365 2-2-3 Server Configuration and Administration: This course teaches the installation, configuration, and administration of Windows Server in a network environment. Students receive a grade for this course in addition to passing the certification exam. Specific exams will be indicated before or during the course. Technologies include Microsoft's Windows 2000 Server Operating System. **Pre-requisite:** IT 262.

IT 372 3-0-3 Technology in Natural Disaster Planning and Emergency Management: The objective of this course is to achieve "best-use" or "best-fit" and synchronization of available equipment and manpower during an emergency response. The course introduces students to appropriate equipment, technology, including manpower needed during different emergencies. It also creates better knowledge of the echelon of authorities and the equipment associated with each team. The course allows students to understand different techniques that are used to avoid activity redundancy or "frequency jamming" as experienced during the 911 terrorist action. Therefore, this course involves professional definitions of activity sites, and assigned resources or responsibilities to different agencies in discharging their respective duties.

IT 373 2-2-3 Web Design: This course covers designing and creating content for the web. Topics include tables, forms and cascading style sheets (CSS) using HTML tags. The course also introduces graphics/animation techniques for websites using Macromedia tools.

IT 374 2-2-3 Internet Programming: This course covers programming techniques used to create web-based applications. It uses Microsoft's Active Server Pages (ASP) technology. In this course you will use various technologies learned in IT 373 to create dynamic web content. Topics include server-side scripting and client-side scripting languages. The course also covers how to install and configure windows, Internet Information Server (IIS) and how to configure and set up a website. **Pre-requisite:** IT 373.

IT 375 2-1-3 Database Management Systems: This course is based on ESRI's software suite and support. The focus is to create different database management objectives through clear definitions of the elements of a geographic location (tradition, culture and opportunity), and generate baseline datasets or databanks from these elements. The databanks are configured with classes of vector, raster, and annotations structured to run on different computer/GIS platforms. This will provide the student the ability and structure of data relationships, data integrity, to create diverse intelligence from data features and their attributes. The GIS software platforms are not limited to ESRI but involve other aspects of digital data normalization, modeling, queries, forms reports, calculations and digital manipulations, with extensive and detailed analysis.

IT 376 2-2-3 Database Server Administration: This class focuses on physical design issues such as data storage, table operations, storage methods, sequential storage, pointers, indexes, clustering and portioning. Administration issues relating to task, tools, performance monitoring, backup and recovery, distribution and integration of data, e-commerce databases, distributed databases, and the web. **Pre-requisite:** IT 375.

IT 377 3-0-3 Into to Mobile GIS Applications (Programming): This course focuses on GIS mobile devices platform application development. The general areas covered include ArcGIS Mobile, ArcPad, and GIS Apps for Smartphones. In addition, considerations are given to some developmental tools that provide APIs, software, and other resources that can be used to create innovative GIS solutions for desktop and mobile devices. These tools will include, ArcGIS Web Mapping (Flex, JavaScript, and Silverlight), Mobile API (ArcGIS for iOS), Tools for Java, Tools for .NET, Esri Developer Network (EDN), and ArcGIS Engine. These tools are meant to expand GIS applications horizon of students in Homeland Security and Natural Resources Management. The objective of this course is to introduce students to use GIS markets to their advantage.

IT 378 2-2-3 Application Development: This course teaches application development in the windows environment using Microsoft Visual Basic 6.0. In this course students use various techniques learned in IT 375 to develop applications in database, file handling, objects and graphics/animation. Technologies include Microsoft Visual Basic 6.0, Microsoft Access Database, Third Party Controls - ActiveX, COM components. **Pre-requisite:** IT 375.

IT 381 2-1-3 GIS Techniques, Utilities and Productions: This course expands the utility of GIS in two major areas, computer information science and Physical Science--Earth Sciences. It creates the knowledge and understanding of the term "GEO" used in most geoscience courses and uses this knowledge to give the GIS three fundamental introductions: the philosophical introduction of GIS, the scientific introduction, and the traditional introduction. The purpose and functions of GIS also introduce the three audiences driving the GIS market. Within these introductions, the domains of GIS: geography, data, human, and technology are emphasized to build coherence between Earth science and computer information trends and applications, and to synchronize the GIS techniques and related sciences, such as remote sensing. Spatial analysis is the basic challenge in this course.

IT 384 2-1-3 Advanced GIS (Spatial Analysis): This is an information engineering course with emphasis on data classification (data unit and data frames) built from phenomena of experimental biology in agriculture. It provides students with basic knowledge of measurements of life, and analytical concepts of the biophysical environments (ecosystems). The GIS is focused on the type of measurement (discrete measurements) and records (analytical statistics); of course, with no predictive results. The course is designed for biophysical analysis with respect to ecosystems response to disturbance. This will promote the understanding of the different concepts involved in using a GIS technique to provide solutions to biological problems in different ecosystems. **Pre-requisite:** IT 381.

IT 385 3-0-3 Energy and Transportation Network: The fundamentals of energy and transportation networks and their relations are covered in this course. The course is taught with emphasis on the broad definitions of transportation, the security they give to society, and the roles they play in the changes that occur in the physical environment.

The emphasis shows in four areas: 1) Geo-technology¹--transportations systems, acquisition and installation of transportation facilities and infrastructures, safe operation of the transportation systems, and regional impacts of transportation; geotechnology² or communication systems is treated separately. 2) Geo-political includes but not limited to environmental, state and regional transportation planning--human and vehicular traffic considerations with respect to regulations for demand/supply, and clean energy (clean air, water, carbon footprinting, and climate change)., 3) Transportation Safety Administration (TSA) with basic focus on terrorism in relations to homeland security. 4) Geo-economic aspects include pure transportation logistics that determine the transportation shares of the economy; the concerns and positions of the Loss and Recovery Industry--insurance companies in dealing with the legal consequences and liabilities in transportation networks.

IT 386 2-1-3 Introduction to Remote Sensing Techniques (Noise and Sensors Eval.): This course opens up for students to understand electromagnetic radiation (EMR), electromagnetic spectrum (EMS), electromagnetic force (EMF), and the right photo units associated with these electromagnetic activities. The focus is on radiation principles, terrestrial noise windows, solid and noise angles and how these elements affect remote sensing technologies, such as sensors and data acquisition systems.

IT 389 2-1-3 Aerial Photo Interpretation: Aerial photograph is a subject matter with technical relations to different remote sensing techniques. These techniques are used in creating and managing the cultures of agriculture, land use and physiographic features (physical geography), including photo geometry and crop characterizations. The course is focused on the development of terrestrial intelligence from aerial images, and it provides professional services and support systems to agricultural, urban, and military target developments through different engineering applications.

IT 390 3-0-3 Emergency Preparedness and Management Response: This course deals with the organization, operations, and required leadership of emergency team management, and the roles they play to effectively contain evolving and dynamic crisis situations. It also includes management decision-making protocols, such as concurrent information engineering of human safety, economic stability, and resilience during crisis period(s), like terror attacks and destructive weather interventions. The exclusive focus of this course is to distinguish between preparedness and readiness, and show how each applies to man-made and natural disasters. The LUCDs are used to highlight different levels of emergency response.

IT 391 3-0-3 Forest Survey and Health Restoration: This course allows students to evaluate actual resources in the forest by following the three steps—survey of the forest, evaluation of the forest health, and possible restoration of the forest. This process is based on the evolution of resources and current activities going on in the area; this includes the physical condition such as logging, looting, fragmentation of the forest, and other activities like the execution of mineral entry rights.

IT 392 3-0-3 Remote Sensing Applications to Resource Management: The fact that remote sensing is a distant measurement process, it enables the evaluation and monitoring of resources from remote locations. These locations are equipped with different platform that are capable of very sensitive measurement; for example, satellite sensors are enabled with different levels of phenomenal measurements—the quality of Earth’s waters, forest and air. The combination of remote sensing and some GIS techniques can be configured into resources management process, and that is the type of challenge this course focuses on.

IT 393 3-0-3 GIS - (Crime and Social Analysis): This is a synthesizing course involving crime identification systems, data collection and analysis, and plan preparation for related database development. Students are educated on how to review and relate crime patterns to some social trends, and how their impacts affect society. It also includes implementation of counter-measures using different GIS techniques.

IT 394 4-0-4 GIS in Economic Development (Feasibility Studies): This course applies different GIS techniques as tools to review, analyze and forecast land use development impacts due to development trends. This includes the interpretations of the values of land and their association too different planning units that are involved in urban planning, community, and economic development. The course evaluates the types of developmental convergence, conflicts, and other challenges that result from local and regional land use development practices and how they share the economy and socioeconomic activities.

IT 399 3-0-3 Transportation and Economic Logistic: This course fundamentally deals with goods, human and vehicular traffic across regional, state and international borders in trade transactions. The human traffic belongs to the immigration, but goods and vehicular traffic and the scales of economy or threats they bring along are covered in this course. Particular attention is paid to trade and industrial policies that support energy law, international transactions, and the components of economic dissent and creation of disaster in economic dependence among regions are also covered. The objective of the course is for the student to understand how trade collaborations are built among regions, such as pre-shipment inspections, and how to apply such collaborations as border control tools, at airport, seaport, and surface transportation checkpoints. The tools are also used to detect fraudulent and corrupt transactions, including physical threats, like transportation of explosives and other dangerous goods sanctioned by the United Nations and the United States' National Fires Protection Association.

IT 407 3-0-3 Remote Sensing at Microwaves (Terrain Analysis): This course is focused on using Specific characterizations of microwaves remote sensing as emphasis and techniques for qualitative or quantitative analysis of terrain burden. The burden may be of social, agricultural, climatic, or military applications. The approach is to drive students from micro terrain analysis unto research-base techniques like target acquisition, development and analysis.
Pre-requisite: IT 392.

IT 410 2-2-3 Backup, Recovery System Architecture: This course introduces students to concepts in Backup and recovery. Topics covered include backup and recovery terminology, recovery operations, types of storage systems, concepts and components, major sources of backup data, backup storage media, their advantages and disadvantages, planning for backup and recovery.

IT 412 2-2-3 Cloud Infrastructure Services: The Cloud Infrastructure and Services (CIS) course educates participants about cloud deployment and service models, cloud infrastructure, and the key considerations in migrating cloud computing. For all definitions of cloud computing, the course has resorted to the U.S. national Institute of Standards and Technology as a guide. The course covers technologies required to build classic (traditional), virtualized, and cloud data center environments. These technologies include compute, storage, networking, desktop, and application virtualization. Additional areas of focus include backup/recovery, business continuity, security and management. Students will learn about the key considerations and steps involved in transitioning from the current state of their data center to a cloud computing environment. Upon completing the course, participants will have the knowledge to make informed decisions about migrating to cloud infrastructure and choosing the best deployment model for their organization.

IT 414 2-2-3 Distributed Systems and Cloud Computing: This course provides students with the knowledge needed to understand the basics of cloud computing and how it may be implemented in a business environment. It incorporates a study in cloud infrastructure and services utilizing current cloud technologies. Topics include but are not limited to cloud models, service models, cloud infrastructure planning, cloud service level agreements, service adoption, and security models.

IT 420 3-0-3 Spatial Epidemiology (Security Systems): This is a geodata analysis that gives the student the skills and techniques required for integration of baseline data with demographic data, such as population and disease censuses, land use budgeting, resource mapping, and land ownerships. The analysis, primarily accounts for the social components of humans and the corresponding social and health challenges, such as hunger and spread of diseases. These processes influence the physical development of humans and sometimes, the processes influence socioeconomic activities. The objective is to use the impacts of the relationships to create sustainable environments.

IT 424 3-0-3 Geospatial Threats to Agricultural and Human: This course teaches students the techniques of geospatial investigation--identification and mapping of geochemical migration of contaminants that threaten agricultural and human productivity. These threats are obvious in our immediate environments and have created unfavorable networks in our food systems, resulting into different alleged diseases that affect humans and plants. The subject matter is research oriented, with clear objectives--to use the investigation to establish strong correlations between geochemical contaminants and human health.

IT 466 2-2-3 Network Security: Security is one of the most important components of a computer network. Students will be introduced to the process of designing and implementing a secure computer network.

IT 471 2-2-3 System Analysis and Design: This course covers wireless networking and related technologies. Topics include fundamental wireless communication concepts, standards, wireless local area networks (LANs), and cellular systems. Wireless specific protocol elements are addressed in typical application environments. Data communications in multiple wireless environments is emphasized. **Pre-requisite:** IT 262.

IT 473 2-2-3 Wireless Technologies I: This course covers wireless networking and related technologies. Topics include fundamental wireless communication concepts, standards, wireless local area networks (LANs), and cellular systems. Wireless specific protocol elements are addressed in typical application environments. Data communications in multiple wireless environments is emphasized. **Pre-requisite:** IT 262.

IT 474 2-2-3 Wireless Technologies II: This course (Wireless LAN Security) consists of the latest enterprise wireless LAN security and auditing equipment. This course addresses in detail the most up-to-date WLAN intrusion and DoS tools and techniques, functionality of the 802.11i amendment to the 82.11 standard, the inner-working of each EAP type used with wireless LANs today, and every class and type of WLAN security solution available on the market-from wireless intrusion prevention systems to wireless network management systems. Students who complete the course will acquire the necessary skills for implementing and managing wireless security in the enterprise by creating layer 2 and layer 3 hardware and software solutions with tools from the industry's leading manufacturers. **Pre-requisites:** IT 473.

IT 477 3-0-3 Remote Sensing of the Environment (Techniques): The techniques of remote sensing involved in this course are designed to give students an explicit understanding of the dimensions of the environment. This includes land, vegetative community, human dimensions, water, and air. The techniques are more applied to understanding the properties of terrestrial botanical materials (TBM) and human dimensions, and their responses to solar radiation. The response can be due to spatial, temporal, radiometric and spectral interactions, and the course focuses on how these properties are applied in remote sensing. The changes can be due to human disturbance (anthropogenic) or natural changes. But the focus is on how to create some techniques for building better knowledge of the conditions of our intimate environments, such as water contamination, vegetation stress, and rates of urban development, draught, and many more. The course involves some basic mathematical and probabilistic calculations associated with the network of changes we see every day.

IT 485 3-0-3 Geostatistics (Spatial Analysis): The ability to understand effectively use spatial statistics constitutes integral parts of training in Geographic Information Systems (GIS) and Remote Sensing specializations. Problems in spatial statistics fall into one of three major areas of analysis, depending on the type of spatial data available or the spatial process under study. The areas of analysis include point, pattern of spatially continuous data, and the analysis of regional data. This course will enable students to understand basic geostatistical concepts and applications, and become proficient in piloting related software used for spatial estimation.

IT 486 3-0-3 Infrastructure Risk Analysis: The course treats different dimensions of non-abstract and comprehensive identification, review and analysis of regional intelligence, and productivity. The regional elements are based on facility definitions and contributions to infrastructure availability, readiness, and uses. The infrastructure considered include housing--residential, commercial, and bridges, and how they development as support systems. Their vulnerability to economic and terror threats are also dealt with. It also discusses the presence of a working population, and the possibility of reverse logistics from these facilities in the marketplace. The course is about 50% vested in infrastructure targeting, availability, readiness, population, and reverse logistics modeling to alleviate demands during normal and emergency periods.

IT 487 3-0-3 Environmental Regulation and Impact Statement: The study is a legal assessment of the environment based on professionally established rules, methodologies, and practices of a plan process. It is policy-oriented toward the predictions and assessment of impacts on specific components of the physical environment. For example, water, air and noise environments.

IT 488 3-0-3 Explosives Detection: This course exposes students to the art and presentation of terror plots. The dynamics and different objectives that fuel this technologically driven process are vast and very sensitive, but students are focused on the human and technological dimensions of safety in securing a very small threat zone for society.

IT 492 3-0-3 Foundations of U.S. Force Planning: This course is a support system to the U. S. force planning and for the uniformed organizations within the National Security Decision Making Departments. The course is instrumental to students' position and basic understanding of global economy and the dynamics of politics, with respect to U. S. national interests. How these elements translate into foreign assistance programs, building of alliances, and the use of different policies to approach different problems in different parts of the world are used in this course to position students' academic consciousness--that the impact of a weak global democracy is a threat to U. S. National Security.

IT 493 2-0-2 ESRI and Digital Government (Job Seminars and Resume): This course uses seminars on ESRI's geospatial mapping techniques and standard applications to expand on employment opportunities for students. It is meant to improve local and regional governments through data sharing at different levels of confidentiality. Seminars on concurrent information engineering technology, with emphasis on digital and e-government are also recommended for job search in the following areas: emerging E-911 and demographic recording systems, emergency management agencies, digital medical recording, taxation, political elections, and disaster and recovery management.

IT 494 3-0-3 Thesis Defense: This course is a continuation of IT 495. Students are required to present and defend their research findings orally using Microsoft PowerPoint or a similar format. **Pre-requisite:** IT 495 Thesis Research.

IT 495 1-0-1 Thesis Research: This course is designed for graduating seniors to gain experience and show competencies in researching and preparing a technical report commensurate with graduate standing. It is for graduating students to demonstrate their capability producing professional level technical reports in their field(s) of study.

IT 497 3-0-3 Senior Project (GIS Approach to STEM Education): This is an educational alignment course for students to demonstrate good understanding of research applications in science, technology, engineering, and mathematics (STEM). The students are allowed to choose one of the four STEM approaches for their senior project research. The research can favor any purpose, objectives or goals adopted by any foundation, industry or organization, but the project is expected to add knowledge to STEM in presenting qualitative, quantitative or policy analysis.

IT 501 3-0-3 Land Use and Planning and Environmental Justice: Different dynamics of data collection provides more information than the information contained in ordinary base map. One of those dynamics is and use planning, which is always focused on environmental equality. Environmental equality is an appellation which does not accomplish anything than create more land and development disputes. This course shows the aesthetics, ethical and intellectual disciplines and how more resources and political aggrandizements are applied in land use and land dispute settlements. The focus is on land use regulatory processes that serve strict social agenda in environmental justice.

IT 502 3-0-3 Natural Resources and Interventions: This course leads students to the management policies, maintenance and benefits of composite topographic system (land cover or terrain) and how land use and land cover jointly define regional tradition, culture and economic opportunities. Due to the fact that natural resources define the economic life wires of a people, the synchronization of regional economy with regional resources, including climate, always demands some levels of preparedness, readiness, and resilience in order to maintain a stable economy.

IT 503 3-0-3 Environmental Quality--Urban Fringes: This is a geodata analysis that gives the student the skills and techniques required for integration of baseline data with demographic trends, such as population and housing, land use budgeting, resource mapping, and land ownerships.

The focus is the future of a region or geographic location, and the analysis primarily accounts for the economic components of urban shadow effects and the various spill-overs. The challenge is human health and social balance, such as hunger and spread of diseases. These processes influence the socioeconomic activities and the physical development of humans. The study creates different impact studies and the results are aimed at improving the urban/urban fringes relationships into sustainable environments.

IT 507 3-0-3 Survey of Geochemical Contamination: This course provides students with better understanding of spatial relationships involving the law of large numbers (outcome = theoretical average, on an independent random process, repeated many times); for example, white noise modeling. The basic focus is on large number of variations and combinations of physical processes we encounter in nature which are responsible for long-term environmental conditions. These conditions include dependencies and relationships that are based on Waldo Tobler's first law of geography, "Everything is related to everything else, but near things are more related than distant things."

The modeling creates inherent knowledge and understanding on how comprehensive the structure of spatial relationships relates to scientific solutions. This course can be taken by undergraduate students and may be considered for graduate credits for students in agriculture. The students are expected to develop better observational skills and knowledge of the processes that account for balance in complex environmental relationships. Students in agriculture are encouraged to take this course.

IT 509 3-0-3 Resource Conservation (Tampering of Water): This course expands the politics of fear on natural resources with the demands for sustainable environments and the definition of comfort; conflicts between socioeconomic activities and the conservation of energy and resources, and how the pursuit of happiness, expressions and adoption of superficial over philosophical lifestyles is exhausting available natural resources with great toll. Humans and their needs for water coexist in states of declining natural resource.

Mathematics Courses

MA 121 3-0-3 College Algebra I: This course is designed to introduce the student to the concept of a function and the study of functions. The course also includes study of basic geometry and coordinate geometry. This course together with Basic Mathematics (MA 111) will also serve as preparations towards the GRE in Mathematics. Topics covered are: Relations, functions and their graphs; polynomial equations, their graphs and zeros; fundamental theorems of algebra; rational functions and rational inequalities; circle, parabola, and ellipse; systems of linear equations; areas and volumes; angles and their properties; similarity and congruence of triangles.

MA 122 4-0-4 College Algebra II: This course is designed to introduce the student to the concept of a function and the study of functions. The course also includes study of basic geometry and coordinate geometry. This course together with Basic Mathematics (MA 111) will also serve as preparations towards the GRE in Mathematics. Topics covered are: Relations, functions and their graphs; polynomial equations, their graphs and zeros; fundamental theorems of algebra; rational functions and rational inequalities; circle, parabola, and ellipse; systems of linear equations; areas and volumes; angles and their properties; similarity and congruence of triangles.

MA 123 4-0-4 Quantitative Reasoning I: This course promotes mathematical literacy and problem solving skills among students in the context of everyday life and career perspectives. Topics may include basic logic, Venn diagrams for sets, units of measure, percentages and ratios, counting and probability, compound interests, statistical reasoning, exponential growth and decay. This course is designed to prepare the students with mathematical skills and quantitative reasoning necessary for various future professions. **Prerequisite:** None.

MA 124 3-0-3 Quantitative Reasoning II: This course promotes mathematical literacy and problem solving skills among students in the context of everyday life and career perspectives. Topics may include basic logic, Venn diagrams for sets, units of measure, percentages and ratios, counting and probability, compound interests, statistical reasoning, exponential growth and decay, linear and exponential models. This course is designed to prepare the students with mathematical skills and quantitative reasoning necessary for various future professions. **Prerequisite:** None.

MA 132 3-0-3 Trigonometry: Functions of angles and their applications to the solutions of right and oblique triangles. **Pre-requisite:** MA 121 or departmental permission.

MA 135 4-0-4 Pre-Calculus: This one semester course is designed to introduce the student to those topics in mathematics necessary for the successful study of calculus. Emphasis is put on developing the student's mathematical reasoning and problem solving abilities rather than the memorization of formulas, knowledge of techniques or computational skill. It is assumed that the student has already mastered College Algebra. **Pre-requisite:** MA 121 or permission from the department.

MA 181 4-0-4 Calculus I with Analytic Geometry: Limits, continuity, derivatives and their applications; antiderivatives and simple differential equations. **Pre-requisite:** MA 121 if the student's major in Computer Science/Mathematics or MA 135/MA 191 or department consent if the student has taken calculus in high school.

MA 182 4-0-4 Calculus II with Analytical Geometry: Riemann sum, Fundamental Theorem of Calculus, techniques of integration, Sequence and finite series, and applications to plane areas. **Pre-requisite:** MA 181.

MA 191 3-0-3 Honors Mathematics: This course is designed for freshman honor students. It gives the student practice in the many topics of elementary college mathematics. Major emphasis is placed on individual student activities.

MA 192 3-0-3 Honors Mathematics II: This course is a continuation of MA 191. It gives the student practice in the many topics and skills that are a step higher than college algebra and trigonometry. Major emphasis is placed on individual student activities. **Pre-requisites:** MA 191 or consent of the Honors Program.

MA 203 3-0-3 Foundation of Mathematics: A study of logic, set theory, relations and functions. Basic counting theory: Venn diagrams, power sets, numbers of injection (permutations) and combinations. A study of proofs involving sets and relations. **Pre-requisite:** Sophomore standing.

MA 220 3-0-3 Number Theory: Number theory is the mathematical treatment of questions related to the integers. Elementary number theory is that part of number theory not dependent on advanced mathematics, such as the theory of complex variables, abstract algebra, or algebraic geometry. This course covers common topics including congruences, multiplicative functions, primitive roots, quadratic residues, and continued fractions. **Pre-requisite:** MA 203.

MA 223 3-0-3 Introduction to Analysis with Applications: Arithmetic and geometric progressions. Functions, relations, and graphs. Matrix algebra, linear, quadratic, and exponential models, linear systems and linear programming. Differentiation and integration with applications. **Pre-requisite:** MA 121.

MA 283 3-0-3 Calculus III: Functions of several variables, partial derivatives, polar coordinates, double and triple integrals; applications to surfaces, areas, volumes, centroid and other physical problems, infinite series **Pre-requisite:** MA 182.

MA 304 3-0-3 Discrete Mathematics: Advanced study of combinations: Application of: inclusion-exclusion rules, counting multisets, derangements, and Bell Numbers (partitions). A study of graph theory, partially ordered sets, trees (directed and undirected). **Pre-requisite:** MA 203 with letter grade "C" or better or MA 182 or permission from the department.

MA 306 3-0-3 The Real Number System: Careful attention is given to the development of the number system and to various algorithms that represent the fundamental operation of arithmetic. Emphasis on problem solving and number systems. **Pre-requisite:** MA 121.

MA 307 3-0-3 Informal Geometry, Probability, Statistics and Related Topics: Emphasis on geometry, probability, statistics and use of computers; the development of basic concepts, definitions, constructions and related concepts. **Pre-requisite:** MA 306.

MA 334 3-0-3 College Geometry: Extension of Euclidean geometry to theorems not usually included in a high school plane geometry course. Geometry of the triangles, nine-point circle, homothetic figures, harmonic ranges and pencils, inversion, poles and polars, orthogonal circles, radical axis, cross ratio. **Pre-requisite:** MA 203 or departmental consent.

MA 335 3-0-3 History of Mathematics: Numeral systems, Agricultural Revolution, Babylonian and Egyptian period (3000- 525 BC), Pythagorean Mathematics, Greek problems of Antiquity (600-300 BC), Dawn of Modern Mathematics (Mathematicians of seventh century). Impact of calculus, Prominent Women Mathematicians, Prominent African American Mathematicians. **Pre-requisites:** MA 182, MA 304.

MA 336 3-0-3 Mathematical Modeling: Modeling process, modeling of discrete dynamical systems, Modeling using proportionality and geometric similarity, modeling with differential equations. Simulation modeling, Modeling Linear Programming. **Pre-requisite:** MA 182.

MA 346 3-0-3 Linear Algebra: Matrix Algebra, Systems of linear equations, Cramer's method, Gauss-Jordan method, Linear models in Business, Science, and Engineering, Eigenvalues, Cayley Hamilton theorem, Definition of a vector space, Euclidean spaces, and Matrix representation of geometrical transformations. **Pre-requisite:** MA 203.

MA 348 3-0-3 Differential Equations: Differential equations of the first, second, and third order, and their application to the problems relating to science and higher mathematics. **Pre-requisite:** MA 182 with letter grade “C” or better.

MA 367 3-0-3 Probability: This course is designed to acquaint students with the basic concepts of probability. Special emphasis is placed on counting theory, basic properties of probability, Bernoulli’s Method and Discrete Random Variables. **Pre-requisite:** MA 203 with letter grade “C” or better or MA 304.

MA 368 3-0-3 Mathematical Statistics: This course is designed to acquaint students with basic concepts of statistics. Special emphasis is placed on mathematical models with the application of calculus and probability. **Pre-requisites:** MA 367 and MA 182.

MA 369 3-0-3 Probability and Statistics: This course provides a rigorous introduction to basis probability theory and statistical inference. This course covers the following topics: Probability, random variables, distribution and density functions, expectation, discrete and continuous distributions estimation. **Pre-requisites:** MA 181 and MA 182.

MA 370 3-0-3 Operations Research: This course introduces mathematical techniques to formulate, analyze, and solve mathematical models of complex decision-making problems in the real-world. Topics include linear programming, simplex method, duality theory, sensitivity analysis, transportation and assignment problems, and network flow. **Pre-requisites:** MA 346.

MA 377 3-0-3 Statistics I: Graphic representations, measure of central tendency and variability, correlation, index numbers, normal probability and sampling distribution. **Pre-requisite:** MA 121.

MA 378 3-0-3 Statistics II: Fundamental principles of experimental designs, randomized blocks, Latin squares, linear regression, linear correlation, components of variance, factorial, confounding, split pot, covariance. **Pre-requisite:** MA 377.

MA 408 3-0-3 Advanced Calculus: Real number systems, sets, sequences, series limits, continuity and differentiability, mean value theorems, integration and differentiation. **Pre-requisites:** MA 182 and MA 203.

MA 412 3-0-3 Complex Variables: Complex numbers and their geometry. Functions of complex variable and their limit, continuity and derivability. Analytic functions. Differentiation, and integration of functions of complex variables. **Pre-requisites:** MA 283 and MA 203.

MA 443 3-0-3 Modern Abstract Algebra: Definition, examples and elementary properties of groups, Cyclic groups, Symmetric groups, Subgroups, Class equation, Normal subgroups, Quotient groups and homomorphism of groups, Cayley theorem. Rings and Ideals. **Pre-requisites:** MA 203, MA 220, and MA 346.

MA 444 3-0-3 Numerical Analysis: Numerical solutions of linear and non-linear equations, errors in numerical computations, polynomial approximations and finite differences, least square and cubic spline interpolation, numerical integration and numerical solution of ordinary differential equations. **Pre-requisite:** MA 182.

MA 449 3-0-3 General Topology: Set theory, metric spaces, topological spaces, limits, continuity, connectedness, compactness and convergence. **Pre-requisite:** MA 408.

MA 470 3-0-3 Research Project Part I: Student will conduct literature research, including journals and also Internet research on a math topic or research problem assigned by the advisor, and will study the researched materials. The research materials will be critically studied.

MA 471 3-0-3 Research Project Part II: Student will do critical research of the topic/problem of study in Part I (MA 471) and write a research article. The research will be presented to the department and defended in front of research committee of the department.

MA 472 3-0-3 Data Analysis I: This course covers concepts and features of linear and multilinear regression. Factor analysis, including analysis of variance (ANOVA) and experimental design. **Pre-requisites:** MA 378.

MA 473 3-0-3 Data Analysis II (Data Analytics): The course is an introduction to business analytics. It covers managerial statistical tools in descriptive analytics and predictive analytics, including regression. Other topics covered include forecasting, risk analysis simulation, and data mining, and decision analysis. **Pre-requisites:** MA 472.

MA 485 3-0-3 Teaching Mathematics in the Secondary School: This course presents methods in the secondary school, placing emphasis upon the integration of individual living in a democracy. It seeks to provide experiences leading to the creation of dynamic classroom conditions for effective teaching. Essentially a special methods course dealing with techniques and procedures on the high school level. Students will be required to prepare teaching units, lesson plans and examinations and to observe classroom teaching in nearby schools.

MA 491 1-0-3 Departmental Honors: A course that provides honor students with an opportunity to do independent study on some carefully chosen topic in mathematics with the guidance of an advisor. **Pre-requisites:** Senior standing and approval of department.

MA 492 1-0-3 Departmental Honors: A course that provides honor students with an opportunity to do independent study on some carefully chosen topic in mathematics with the guidance of an advisor. **Pre-requisites:** Senior standing and approval of department. **Pre-requisite:** MA 491.

MA 501 3-0-3 Introduction to Analysis I: Point set theory, sequences, continuity, uniform continuity, and properties of continuous functions, limits. Riemann integration.

MA 502 3-0-3 Logic, Sets, and Foundations of Mathematics: This course serves is an introduction to the foundations of mathematics and includes study of functions, relations, partially ordered sets, the axiom of choice, finite and infinite sets.

MA 503 3-0-3 Abstract Algebra I: Fundamental Theorems of homomorphism and isomorphism for group, class equation, Sylow Theorems, Structure of finite abelian groups.

MA 504 3-0-3 Axiomatic Geometry: A rigorous introduction to the axiomatic structure of Euclidean and non-Euclidean geometry.

MA 511 3-0-3 Introduction to Analysis II: Taylor's Theorem, improper integrals, infinite series, uniform convergence, directional derivatives, partial derivatives.

MA 512 3-0-3 Complex Variables: Rigorous introduction to the theory of complex variables.

MA 513 3-0-3 Abstract Algebra II: Rings, ideals, integral domains. Quotient Rings, prime and maximal Ideals, Fundamental Theorem of Homomorphism and Isomorphism. Quotient field, field, finite field, division ring. Field extensions: finite, infinite and algebraic.

MA 514 3-0-3 Synthetic Projective Geometry: Elementary treatment, without the use of coordinates, of fundamental propositions of projective geometry.

MA 515 3-0-3 General Topology: Set theory, metric spaces, topological spaces, limits, continuity, connectedness, compactness, and convergence.

MA 560 (1-3)-0-(1-3) Modern Topics in Mathematics: A study of modern topics taken from the literature and current research.

MA 561 3-0-3 Discrete Mathematics for Secondary Teachers: Discrete mathematics is the total in science of mathematics connections, provides a setting for problem solving with real world applications, capitalizing on technological setting, and fosters critical thinking and mathematical reasoning.

MA 570 6-0-6 Thesis: This course will require the student to initiate and carry to completion a research project under the supervision of a faculty member.

MA 585 3-0-3 Modern Methods of Teaching: A methods course taught by faculty from the various areas of endorsement in secondary education.

Management Courses

MG 301 3-0-3 Principles of Management: Course familiarizes students with current management concepts and practices as they apply to today's business world and examines the manager's role within the organization and the current business environment. **Pre-requisites:** EN 111 and 112, Junior Standing.

MG 320 3-0-3 Organizational Behavior: Course examines individual, group, and organizational level behavioral concepts, techniques, and applications required of effective managers within all types of organizations. **Pre-requisite:** MG 301.

MG 378 3-0-3 Entrepreneurship: Entrepreneurship identifies the management skills necessary for starting, buying, or working for a business with high growth potential. Areas address include the positives and negatives of starting a business, researching, and developing a business concept; investigating market factors; and planning financial strategies. Student will evaluate business ideas and develop a written feasibility plan. **Pre-requisite:** MG 301.

MG 388 3-0-3 Human Resource Management: Course presents a broad introduction to the nature, policies, and practices of personnel administration by examining the organization's internal and external environment. **Pre-requisite:** MG 301.

MG 401 3-0-3 Operations Management: An introduction to various components of the production and operations functions in both manufacturing and service organizations. Operations management is viewed as a system, as an organizational function, and as a decision-making support system. **Pre-requisites:** MG 301, MA223, Junior Standing.

MG 403: 3-0-3 Creativity and Innovation: This is a study of creativity process to help students to master creativity and innovation problem-solving techniques. Thus, exploit their entrepreneurial cultural thinking. **Pre-requisite:** MG 378.

MG 409 3-0-3 Management Science: The purpose of this course is to equip the student with the appropriate level of knowledge, skills and abilities in management science. Students are expected to demonstrate competence in topics as linear programming, transportation and assignment algorithms, PERT and Gantt, inventory models, decision theory, Markov models, queuing theory and simulation. **Pre-requisites:** MA 223, SS 307.

MG 410 3-0-3 Employee Relations and Collective Bargaining: Study of federal regulation of private and public sector human resource management practices. The history of collective bargaining and administration in the private and public sectors will be covered. **Pre-requisites:** MG 301, MG 388.

MG 418 3-0-3 Compensation Administration: The study of examination & evaluation of the compensation subsystem as a vital component in establishing a workplace structure that stimulates employee performance. **Pre-requisites:** MG 301, MG 388.

MG 421 3-0-3 Organizational Structure and Design: This course is designed for the student to understand the variety of ways in organizing companies in various environments. Theories of organizational design will be summarized. The application, strengths, and weaknesses of different organizational structures will be studied. **Pre-requisite:** MG 301.

MG 457 3-0-3 Small Business Management: The purpose of this course is to provide the student with appropriate knowledge, skill, and abilities needed to effectively create and operate a small business entity. **Pre-requisite:** Senior Standing, MG 301.

MG 480 3-0-3 Entrepreneurship Senior Capstone Project: The Senior capstone project allows students to implement the business plan that has been created through the concentration for their venture. Areas addressed included the positives and negatives of starting a business, researching, investigating market factors, and planning financial strategies. **Pre-requisite:** MG 378.

MG 492 3-0-3 Organizational Culture: The course will cover the nature, definitions, theories, and aspects of organizational culture. The course covers patterns of behavior and their relationship to organizational culture, especially the impact of the organization's business on employee behavior and culture. **Pre-requisites:** MG 301, MG 388.

MG 496 3-0-3 Strategic Management: The capstone course for all School of Business majors, this course requires the student to demonstrate competency in the ability to apply the knowledge skills and abilities developed in prior coursework to the analysis of company and industry performance and in formulating business policy. Note: This course will count towards graduation requirements of the School of Business Only if taken in the last semester of coursework. **Pre-requisite:** Senior Standing. **Co-requisite:** BA 499.

Marketing Courses

MK 301 3-0-3 Principles of Marketing: An introductory course in marketing and marketing strategy designed to provide instruction in the basic elements of the marketing including: principles and operations, macro-marketing, societal marketing, marketing ethics, the marketing concept and orientation, marketing environments, marketing strategy, the elements of the marketing mix, segmentation, target marketing and international issues. **Pre-requisites:** EN 111 and 112, Junior Standing.

MK 303 3-0-3 International Marketing: The theory, policy and practice of International trade including the strategic and tactical implications applied to cross-national differences in cultures, social processes, political processes, and economic systems. An emphasis is placed on approaches to initiating and expanding international trade and the challenges of managing cross-national and multinational marketing programs. **Pre-requisite:** MK 301.

MK 315 3-0-3 Retailing: Practical issues in retailing and the application of retailing theory to the management and administration of retail organization are studied. Some of these issues include market segmentation of retail customers, retail strategy, types of retail outlets, store atmospherics, design and layout, store location, consumer retail shopping behavior, customer relationship management, Yield management, merchandise planning and management, marketing communications, customer service and budgeting. **Pre-requisite:** MK 301.

MK 325 3-0-3 Sports Marketing: A study of marketing theory as it relates to the sports industry, including an examination of a variety of sports organizations. Will cover a wide range of sports including baseball, football, basketball, soccer, tennis, racing, golf and extreme sports. This course is designed for business and non-business majors. **Pre-requisite:** MK 301 or permission of instructor.

MK 336 3-0-3 Advertising: A study of methods used in formulating advertising policies, involving cases dealing with objectives, strategy, media selection, and organization of the advertising function. **Pre-requisite:** MK 301.

MK 376 3-0-3 Digital Marketing: This course explores digital media marketing and its impact on, and its integration with, traditional marketing strategies. Course will cover a wide variety of digital marketing methods including social media marketing, mobile marketing, and general internet marketing. **Pre-requisite:** MK 301.

MK 477 3-0-3 Marketing Management: The course covers an application of marketing functions using strategic planning techniques to affect market change. It includes a SWOT analysis and the development of a marketing plan. This course generally involves a major project. **Pre-requisites:** MK 301, Senior standing.

MK 483 3-0-3 Consumer Behavior: Consumer Behavior analyzes and studies the decision processes and acts of people involved in buying and using products including: why consumers make the purchases that they make, what factors influence consumer purchases, the changing factors in our society. A firm needs to analyze buying behavior for: Buyers reactions to a firm's marketing strategy has a great impact on the firm's success. The marketing concept stresses that a firm should create a Marketing Mix (MM) that satisfies (gives utility to) customers, therefore need to analyze the what, where, when and how consumers buy. Marketers can better predict how consumers will respond to marketing strategies. **Pre-requisite:** MK 301.

MK 490 3-0-3 Market Research: This course includes the study of basic research methods and techniques and their applications to marketing situation and issues. They include the acquisition and use of primary and secondary data, the primary research techniques of participant and non-participant observation, field and laboratory experiments, structured and unstructured interviews, questionnaires, sampling, and basic statistical data analysis, and research report writing and presentations. **Pre-requisite:** MK 301.

MK 495 3-0-3 Marketing Seminar: This course offers discussions of current issues in business topics will be chosen from new and current marketing trends or concepts. Specific topics are to be selected by the instructor and may vary each semester. **Pre-requisite:** MK 301 junior classification.

Military Science Courses

MS 100 2-0-2 Army Physical Conditioning Program: This course introduces students to the Army Physical Fitness Program. Students will meet and conduct physical exercise in accordance with US Army Physical Readiness Training found in US Army Training Circular 3-22-20.

MS 101 1-0-1 Introduction to the Army: ROTC Cadet training involves classroom instructions on leadership techniques, time management, ethics, critical thinking skills, and military operations; introduces Cadets to the personal challenges and competencies that are critical for effective leadership. Cadets learn how the personal development of life skills such as critical thinking, time management, goal setting, stress management, and comprehensive fitness relate to leadership, and the Army profession. The focus is on developing basic knowledge and comprehension of Army leadership dimensions while gaining a big picture of understanding the Reserve Officers' Training Corps (ROTC) program, its purpose in the Army, and its advantages for the student.

MS 101L 0-1-1 Military Science Lab: Cadets are provided the opportunity to apply their knowledge and understanding in a field setting during weekly practical exercises called a lab. This provides the opportunity for the Cadets to challenge themselves and learn in a safe environment. Labs range from topics covering Drill and Ceremony, Land Navigation, Squad Tactics and with a final culminating event at the end of each semester called Leader Stakes. All Labs are designed to develop the knowledge and leadership abilities of the cadets and reinforce concepts taught in MS 101.

MS 102 1-0-1 Foundations of Agile and Adaptive Leadership: ROTC Cadet training involves classroom instructions on leadership techniques, time management, ethics, critical thinking skills, and military operations. introduces Cadets to the personal challenges and competencies that are critical for effective leadership. Cadets learn how the personal development of life skills such as critical thinking, time management, goal setting, and communication. Cadets learn the basics of the communications process and the importance for leaders to develop the essential skills to effectively communicate in the Army. Cadets will begin learning the basics of squad level tactics that will be reinforced during weekly lab facilitated by MS III Cadets and supervised by Cadre.

MS 102L 1-0-1 Military Science Lab: Cadets are provided the opportunity to apply their knowledge and understanding in a field setting during weekly practical exercises called a lab. This provides the opportunity for the Cadets to challenge themselves and learn in a safe environment. Labs range from topics covering Drill and Ceremony, Land Navigation, Squad Tactics and with a final culminating event at the end of each semester called Field Training Exercise. All Labs are designed to develop the knowledge and leadership abilities of the cadets and reinforce concepts taught in MS 102.

MS 200 0-1-1 Army Physical Conditioning Program: This course introduces students to the Army Physical Fitness Program. Students will meet and conduct physical exercise in accordance with US Army Physical Readiness Training found in US Army Training Circular 3-22-20.

MS 201 2-0-2 Leadership and Decision Making: produces a cadet grounded in foundational leadership doctrine and skills by following and leading small units to achieve assigned missions; who applies critical thinking and problem solving using Troop Leading Procedures; who comprehends the value of diversity and understands the officer's role in leading change; understands the fundamentals of the Army as a profession.

MS 201L 1-0-1 Military Science Lab: ROTC Cadet training involves classroom instructions on leadership techniques, time management, ethics, critical thinking skills, and military operations. Cadets are provided the opportunity to apply their knowledge and understanding in a field setting during weekly practical exercises called a lab. This provides the opportunity for the Cadets to challenge themselves and learn in a safe environment. Labs range from topics covering Drill and Ceremony, Land Navigation, Squad Tactics and with a final culminating event at the end of each semester called Field Training Exercise. All Labs are designed to develop the knowledge and leadership abilities of the cadets and reinforce concepts taught in MS 201.

MS 202 2-0-2 Army Doctrine and Team Development: ROTC Cadet training involves classroom instructions on leadership techniques, time management, ethics, critical thinking skills, and military operations. focuses on Army doctrine and team development. The course begins the journey to understand and demonstrate competencies as they relate to Army doctrine. Army Values, Teamwork, and Warrior Ethos and their relationship to the Law of Land Warfare and philosophy of military service are also stressed. The ability to lead and follow is also covered through Team Building exercises at squad level. Students are then required to apply their knowledge outside the classroom in a hands-on performance-oriented environment during a weekly lab facilitated by MS III Cadets and supervised by cadre.

MS 202L 0-1-1 Military Science Lab: Cadets are provided the opportunity to apply their knowledge and understanding in a field setting during weekly practical exercises called a lab. This provides the opportunity for the Cadets to challenge themselves and learn in a safe environment. Labs range from topics covering Drill and Ceremony, Land Navigation, Squad Tactics and with a final culminating event at the end of each semester called Field Training. All Labs are designed to develop the knowledge and leadership abilities of the cadets and reinforce concepts taught in MS 202.

MS 250L 1-0-1 Basic Camp Cadet Summer Training: Basic Camp, is a paid internship conducted at Fort Knox, Kentucky. Students are assigned various missions and are evaluated on their performance in planning, directing and executing assigned tasks. Students must successfully complete the CST internship in order to enroll in the last year of the Army ROTC Program. Cadet Summer Training Basic Camp. Prerequisites: Students must have a minimum of 2 years of college credits and currently do not meet the prerequisites to enter the Advanced Leadership and Management Course at their junior year. Course is approximately one month, paid summer internship at Fort Knox, Kentucky. Students must sign a contractual letter of intent of attendance to qualify for the internship and they must enroll in the ROTC Advanced Program after completing his/her internship. This course introduces students to the Army Physical Fitness Program. Students will meet and conduct physical exercise in accordance with US Army Physical Readiness Training found in US Army Training Circular 3-22-20.

MS 300L 1-0-1 Army Physical Conditioning Program: This course continues building on the Army Physical Fitness Program. Students will meet and conduct physical exercise in accordance with US Army Physical Readiness Training found in US Army Training Circular 3-22.20. Students will take a record Army Physical Fitness Assessment as part of the course.

MS 301 3-0-3 Training Management and Warfighting Functions: ROTC Cadet training involves classroom instructions on leadership techniques, time management, ethics, critical thinking skills, and military operations. focuses on training management and the warfighting functions. It is an academically challenging course where you will study, practice, and apply the fundamentals of Training Management and how the Army operates through the Warfighting functions. At the conclusion of this course, you will be capable of planning, preparing, and executing training for a squad conducting small unit tactics. Includes a lab per week using peer facilitation overseen by MSL IVs, supervised by ROTC Cadre. Successful completion of this course will help prepare Cadets for the ROTC Advanced Camp, which they will attend in the summer at Fort Knox, KY. **Pre-requisites:** All MS 1XX and MS 2XX Level courses, the MS 250 course or prior military service (active or reserve).

MS 301L 1-0-1 Military Science Lab: Cadets are provided the opportunity to apply their knowledge and understanding in a field setting during weekly practical exercises called a lab. This provides the opportunity for the Cadets to challenge themselves and learn in a safe environment. Labs range from topics covering Drill and Ceremony, Land Navigation, Squad Tactics and with a final culminating event at the end of each semester called Leader Stakes. All Labs are designed to develop the knowledge and leadership abilities of the cadets and reinforce concepts taught in MS 301.

MS 302 3-0-3 Applied Leadership in Small Unit Operations: ROTC Cadet training involves classroom instructions on leadership techniques, time management, ethics, critical thinking skills, and military operations; focuses on applied leadership in small unit operations. It is an academically challenging course where you will study, practice, and apply the fundamentals of direct level leadership and small unit tactics at the platoon level. At the conclusion of this course, you will be capable of planning, coordinating, navigating, motivating and leading a platoon in the execution of a mission. Includes a lab per week using peer facilitation overseen by MSL IVs, supervised by ROTC Cadre. Successful completion of this course will help prepare you for the Cadet Summer Training Advance Camp, which you will attend in the summer at Fort Knox, KY. **Pre-requisites:** MS 350.

MS 302L 1-0-1 Military Science Lab: Cadets are provided the opportunity to apply their knowledge and understanding in a field setting during weekly practical exercises called a lab. This provides the opportunity for the Cadets to challenge themselves and learn in a safe environment. Labs range from topics covering Drill and Ceremony, Land Navigation, Squad Tactics and with a final culminating event at the end of each semester called Leader Stakes. All Labs are designed to develop the knowledge and leadership abilities of the cadets and reinforce concepts taught in MS 302.

MS 303 3-0-3 Military History: MS 303 introduces the undergraduate student to the social, political, military, economic, and cultural aspects of warfare. This course is a survey of the changing patterns of warfare within Western civilization, to include analyses of principal military thinkers and the evolving relationship among Western societies, warfare, and their military institutions.

MS 350 3-0-3 Advanced Cadet Summer Training Course (CST): Leadership Development Assessment Course, also known as Advanced Camp, is a paid internship conducted at Fort Knox, Kentucky. Students are assigned various missions and are evaluated on their performance in planning, directing and executing assigned tasks. Students must successfully complete the CST internship in order to enroll in the last year of the Army ROTC Program. **Pre-requisites:** MS 301 and MS 302.

MS 400L 0-1-1 Army Physical Conditioning Program: This course continues building on the Army Physical Fitness Program. Students will meet and conduct physical exercise in accordance with US Army Physical Readiness Training found in US Army Training Circular. Students will take a record Army Physical Fitness Assessment as part of the course. This course continues building on the Army Physical Fitness Program. Students will meet and conduct physical exercise in accordance with US Army Physical Readiness Training found in US Army Training Circular 3-22.20. Students will take a record Army Physical Fitness Assessment as part of the course.

MS 401 3-0-3 The Army Officer: focuses on the development of the Army Officer. It is an academically challenging course where you will develop knowledge, skills, and abilities to plan, resource, and assess training at the small unit level. You will also learn about Army programs that support counseling subordinates and evaluating performance, values and ethics, career planning, and legal responsibilities. At the conclusion of this course, you will be familiar with how to plan, prepare, execute, and continuously assess the conduct of training at the company or field grade officer level. Includes a lab per week overseeing MS III lesson facilitation and supervised by ROTC Cadre. **Pre-requisites:** MS 302.

MS 401L 0-1-1 Military Science Lab 401: ROTC Cadet training involves classroom instructions on leadership techniques, time management, ethics, critical thinking skills, and military operations. Cadets are provided the opportunity to apply their knowledge and understanding in a field setting during weekly practical exercises called a lab. This provides the opportunity for the Cadets to challenge themselves and learn in a safe environment. Labs range from topics covering Drill and Ceremony, Land Navigation, Squad Tactics and with a final culminating event at the end of each semester called Field Training Exercise. All Labs are designed to develop the knowledge and leadership abilities of the cadets and reinforce concepts taught in MS 401.

MS 410 3-0-3 The Army Officer: focuses on the development of the Army Officer. It is an academically challenging course where you will develop knowledge, skills, and abilities to plan, resource, and assess training at the small unit level. You will also learn about Army programs that support counseling subordinates and evaluating performance, values and ethics, career planning, and legal responsibilities. At the conclusion of this course, you will be familiar with how to plan, prepare, execute, and continuously assess the conduct of training at the company or field grade officer level. Includes a lab per week overseeing MS III lesson facilitation and supervised by ROTC Cadre. **Pre-requisites:** MS 402/402L.

MS 410L 0-1-1 Military Science Lab (Independent Study): ROTC Cadet training involves classroom instructions on leadership techniques, time management, ethics, critical thinking skills, and military operations. Cadets are provided the opportunity to apply their knowledge and understanding in a field setting during weekly practical exercises called a lab. This provides the opportunity for the Cadets to challenge themselves and learn in a safe environment. Labs range from topics covering Drill and Ceremony, Land Navigation, Squad Tactics and with a final culminating event at the end of each semester called Field Training Exercise. All Labs are designed to develop the knowledge and leadership abilities of the cadets and reinforce concepts taught in MS 410.

MS 402 3-0-3 Company Grade Leadership: is an academically challenging course where you will develop knowledge, skills, and abilities required of junior officers pertaining to the Army in Unified Land Operations and Company Grade Officer roles and responsibilities. This course includes reading assignments, homework assignments, small group assignments, briefings, case studies, practical exercises, a midterm exam, and an Oral Practicum as the final exam. The Oral Practicum explores your knowledge of how you will be prepared for the 20 Army Warfighting Challenges covered throughout the ROTC Advanced Course. Successful completion of this course will assist in preparing you for your BOLC B course and is a mandatory requirement for commissioning. Includes a lab per week overseeing MS III lesson facilitation and supervised by ROTC Cadre. **Pre-requisites:** MS 401.

MS 402L 0-2-1 Military Science Lab: ROTC Cadet training involves classroom instructions on leadership techniques, time management, ethics, critical thinking skills, and military operations. Cadets are provided the opportunity to apply their knowledge and understanding in a field setting during weekly practical exercises called a lab. This provides the opportunity for the Cadets to challenge themselves and learn in a safe environment. Labs range from topics covering Drill and Ceremony, Land Navigation, Squad Tactics and with a final culminating event at the end of each semester called Leader Stakes. All Labs are designed to develop the knowledge and leadership abilities of the cadets and reinforce concepts taught in MS 402.

MS 420 3-0-3 Company Grade Leadership (Independent Study): is an independent study and academically challenging course where you will develop knowledge, skills, and abilities required of junior officers pertaining to the Army in Unified Land Operations and Company Grade Officer roles and responsibilities. This course includes reading assignments, homework assignments, small group assignments, briefings, case studies, practical exercises, a midterm exam, and an Oral Practicum as the final exam. The Oral Practicum explores your knowledge of how you will be prepared for the 20 Army Warfighting Challenges covered throughout the ROTC Advanced Course. Successful completion of this course will assist in preparing you for your BOLC B course and is a mandatory requirement for commissioning. Includes a lab per week overseeing MS III lesson facilitation and supervised by ROTC Cadre. **Pre-requisites:** MS 402.

MS 420L 0-1-1 Military Science Lab 420 (Independent Study): ROTC Cadet training involves classroom instructions on leadership techniques, time management, ethics, critical thinking skills, and military operations. Cadets are provided the opportunity to apply their knowledge and understanding in a field setting during weekly practical exercises called a lab. This provides the opportunity for the Cadets to challenge themselves and learn in a safe environment. Labs range from topics covering Drill and Ceremony, Land Navigation, Squad Tactics and with a final culminating event at the end of each semester called Leader Stakes. All Labs are designed to develop the knowledge and leadership abilities of the cadets and reinforce concepts taught in MS 402.

Music Courses

MU 001-008 0-4-0 Ensemble: The various performing groups include marching band, wind ensemble, concert band, and concert choir. These ensembles are designed to provide laboratory experience for music and non-music majors by learning effective rehearsal processes and producing polished performances.

MU 011-018 0-4-1 Ensemble: The various performing groups include marching band, wind ensemble, concert band, University choir, and concert choir. These ensembles are designed to provide laboratory experience for music and non-music majors through arranging, composing, conducting, and performing.

MU 022-028 0-3-1 Jazz Ensemble: A performance oriented ensemble designed to provide experience for instrumentalists and vocalists.

MU 031 0-3-1 Jazz Combo: A performance oriented class designed to provide improvisational experience in various jazz styles in small ensemble settings. **Pre-requisite:** Permission of instructor.

MU 051 1-2-0 Applied Music: Designed for music majors without adequate preparation on applied instrument. Admitted to MU 121 by successful audition.

MU 100 3-0-3 Introduction to Music: A course designed to give basic training in the fundamentals of music and elementary theory. Emphasis is placed on scales, key signatures, intervals, triads, sight-singing, and ear-training exercises. (Not counted toward a music major.)

MU 101-102 1-0-1 Aural Skills: The development of sight-singing and ear training skills with emphasis on melodic, rhythmic, and harmonic dictation.

MU 102 2-1-2 Band Instrument Repair: A course designed to give music majors and non-majors instruction in the repair and maintenance of band instruments.

MU 111 3-1-3 Theory and Musicianship: A study of intervals, triads, figured bass, four-part harmony in the style of Bach, elements of form, simple piano accompaniment patterns.

MU 112 3-1-3 Theory and Musicianship: A study of inversions of triads, non-chord tones, development of motives into phrases and periods, simple binary and ternary form, analysis of representative works. **Pre-requisite:** MU 111.

MU 114 2-1-2 Introduction to Music Literature: A survey of music literature from Baroque to present day with emphasis on the development of musical styles.

MU 121-424 1-0-(2-3): Applied lessons offered in the following areas: piano, organ, voice, violin, viola, cello, string bass, guitar, flute, oboe clarinet, bassoon, saxophone, trumpet, French horn, trombone, euphonium, tuba, and percussion. MU 121, MU 122, MU 221, MU 222, MU 321, MU322, MU421, MU422, (Music Education); MU 123, MU 124, MU 223, MU 224, MU 323, MU 324, MU 423, MU424 (Music Performance). **Non music majors must have permission of the instructor before enrolling in an applied course.**

MU 151 1-1-1 Piano Class I: A course designed to introduce the keyboard to those students without previous experience at the piano.

MU 152 1-1-1 Piano Class II: Continuation of MU 151.

MU 161 2-0-2 Voice Class: An introduction to the basic principles of singing which will include special emphasis upon posture, breath support, ease, naturalness, free tone, pure vowels, and style orientation through listening and singing. Open to non-majors.

MU 162 2-0-2 Voice Class: A continuation of MU 161.

MU 163 2-0-2 Voice Class: Continued emphasis upon breath support, ease naturalness, free tone and pure vowels. Additionally, diphthong, articulation, enunciation, resonance, legato and sostenuto singing will be emphasized as a basis for future progress.

MU 164 2-0-2 Voice Class: A continuation of MU 163.

MU 201-201 1-0-1 Aural Skills: The advanced study of sight-singing and ear training skills.

MU 202 2-0-2 Guitar Class: A practical study of the guitar with particular emphasis on its use in secondary schools.

MU 203 1-1-1 String Class I: Principles of teaching string instruments and elementary playing as a practical introduction to the technical problems involved. Instruments taught include violin, viola, cello, double bass, and guitar.

MU 204 2-0-2 String Class II: Continued study of major and minor scales, chromatic scales and arpeggios, advanced articulation and bowing, second and third position fingering. Students are required to perform in representative string ensembles.

MU 205 2-0-2 Survey of Instruments: Practical laboratory study of instruments (winds, string, fretted, and percussion) designed to develop a functional knowledge for non-instrumental music education majors.

MU 206 2-0-2 Woodwind Class: The study of oboe, clarinet, flute, saxophone, and bassoon with related problems of embouchure, diatonic and chromatic fingerings, technique and vibrato. Emphasis on regular maintenance. A survey of beginning to advanced instruction books. The student is expected to attain a level of proficiency on at least two woodwind instruments (excluding saxophone).

MU 208 2-0-2 Brass Class: The principles of teaching brass wind instruments and elementary playing as a practical introduction to the technical problems involved.

MU 209 2-0-2 Percussion Class: The principles of teaching percussion instruments and elementary playing. Instruments taught include snare, bass, tympani, chimes, marimba, vibraphone, xylophone and other percussion instruments that are frequently employed.

MU 210 0-2-1 Opera and Musical Theater Workshop: A performance oriented course geared to learning the basics of stage movement for singers with emphasis on: timing stage direction to music; using body and face to show emotions; dancing; singing from various positions; developing characters; and memorizing roles. The course includes performances of solo scenes, duets, trios, quartets and one act operas.

MU 211 3-0-3 Theory and Musicianship: A study of seventh chords and their inversions, ninth chords, secondary dominant and leading tone chords, and common chord modulations. **Pre-requisite:** MU 112.

MU 212 3-0-3 Theory and Musicianship: A study of Neapolitan chords, augmented sixth chords, chromatic harmony, original compositions in given styles and forms, analysis of music from the Romantic period. **Pre-requisite:** MU 211.

MU 213 3-0-3 Music Appreciation: A cultural course in the application of music, planned to develop listening and individual understanding of the composer's musical message.

MU 231 3-0-3 Jazz Theory I: A study of scales, chords, cadences, secondary dominants, common chord progressions, substitute dominants and dominant seventh chord scales, analysis and non-functional harmony as practiced in the jazz idiom. **Pre-requisite:** MU 112 or permission of instructor.

MU 232 3-0-3 Jazz Theory II: A study of major chords substitutions, minor key harmony, modulation, reharmonization, analysis and contemporary techniques as practiced in the jazz idiom. **Pre-requisite:** MU 231 or permission of instructor.

MU 252 2-0-2 Voice Class: Laboratory course for elementary vocal instruction combined with methods and procedures for choral use of the voice. This course is designed for instrumental majors.

MU 253 1-1-1 Piano Class III: Continuation of Piano Class II.

MU 254 1-1-1 Piano Class IV: Continuation of Piano Class III.

MU 272 2-0-2 Jazz Improvisation I: The development of jazz improvisation skills with emphasis on studying complex harmonic jazz progressions and jazz compositions. **Pre-requisite:** MU 112 or permission of the instructor.

MU 273 2-0-2 Jazz Improvisation: The development of jazz improvisation skills with emphasis on studying complex harmonic jazz progressions and jazz compositions. **Pre-requisite:** MU 272 or permission of the instructor.

MU 311 3-0-3 Theory and Musicianship: The techniques of counterpoint and form and analysis practically applied to creative works. **Pre-requisite:** MU 212.

MU 312 3-0-3 Theory and Musicianship: The techniques of orchestration and twentieth century composition practically applied to creative works. **Pre-requisite:** MU 212.

MU 314 3-0-3 Music in Elementary Schools: This course is design for majors in elementary education who will teach a phase of music in relation to other subject matter. It entails a study of the principles, procedures, and objectives in school music. The various methods used in successful music teaching by elementary classroom teachers are presented through singing, playing, listening, creative, and rhythmic activities.

MU 315 3-0-3 Music History I: An analysis of Western civilization music from antiquity to 1750 with emphasis on the development of musical forms and styles. **Pre-requisite:** MU 212.

MU 316 3-0-3 Music History II: An analysis of music from 1750 to the present with emphasis on musical forms and styles and music of diverse cultures. **Pre-requisite:** MU 212.

MU 317 2-0-2 Music in The Romantic Period: An historical and stylistic study of major composers and their works during the Romantic period. **Pre-requisite:** MU 112.

MU 318 2-0-2 Music in the Renaissance Period: Music in the Renaissance Period provides a basic introduction to the beginnings of music and it's development up to the Baroque period. Composers, music techniques, and writing samples will all be explored. Political climates will be taken into account in regards to how art reflected what was going on politically and socially. Students will be expected to do an ample amount of listening and thus be able to recognize and identify specific styles and composers. **Pre-requisite:** MU 112.

MU 319 2-0-2 Music in the Baroque Period: Music in the Baroque Period provides an understanding of the Baroque period and its various forms. Composers, musical form and new vocal and instrumental approaches will all be explored. Political climates will be taken into account in regards to how art reflected what was going on politically and socially. Students will be expected to do an ample amount of listening and thus be able to recognize and identify specific styles and composers. **Pre-requisite:** MU 112.

MU 320 2-0-2 Music in the Twentieth Century: Music in the Twentieth Century explores contemporary classical music, jazz, and popular music genres. New ideas in theory, structure, and interpretation/usage of instruments will be addressed. Political climates will be taken into account in regards to how art reflected what was going on politically and socially. Students will be expected to do an ample amount of listening and thus be able to recognize and identify specific styles and composers. **Pre-requisite:** MU 112.

MU 326 2-0-2 Music in the Classical Period: Music in the Classical Period provides an understanding of the Classical through the Romantic periods and their various forms. Composers, musical form and new vocal and instrumental approaches will all be explored. Political climates will be taken into account in regards to how art reflected what was going on politically and socially. Students will be expected to do an ample amount of listening and thus be able to recognize and identify specific styles and composers. **Pre-requisite:** MU 112.

MU 327 3-1-3 Jazz History: A study of the music and major composers and performers in jazz from its origins through the present. Emphasis on gaining an analytical and aural understanding of the major techniques used in each of the stylistic periods of the music. **prerequisites:** MU 212 or permission of instructor.

MU 332 3-0-3 Conducting: The principles of conducting both instrumental and vocal music with emphasis on score reading, program planning, rehearsal procedures and literature. **Pre-requisite:** MU 212.

MU 337 3-0-3 Systemic Approaches to Elementary Music: The study of principles, methods, materials, objectives, and procedures appropriate for the general and specialized aspects of the music program in elementary schools. Attention is given to the practical application of tests and measurement procedures, audio-visual equipment, computer technology in the classroom, and preparation for teacher education exit exams. **Pre-requisite:** MU 112.

MU 339 3-0-3 Systemic Approaches to Secondary Music: The study of principles, methods, materials, objectives, and procedures appropriate for the general and specialized aspects of the music program in secondary schools. Attention is given to the practical application of tests and measurement procedures, audio-visual equipment, computer technology in the classroom, and preparation for teacher education exit exams. **Pre-requisite:** MU 112.

- MU 340 2-0-2 Instrumental Literature:** A study of instrumental literature from the pre-Baroque to the twentieth century, along with analysis and performance techniques. **Pre-requisite:** MU 112.
- MU 341 2-0-2 Piano Literature:** A study of keyboard literature from the pre-Baroque to the twentieth century, along with analysis and performance techniques. **Pre-requisite:** MU 112.
- MU 342 2-0-2 Vocal Literature:** A study of vocal literature from the pre-Baroque to the twentieth century along with analysis and performance techniques. **Pre-requisite:** MU 112.
- MU 346 2-0-2 Chamber Music:** A study of the historical background, literature, media, forms, and styles of small ensemble music. It includes organization, rehearsal and performance in chamber music ensembles. **Pre-requisite:** MU 112.
- MU 347 2-0-2 Accompanying:** Exploring the techniques of accompanying in solo and ensemble situations. Emphasis will be on preparation techniques, the demands of an accompanying career, and performing.
- MU 348 2-0-2 Diction I:** Study of the pronunciation and articulation of English and Italian emphasizing the International Phonetics Alphabet. Students will prepare English and Italian art songs, arias, Musical Theatre and jazz selections.
- MU 349 2-0-2 Diction II:** Study of the pronunciation and articulation of French and German emphasizing German lieder, French art songs, French and German arias, and other literature.
- MU 350 2-0-2 Classical Performance Practices:** A study of the historical and authentic performance of music up to and including the Romantic Period. Students will consult historical treatises and evidence to gain insight into the performance practices of the major historical eras including the Renaissance, Baroque, Classical, and Romantic.
- MU 352 2-0-2 Contemporary Performance Practices:** An exploration of the performance of contemporary music and expectations of modern audiences. Style, techniques and technology is explored. Students will prepare written and verbal presentations and perform music on their major applied instrument.
- MU 371 2-0-2 Instrumental Pedagogy and Practicum:** Survey of teaching techniques, materials, practices, and theories for the student's major instrument. Supervised individual and group instruction of students at various levels of development.
- MU 373 2-0-2 Vocal Pedagogy and Practicum:** A Study of vocal anatomy, practical application, recognition and identification of vocal problems and corrective procedures, teaching materials, observation, and supervised teaching experiences.
- MU 375 2-0-2 Piano Pedagogy and Practicum:** Survey of teaching techniques, materials and practices. Observation and teaching experiences of individual and group instruction.
- MU 401 2-0-2 Foundation and Principles of Music Education:** A study of historical, philosophical, and administrative aspects of music education. Attention is given to major historical movements and practices, as well as current trends in music education. **Pre-requisite:** MU 311.
- MU 403 2-0-2 Independent Study:** Independent research on a topic related to the student's major instrument or some aspect of music history and/or theory. **Pre-requisite:** MU 112.
- MU 405 2-0-2 Career Management:** An investigation of those items which one should consider when conducting a career as a professional musician. Topics for study include but are not limited to: writing an artist bio, mastering your music, tax considerations, branding and marketing, starting a music business, copyright issues, and management issues, etc.
- MU 432 2-0-2 Opera:** The history and development of opera from 1600 to the present. **Pre-requisite:** MU 112.

MU 461 2-0-2 Band Techniques: The organization and administration of instrumental music programs. Included are fundamental and pedagogical approaches of marching bands, concert bands, and ensembles; supervision, programming, show planning, and special arrangements for marching bands. **Pre-requisite:** MU 212.

Nutrition Courses

ND 101 1-0-1 Health and Wellness: The course will introduce students to the field of nutrition. Topics will include carbohydrates, fats, food labeling, food regulations, weight control, exercise and diets.

ND 214L 2-1-3 Meal Management: Students will study the principles of food selection, planning, preparation, and service of meals. Efficiency in the use of food dollars, time, and energy will be emphasized. Students will also perform laboratory experiences in meal management.

ND 225 3-0-3 Introduction to Nutrition: A study of the body's need for food, including the chemistry of digestion, metabolism, and nutritive requirements of the body during the life cycle. Students will study the principles of nutrition including: nutrient sources, functions, metabolism, dietary requirements and methods of evaluating the practical importance of nutrition in humans.

ND 230 2-1-3 Nutritional Assessment: The course explores standards for nutrient intake, methods for measuring diets and the strengths and weaknesses of each technique; results from National Nutrition Surveys; anthropometric techniques, for healthy and ill people; nutritional assessments in disease prevention; laboratory methods of assessing nutrients and reviews of the major theories and techniques of both individuals and group counseling methods. **Pre-requisite:** ND 225.

ND 248 3-0-3 Maternal and Child Nutrition: This course will provide an overview of nutrition issues affecting pregnant and postpartum women, females of reproductive age, infants and young children. Influence of maternal and infant nutrition on the health of populations. Application of evidence-based approaches to maternal and infant nutrition recommendations. **Pre-requisite:** ND 225.

ND 316 1-0-1 Current Trends in Nutrition: Students will explore recent developments in the field of nutrition, prepare written reviews and present a final project. **Pre-requisite:** ND 225.

ND 320 3-0-3 Nutrition Through the Life Cycle: This course presents an overview of the special nutritional issues and requirements during different periods of the life cycle. **Pre-requisite:** ND 225.

ND 321 3-0-3 Nutrition and Education Counseling: This course focuses on the principles, methods and materials needed to apply nutrition education and counseling processes. Emphasis is placed on behavior changes and developing the skills needed to be an effective nutrition educator and counselor. **Pre-requisite:** ND 225.

ND 322 3-0-3 Community Nutrition: In this course students study the principles of Public Health and Community Nutrition, Epidemiology, Healthcare, Legislation, and Nutrition. Principles of entrepreneurship and their application to community nutrition are examined. The course also focuses on the tools of the community nutritionist: program planning, management, leadership, budgeting, social marketing, evaluation, principles of community needs assessment, and the knowledge of consumer behavior. **Pre-requisite:** ND 225.

ND 325 3-0-3 Nutritional Biochemistry: This course will study the effects of specific nutrients in human metabolism. Digestion, function, and metabolism of proteins and amino acids, carbohydrates, and lipids. Detailed analysis of the digestion, absorption, transport, and intermediary metabolism of nutrients. Nutrient requirements are evaluated in the context of their physiological and biochemical functions. This will include lectures and discussions on metabolic pathways and the role of specific nutrients in these pathways. **Pre-requisites:** CH 121, or 122 and CH 121L or 122L

Nuclear Engineering Technology Courses

NE 100 1-0-1 Nuclear Engineering: This is an introductory course for students beginning their studies in nuclear engineering technology. It describes basic history of the field and what is involved in the study of the field.

NE 200 3-0-3 Introduction to Nuclear Engineering: This course includes global and national energy requirements, radioactivity, radiation protection, and fission and fusion reactor concepts, types of nuclear power production reactors.

NE 205 3-0-3 Nuclear Reactor Systems: A survey of nuclear power production systems are reviewed, their major components are described. Major types of nuclear reactors are studied and advantages and disadvantages are explained and new types of advanced systems and future generations are studied.

NE 300 3-1-3 Radiation Instrumentation: This course studies the interaction of radiation with matter; of various nuclear radiation, principles of radiation detectors are studied. The theoretical and experimental properties of radioisotopes applied to industry are considered and evaluated from engineering technology point of view. **Pre-requisites:** PY 215, PY 216, NE 200.

NE 301 3-0-3 Nuclear Reactor Theory I: This course is an introduction to fundamentals that apply to neutron diffusion theory, neutron moderation, conditions for criticality of nuclear reactors. **Pre-requisites:** PY 215, PY 216, NE 205.

NE 302 3-0-3 Nuclear Reactor Theory II: Continuation of NE 301. This course includes the study of basic radioactivity, nuclear and neutron physics as applied to nuclear engineering. **Pre-requisite:** NE 301.

NE 304 3-0-3 Nuclear Reactor Materials: This course studies the physical, chemical and metallurgical properties of the materials that are used in structural components and fuels of the nuclear reactor systems. **Pre-requisites:** PY 215, PY 216, CH 121, CH 122 or consent of instructor.

NE 400 3-0-3 Nuclear Design: The study of conventional and advanced generation power reactors, nuclear simulators, transient analysis using available software for reactor simulators; nuclear engineering design methodology; problem formulation and case studies. **Pre-requisite:** NE 205.

NE 401 3-0-3 Reactor Safety: This course investigates the design base safety aspect of the nuclear reactor systems. Possible accidents that can occur are studied and the engineering safety systems that are designed to prevent all undesirable situations are explained.

NE 402 3-0-3 Nuclear Heat Transfer: This course studies transport phenomenon with emphasis on the application to nuclear reactors. **Pre-requisites:** NE 205, EG 313.

NE 403 3-0-3 Nuclear Steam Cycle: This course is a continuation of NE 402 and discusses the nuclear steam generation cycle, its components description and operation, and their optimization. **Pre-requisites:** NE 402, EG 313.

NE 404 3-0-3 Nuclear Fuel Cycle: This course studies nuclear fuel systems, their core arrangement, core residency, and physics and engineering issues associated with them. **Pre-requisites:** NE 301, NE 302, NE 304.

NE 406 3-0-3 Nuclear Wastes Management: This course studies issues associated with nuclear reactor wastes, their types, handling, treatments, and management. **Pre-requisite:** NE 404 or consent of instructor.

NE 408 3-0-3 Environmental Aspects of Nuclear Power: Environmental aspects of nuclear power. Environmental issues related to radiation and nuclear are studies including NORM and natural radiation environment. The type, magnitude and distribution of radioactivity added to environment by man-made activities. The evaluation of effects of radiation and radioactivity on ecosystems. **Pre-requisite:** consent of instructor.

NE 410 3-0-3 Nuclear Computation: This course studies applications of computers to solve nuclear engineering problems. They include problems in multi-group neutron diffusion, transient heat transfer, optimization and stress analysis. **Pre-requisites:** NE 301, NE 302.

Nursing Courses

NU 118 4-12-8 Foundations of Client-Centered Care: This course provides a foundation of nursing with emphasis placed on the knowledge and skills needed to provide safe, quality care. The theoretical foundation for basic assessment and nursing skills is presented, and the student is given an opportunity to demonstrate these skills in a clinical setting. The course introduces the concepts of patient-centered care, professionalism, leadership, systems-based practice, informatics and technology, communication, teamwork and collaboration, and quality improvement. **Pre-requisites:** Admission to ASN Program, BI 114; BI 114L; BI 214; BI 214L; MA121; UL 101; **Co-requisites:** EN 111; SY 235.

NU 128 4-12-8 Client-Centered Care I: This course focuses on client-centered care of individuals experiencing acute and chronic conditions related to alterations in fluid and electrolyte and acid-base balance, oxygenation, cardiac output and tissue perfusion, and sensory perception. In addition, care of the pre- and post-operative clients and oncology clients is included. The concepts of client-centered care, professionalism, leadership, systems-based practice, informatics and technology, communication, teamwork and collaboration, and quality improvement are integrated in this course. Clinical experiences provide students the opportunity to apply the principles of safe and effective delivery of care in a variety of settings. **Pre-requisites:** NU 118; BI 114; BI 114L; BI 214; BI 214L; MA 121; UL 101; EN111; SY 235 **Co-requisites:** BI 325; BI 325L.

NU 218 4-12-8 Client-Centered Care II: This course focuses on the care of clients experiencing acute and chronic conditions related to alterations in regulation and metabolism, excretion, and reproduction across the lifespan. Additionally, this course provides an integrative, family-centered approach to the care of mothers, newborns, and children. The concepts of client-centered care, professionalism, leadership, systems-based practice, informatics and technology, communication, teamwork and collaboration, and quality improvement are integrated in this course. Clinical experiences provide students the opportunity to apply the principles of safe and effective delivery of care in a variety of settings. **Pre-requisites:** NU 118; NU 128; BI 114; BI 114L; BI 214; BI 214L; MA 121; UL 101; EN111; SY 235; BI 325; BI 325L; **Co-requisite:** PH 320: Elective.

NU 223 3-0-3 Role Transition: This course focuses on the basic principles of leadership and management, trends and issues in nursing, moral, ethical, and legal implications, and the process of transitioning from the role of student to professional nurse. Emphasis is placed on nursing within the microsystem of a work unit, contemporary issues and management concepts, as well as developing the skills of delegation, conflict management, and leadership. **Pre-requisites:** NU 118; NU128; BI 114; BI 114L; BI 214; BI 214L; MA 121; UL 101; EN 111; SY 235; BI 325; BI 325L; PH 320; Elective; **Co-requisite:** NU 229.

NU 229 4-15-9 Client-Centered Care III: This course focuses on client-centered care of individuals experiencing acute and chronic conditions related to alterations in Ingestion, digestion, absorption, and elimination, cognition and sensation, immunity, integument, mobility and alterations in mental health. The concepts of client-centered care, professionalism, leadership, systems-based practice, informatics and technology, communication, teamwork and collaboration, and quality improvement are integrated in this course. Clinical experiences provide students the opportunity to apply the principles of safe and effective delivery of care to groups of clients in a variety of settings. **Pre-requisites:** NU 118; NU 128; BI 114; BI 114L; BI 214; BI 214L; MA 121; UL 101; EN111; SY 235; BI 325; BI 325L; PH 320; Elective **Co-requisite:** NU 223.

NU 330 3-0-3 Health Assessment: This course provides the framework for preparing students to perform comprehensive health assessments on clients across the lifespan. Emphasis is placed on taking a thorough nursing history, performing physiological, psychological, sociological, cultural, and spiritual assessments, as well as identification of stressors and health risks. **Pre-requisite:** Admission to the BSN program. **Co-requisites:** NU330L; NU331; NU331L; NU332; NU333.

NU 330L 0-3-1 Health Assessment Lab: This course provides the framework for preparing students to perform comprehensive health assessments on clients across the lifespan. Laboratory experiences provide an opportunity to practice assessment skills on clients across the lifespan in a variety of settings. **Pre-requisite:** Admission to the BSN program. **Co-requisites:** NU330; NU331; NU331L; NU332; NU333.

NU 331 3-0-3 Fundamentals of Client Care and Introduction to Professional Nursing: This course provides an introduction to nursing and roles of the nurse in micro- and macrosystems, as well as profession related and client care concepts. Emphasis is placed on the knowledge and skills needed to provide safe, quality care. The theoretical foundation for basic assessment and nursing skills is presented, and the student is given an opportunity to demonstrate these skills in a clinical laboratory setting. An introduction to the nursing process provides a decision-making framework to assist students in developing effective clinical judgment skills. **Pre-requisite:** Admission to the BSN program **Co-requisites:** NU 330; NU 330L; NU 331L; NU 332; NU 333.

NU 331L 0-6-2 Fundamentals of Client Care and Introduction to Professional Nursing: This course focuses on an introduction to nursing and roles of the nurse in micro- and macrosystems, as well as profession related and client care concepts. Emphasis is placed on the knowledge and skills needed to provide safe, quality care. The student is given an opportunity to demonstrate these skills in the skills laboratory, virtual hospital, and a variety of clinical settings. An introduction to the nursing process provides a decision-making framework to assist students in developing effective clinical judgment skills. **Pre-requisite:** Admission to the BSN program. **Co-requisites:** NU 330; NU 330L; NU 331; NU 332; NU 333.

NU 332 3-0-3 Introduction to Pharmacology: This course provides an introduction to the principles of pharmacology, including: pharmacokinetics, pharmacodynamics, medication interactions and potential adverse medication reactions. Emphasis is placed on drug classifications and nursing care related to the safe administration of medication to patients across the life span. **Pre-requisite:** Admission to BSN Program. **Co-Requisites:** NU 330; NU 330L; NU 331; NU 331L; NU 333.

NU 333 3-0-3 Basic Pathophysiology: This course focuses on the altered processes of human physiology. An emphasis is placed on exploring changes of biological process of the body and the effects on homeostasis. Alterations of health problems are studied along with the associated clinical manifestations and treatments. Admission to BSN Program. **Co-Requisites:** NU 330; NU 330L; NU 331; NU 331L; NU 332.

NU 334 3-0-3 Research and Evidence-Based Practice: This course is designed to promote clinical decision making, based on evidence, through the exploration and integration of current scientific evidence, use of clinical reasoning, identification of client preferences, and assessment of available resources. Focus is placed on the analysis and synthesis of evidence to answer a clinical question relevant to nursing practice and client centered care. **Pre-requisites:** NU 330; NU 330L; NU 331; NU 331L; NU 332; NU 333; **Co-requisites:** NU 335; NU 335L; NU 336; NU 336L; NU 337; NU 337L.

NU 335 3-0-3 Nursing Care of Clients Experiencing Common Health Problems: This course focuses on the care of clients with common health alterations across the lifespan that require medical and/or surgical intervention. Emphasis is placed on the care of clients with alterations in selected body functions. Concepts of client centered care, teamwork and collaboration, evidence based practice, quality improvement, safety, informatics, leadership, communication, systems based practice and professionalism are integrated throughout the course. Clinical experiences provide the student an opportunity to apply theoretical concepts and implement safe client care in a variety of settings. **Pre-requisites:** NU 330; NU330L; NU 331; NU 331L; NU 332; NU 333. **Co-Requisites:** NU 334; NU 335L; NU 336; NU 336L; NU 337; NU 337L.

NU 335L 0-6-2 Nursing Care of Clients Experiencing Common Health Problems Lab: This course focuses on clinical experiences that allow the student the opportunity to apply theoretical concepts while implementing safe client care in a variety of settings. Students will care for clients with common health alterations across the lifespan that require medical and/or surgical intervention. Concepts of client centered care, teamwork and collaboration, evidence based practice, quality improvement, safety, informatics, leadership, communication, systems based practice and professionalism are integrated throughout the clinical course. **Pre-requisites:** NU 330; NU330L; NU 331; NU 331L; NU 332; NU 333 **Co-Requisites:** NU 334; NU 335; NU 336; NU 336L; NU 337; NU 337L.

NU 336 3-0-3 Health Promotion and Disease Prevention in Communities and Populations: This course is intended to introduce students to nursing care of individuals, families, aggregates, communities, and populations. Principles and practices of community health are discussed. Emphasis is placed on assessing factors that influence the health of populations and the use of evidence-based practices in the delivery of spiritually and culturally appropriate health promotion and disease prevention interventions. **Pre-requisites:** NU330; NU330L; NU331; NU331L; N332; NU333; **Co-Requisites:** NU334; NU335; NU335L; NU336L; NU337; NU337L.

NU 336L 0-3-1 Health Promotion and Disease Prevention in Communities and Populations Lab: The focus of this course is to provide students the opportunity to apply the principles and practices of community health while providing nursing care of individuals, families, aggregates, communities, and populations. Emphasis is placed on assessing factors that influence the health of populations and the use of evidence-based practices in the delivery of spiritually and culturally appropriate health promotion and disease prevention interventions. **Pre-requisites:** NU330; NU330L; NU331; NU331L; N332; NU333; **Co-Requisites:** NU334; NU335; NU335L; NU336; NU337; NU337L.

NU 337 2-0-2 Nursing Care of Clients Experiencing Psychosocial Alterations: This course focuses on the care of clients across the lifespan experiencing cognitive, mental and behavioral disorders. Emphasis is placed on management of clients facing emotional and psychological stressors as well as promoting and maintaining the mental health of individuals and families. Concepts of crisis intervention, therapeutic communication, anger management, and coping skills are integrated throughout the course. The community as a site for care and support services is addressed. Clinical experiences provide the student an opportunity to apply theoretical concepts and implement safe patient care to clients in selected mental health settings. **Pre-requisites:** NU330; NU330L; NU331; NU331L; N332; NU333; **Co-Requisites:** NU334; NU335; NU335L; NU336; NU336L; NU337L.

NU 337L 0-3-1 Nursing Care of Clients Experiencing Psychosocial Alterations Lab: This course provides students an opportunity to apply theoretical concepts and implement safe client care for real and simulated clients across the lifespan experiencing cognitive, mental and behavioral disorders. Emphasis is placed on management of clients facing emotional and psychological stressors as well as promoting and maintaining the mental health of individuals and families. Concepts of client-centered care, teamwork and collaboration, evidence-based practice, quality improvement, safety, informatics, leadership, communication, and systems-based practice, and professionalism are integrated throughout the course. **Pre-requisites:** NU 330; NU 330L; NU 331; NU 331L; NU 332; NU 333; **Co-requisites:** NU 334; NU 335; NU 335L; NU 336; NU 336L; NU 337.

NU 401 4-0-4 Nursing Care of Women, Children, and Families: This course provides an integrative, family-centered approach to the care of mothers, newborns, and children. Emphasis is placed on normal and high-risk pregnancies, normal growth and development, family dynamics, common pediatric disorders and the promotion of healthy behaviors in clients. Clinical experiences provide the student an opportunity to apply theoretical concepts and implement safe client care to mothers, newborns, and children in selected settings. **Pre-requisites:** NU 330; NU330L; NU 331; NU 331L; NU 332; NU 333; NU 334; NU 335L; NU 336; NU 336L; NU 337; NU 337L **Co-Requisites:** NU 401L; NU 402; NU 402L; NU 403.

NU 401L 0-6-2 Nursing Care of Women, Children, and Families Lab: This course emphasizes clinical experiences that provide the student an opportunity to apply an integrative, family-centered approach while implementing safe client care to mothers, newborns, children, and simulated clients in selected settings. Concepts of client centered care, teamwork and collaboration, evidence based practice, quality improvement, safety, informatics, leadership, communication, systems based practice and professionalism are integrated throughout the clinical course. **Pre-requisites:** NU 330; NU330L; NU 331; NU 331L; NU 332; NU 333; NU 334; NU 335L; NU 336; NU 336L; NU 337; NU 337L; **Co-Requisites:** NU 401; NU 402; NU 402L; NU 403.

NU 402 3-0-3 Nursing Care of Clients Experiencing Acute Health Alterations: This course focuses on the care of clients with acute health alterations across the lifespan that require medical and/or surgical intervention. Emphasis is placed on the care of clients with alterations in selected body functions. Concepts of client centered care, teamwork and collaboration, evidence based practice, quality improvement, safety, informatics, leadership, communication, systems based practice and professionalism are integrated throughout the course. Clinical experiences provide the student an opportunity to apply theoretical concepts and implement safe client care in a variety of settings. **Pre-requisites:** NU 330; NU330L; NU 331; NU 331L; NU 332; NU 333; NU 334; NU 335L; NU 336; NU 336L; NU 337; NU 337L; **Co-requisites:** NU 401; NU 402L; NU 403.

NU 402L 0-9-3 Nursing Care of Clients Experiencing Acute Health Alterations Lab: This course focuses on clinical experiences that provide the student an opportunity to apply theoretical concepts to the care of clients with acute health alterations across the lifespan in a variety of settings. Emphasis is placed on the care of clients with alterations in selected body functions that require medical and/or surgical intervention. Concepts of client centered care, teamwork and collaboration, evidence based practice, quality improvement, safety, informatics, leadership, communication, systems based practice and professionalism are integrated throughout the course. **Pre-requisites:** NU 330; NU330L; NU 331; NU 331L; NU 332; NU 333; NU 334; NU 335L; NU 336; NU 336L; NU 337; NU 337L; **Co-requisites:** NU 401; NU 402; NU 403.

NU 403 3-0-3 Health Policy and Finance: This course is designed to provide an overview of basic health care financing mechanisms and political issues affecting health services. Underlying economic issues influencing social and health policy will be explored. **Pre-requisites:** NU 330; NU 330L; NU 331; NU 331L; NU 332; NU 333; NU 334; NU 335; NU 335L; NU 336; NU 336L; NU 337; NU 337L; **Co-requisites:** NU 401; NU 401L; NU 402; NU 402L.

NU 404 2-0-2 Transition to Professional Nursing Practice: This course facilitates the transition of the student to the role of a professional nurse in the microsystem of a work unit. Emphasis is placed on contemporary issues and management concepts, as well as developing the skills of delegation, conflict management, and leadership. Legal and ethical issues are discussed with a focus on personal accountability and responsibility. Standards of practice and the significance of functioning according to state regulations and statutes are analyzed. Clinical experiences provide the student the opportunity to apply theoretical concepts while functioning in a leadership role. **Pre-requisites:** NU 330; NU 330L; NU 331; NU 331L; NU 332; NU 333; NU 334; NU 335; NU 335L; NU 336; NU 336L; NU 337; NU 337L; NU401; NU 401L; NU 401; NU 402L; NU 403; **Co-requisites:** NU 404L; NU 405; NU 405L; NU 406.

NU 404L 0-9-3 Transition to Professional Nursing Practice Lab: The purpose of this course is to provide the student the opportunity to function as a contributing member of the interprofessional team and collectively apply the knowledge and practice the skills acquired in previous courses. Students will be given the opportunity to provide care to a caseload of patients that is safe, evidence-based, patient-centered, and focused on promoting positive patient outcomes. Emphasis is placed on demonstration of professional behaviors, communication that supports information exchange, collaboration and conflict mediation, ethical comportment and the ability to effectively use leadership skills. (NOTE: This course only has Clinical Objectives because it is a clinical-only course) **Pre-requisites:** NU 330; NU 330L; NU 331; NU 331L; NU 332; NU 333; NU 334; NU 335; NU 335L; NU 336; NU 336L; NU 337; NU 337L; NU 401; NU 401L; NU 402; NU 402L; NU 403; **Co-requisites:** NU 404; NU 405; NU 405L; NU 406.

NU 405 4-0-4 Nursing Care of Clients Experiencing Complex Health Alterations: This course focuses on advanced concepts of nursing care as they relate to clients across the lifespan with complex health alterations. Emphasis is placed on implementing time management and organizational skills while managing the care of clients with multiple needs and collaborating with the interdisciplinary team. Complex clinical skills, as well as priority setting, clinical judgment, and tenets of legal and ethical practice, are integrated throughout the course. Clinical experiences provide the student an opportunity to apply theoretical concepts and implement safe care to clients in a variety of settings. **Pre-requisites:** NU 330; NU330L; NU 331; NU 331L; NU 332; NU 333 ; NU 334;NU 335; NU 335L; NU 336; NU 336L; NU 337; NU 337L NU 401; NU 401L; NU 402; NU 402L; NU 403; **Co-requisites:** NU 404; NU 404L; NU 405L; NU 406.

NU 405L 0-6-2 Nursing Care of Clients Experiencing Complex Health Alterations Lab: This course focuses on clinical experiences that provide the student an opportunity to apply theoretical concepts of nursing care as they relate to clients across the lifespan with complex health alterations. Emphasis is placed on implementing time management and organizational skills while managing the care of clients with multiple needs and collaborating with the interdisciplinary team. Complex clinical skills, as well as priority setting, clinical judgment, and tenets of legal and ethical practice, are integrated throughout the course. **Pre-requisites:** NU 330; NU330L; NU 331; NU 331L; NU 332; NU 333; NU 334; NU 335; NU 335L; NU 336; NU 336L; NU 337; NU 337L NU 401; NU 401L; NU 402; NU 402L; NU 403; **Co-requisites:** NU 404; NU 404L; NU 405; NU 406.

NU 406 4-0-4 Preparation for Professional Licensure: This course is designed to prepare the student for success on the NCLEX-RN licensure exam. Emphasis is placed on individual assessment, remediation, and test-taking strategies. Design of the NCLEX-RN exam, registration processes, and recommendations for test preparation are included in the course. **Pre-requisites:** NU 330; NU 330L; NU 331; NU 331L; NU 332; NU 333; NU 334; NU 335; NU 335L; NU 336; NU 336L; NU 337; NU 337L; NU401; NU 401L; NU 401; NU 402L; NU 403; **Co-requisites:** NU 404; NU 404L; NU 405; NU 405L.

NU 422OL 3-0-3 Health Assessment: This course provides the framework for preparing students to perform comprehensive health assessments on clients across the lifespan. Emphasis is placed on taking a thorough nursing history, performing physiological, psychological, sociological, cultural, and spiritual assessments, as well as identification of stressors and health risks. **Pre-requisite:** Admission to the BSN program. **Co-requisites:** NU422LOL; NU331; NU431OL; NU432OL; NU433OL, NU434OL.

NU 422LOL 0-3-1 Health Assessment Lab: This course provides the framework for preparing students to perform comprehensive health assessments on clients across the lifespan. Laboratory experiences provide an opportunity to practice assessment skills on clients across the lifespan in a variety of settings. **Pre-requisite:** Admission to the BSN program. **Co-requisites:** NU422OL; NU431OL; NU432OL; NU433OL; NU434OL.

NU 431OL 4-0-4 Introduction to Scholarly Writing: The purpose of this course is to develop and refine the knowledge and skills needed to read and critically analyze scholarly texts, write papers of increasing complexity, and practice stages of the writing process. Students are introduced to principles of effective written communication and critical reading, with a focus on creating, revising, editing, and on the self-assessment of written scholarly work. This course also focuses on application of the American Psychological Association (APA) format and style basic rules for citing and quoting materials. **Pre-requisite:** Admission to the BSN program. **Co-requisites:** NU422OL; NU422LOL; NU432OL; NU433OL, NU434OL.

NU 432OL 3-0-3 Pathophysiology: This course focuses on the altered processes of human physiology. An emphasis is placed on exploring changes of biological process of the body and the effects on homeostasis. Alterations of health problems are studied along with the associated clinical manifestations and treatments. Admission to BSN Program. **Co-Requisites:** NU 422OL; NU 422LOL; NU 431OL; NU 433OLL; NU 434OL.

NU 433OL 3-0-3 Research I: This course is designed to promote clinical decision making, based on evidence, through the exploration and integration of current scientific evidence, use of clinical reasoning, identification of client preferences, and assessment of available resources. Focus is placed on the analysis and synthesis of evidence to answer a clinical question relevant to nursing practice and client centered care. **Pre-requisite:** Admission to the BSN program. **Co-requisites:** NU422LOL; NU431OL; NU432OL; NU434OL.

NU 434OL 3-0-3 Enhancement of The Professional Role: This course is designed to enhance the role of a professional nurse in the microsystem of a work unit. Emphasis is placed on contemporary issues and management concepts, as well as developing the skills of delegation, conflict management, and leadership. Legal and ethical issues are discussed with a focus on personal accountability and responsibility. Standards of practice and the significance of functioning according to state regulations and statutes are analyzed. **Pre-requisite:** Admission to the RN to BSN Program. **Co-Requisites:** NU422OL; NU3422LOL; NU431OL; NU431LOL; N432OL; NU433OL.

NU 436OL 3-0-3 Nursing Care of Communities and Populations: This course is intended to introduce students to nursing care of individuals, families, aggregates, communities, and populations. Principles and practices of community health are discussed. Emphasis is placed on assessing factors that influence the health of populations and the use of evidence-based practices in the delivery of spiritually and culturally appropriate health promotion and disease prevention interventions. **Pre-requisites:** NU422OL; NU3422LOL; NU431OL; NU431LOL; N432OL; NU433OL; NU 434OL; **Co-Requisites:** NU436OL; NU437OL; NU438OL; NU438LOL; NU439OL.

NU 436LOL 0-3-1 Nursing Care of Communities and Populations Lab: This focus of this course is to provide students the opportunity to apply the principles and practices of community health while providing nursing care of individuals, families, aggregates, communities, and populations. Emphasis is placed on assessing factors that influence the health of populations and the use of evidence-based practices in the delivery of spiritually and culturally appropriate health promotion and disease prevention interventions. **Pre-requisites:** NU422OL; NU3422LOL; NU431OL; NU431LOL; N432OL; NU433OL; NU 434OL; **Co-Requisites:** NU436OL; NU437OL; NU438OL; NU438LOL; NU439OL.

NU 437OL 4-0-4 Research II: This course is a continuation of NU 433OL (Research I) which is designed to promote clinical decision making, based on evidence, through the exploration and integration of current scientific evidence, use of clinical reasoning, identification of client preferences, and assessment of available resources. Focus is placed on the analysis and synthesis of evidence to answer a clinical question relevant to nursing practice and client centered care.

NU 438OL 5-0-5 Nursing Leadership and Management: This course focuses on the knowledge and skills needed to be a nursing leader who can function as a contributing member of the interprofessional team. The development of transformational leadership skills and management techniques needed to coordinate the provision of safe, quality patient-centered care are highlighted.

Emphasis is placed on professional behaviors, communication that supports information exchange, collaboration and conflict mediation, ethical comportment and the establishment and provision of evidence based practice. **Pre-requisites:** NU422OL; NU3422LOL; NU431OL; NU431LOL; N432OL; NU433OL; NU 434OL; **Co-Requisites:** NU436OL; NU436LOL; NU437OL; NU438LOL; NU439OL.

NU 438LOL 0-3-1 Nursing Leadership and Management Lab: This focus of this course is to provide students the opportunity to apply the principles and practices of transformational leadership skills and management techniques needed to coordinate the provision of safe, quality patient-centered care are highlighted. Emphasis is placed on professional behaviors, communication that supports information exchange, collaboration and conflict mediation, ethical comportment and the establishment and provision of evidence based practice. **Pre-requisites:** NU422OL; NU3422LOL; NU431OL; NU431LOL; N432OL; NU433OL; NU 434OL; **Co-Requisites:** NU436OL; NU436LOL; NU437OL; NU438OL; NU439OL.

NU 439OL 3-0-3 Healthcare Policy and Finance: This course is designed to provide an overview of basic health care financing mechanisms and political issues affecting health services. Underlying economic issues influencing social and health policy will be explored. **Pre-requisites:** NU422OL; NU3422LOL; NU431OL; NU431LOL; N432OL; NU433OL; NU 434OL; **Co-Requisites:** NU436OL; NU 436LOL; NU437OL; NU438OL; NU438LOL.

Physical Education Courses

PE 101-109: These courses attempt to increase cardiovascular and musculoskeletal fitness; to encourage sociability, cooperation, and teamwork; to improve organic and neuromuscular functioning; to provide knowledge on the history, rules and regulations, and equipment; and to provide an opportunity to learn and execute skills. The overall intent of these courses is to instill an understanding and an appreciation of the importance of establishing a positive attitude toward a frequent habit of regular participation in a lifetime of wholesome, healthful activity. PE 101, PE 102, PE 103, PE 104, PE 105, PE 106, PE 107, PE 108, PE 109.

PE 110 1-0-1 Physical Education: Restricted: This course meets the special needs and abilities of students who are atypical and are unable to participate in regular physical education activity courses.

PE 111 Physical Education: Restricted: Continuation of PE 110.

PE 122 3-0-3 Health: The course encompasses the basis nutritional health concepts and principles; provides the basis for wholesome family life relations; reveals the nature and scope of mental health problems; supplies knowledge on the effects of alcohol, tobacco, and narcotics on the human body; and presents the basis for control of communicable and noncommunicable diseases.

PE 201 1-0-1 Physical Education Activity: A continuation of PE 101.

PE 202 1-01 Bowling and Archery: A continuation of PE 102.

PE 203 1-0-1 Tennis, Badminton and Table Tennis: A continuation of PE 103.

PE 204 1-0-1 Self-Testing, Tumbling and Gymnastics: A continuation of PE 104.

PE 205 1-0-1 Swimming I (Advanced): A continuation of PE 105.

PE 206 1-0-1 Soccer and Volleyball: A continuation of PE 106.

PE 207 1-0-1 Basketball and Soccer: A continuation of PE 107.

PE 208 1-0-1 Combative and Self-Defense: A continuation of PE 108.

PE 209 1-0-1 Jogging, Track, and Field and Handball: A continuation of PE 109.

PE 210 1-0-1: Continuation of PE 110.

PE 211 1-0-1: Continuation of PE 111.

PE 224 3-0-3 Leisure Crafts: The course reveals the foundations and activities of leisure crafts. The instruction focuses on art, design, color, sculpture, crayons and oil pastels, crafts, matting and framing. Primary emphasis is placed on printing and stencils, masks and puppets, lettering and calligraphy, and resources.

PE 226 3-0-3 Consumer Health: The basis of this course is the revelation of consumer health issues - separating fact from fiction, and identifying frauds and quackeries. Advertising and other promotional activities, mental and behavioral health, and dental care are topics subjected to study in this course. The course also examines the basic nutritional concepts and self-care, communication and sexuality, protecting oneself from infectious diseases, consumerism, complementary and alternative medicine and the health-care system, and governmental laws, agencies, and strategies.

PE 237 2-0-3 Elementary Dance: The course examines the history and basic concepts of a variety of cultural, traditional, and contemporary dances, explains and demonstrates the dynamics of warm-up and floor-work exercises from different types of music, illustrates the fundamental movement of which basic dance steps are made, exposes the origins of folk and square dance as they have developed in specific cultures, and teaches how the fundamental patterns of movement and creativity can be infused in dance.

PE 238 3-0-3 Intermediate Dance: The course requires 10 hours of field-based experience; it teaches sufficient verbal and motor skills in the techniques of rhythms to enable adequate execution and demonstration of such techniques when teaching them; it defines and exposes the correct form of steps, figures, terms, formations, and positions used in various intermediate dances; and it presents strategies designed to enhance students enjoyment of dance.

PE 245 2-0-3 First Aid and Safety: The course teaches the proper application of mouth-to-mouth resuscitation, the correct execution in rescuing a victim, and the appropriate methods in responding to any emergency requiring knowledgeable first aid action and care. It examines the diagnoses, signs and symptoms, care and treatment of various types of fractures, injuries, wounds, burns, poisons, and the like that might occur in medical emergencies. Also, the content of this course supports the standards according to Red Cross.

PE 327 3-0-3 Coaching and Officiating Individual and Team Sports: The course encompasses the acquisition of the rules, regulations, skills, and knowledge of coaching and officiating individual and team sports. It discusses the theories, principles, strategies, and techniques of coaching these sports and discusses the organization of officiating and the different officiating mechanics, signaling, and techniques associated with these sports.

PE 328 3-0-3 Motor Development and Movement Education: The course examines the varying theories and models of development and movement. It reveals the different factors that influence the various stages of development and movement and asserts how and why development and movement occur in different developmental segments. And it explores development and movement as a continuous process beginning at conception to death.

PE 335 3-0-3 Methods and Materials in Physical Education Elementary: The course includes the investigation, recognition, instruction, adaptation, and application for teaching physical education for learning on the elementary level. Unit and lesson plans, methods, materials, goals, objectives, contents, aids, and evaluations involved in teaching elementary Physical Education are integral components examined in the course.

PE 336 3-0-3 History and Principles of Physical Education: The course is a study of the historical development of organized physical activity and designed to improve the understanding and appreciation of the purpose, value, nature, scope and significance of exercise and sport.

PE 345 3-0-3 Methods and Materials in Health Education Elementary: The course includes the investigation, recognition, instruction, adaptation, and application for teaching Health education on the elementary level. Unit and lesson plans, methods, materials, goals, objectives, contents, aids, and evaluations involved in teaching elementary health are integral components examined in the course.

PE 346 3-0-3 Methods and Materials in Physical Education Secondary: The course analyzes the main purpose of physical education, technology in physical education, adolescents and physical activity, and adolescent growth and development. Significant attention is on effective and reflective teaching, teaching styles in physical education, creating a positive learning environment, developing curriculum, planning units and lesson plans, assessment and grading, and legal issues associated with teaching physical education for learning.

PE 356 3-0-3 Measurement and Evaluation of Physical Education: The course provides measurement, evaluation, assessment, and statistical techniques for determining the efficacy of instruction, the achievement of student learning outcomes, and the degree of knowledge learned in health and physical education. Further stress is on the construction of knowledge tests, how to test for health-related fitness and motor fitness, how to execute anthropometric measurements and calculate body composition, and how to use the microcomputer in testing measuring and evaluating.

PE 400 303 Human Sexuality: The course examines the psychological, physiological, and behavioral aspects of human sexuality, with particular emphasis on the influence of popular culture on these dimensions.

PE 417 1-0-3 Teaching Practicum: The course facilitates the gradual introduction of majors under the close supervision of the coordinator into the duties and responsibilities of a health educator or a physical educator. It encompasses organizing classes, organizing and selecting teaching materials, the development of lesson plans, and the actual teaching of courses and/or physical activities.

PE 423 3-0-3 Communicable and Non-Communicable Diseases: The course provides a comprehensive study of diseases and their individual etiologies, path-physiologies, diagnosis, prognosis, and treatments in modern day society.

PE 425 3-0-3 Organization and Administration of Health and Safety: The course offers principles and techniques for organizing and administering health and safety programs. Major emphases are given to liability or tort law, facility management, health promotion and care, personnel and administrative accountability and leadership.

PE 427 3-0-3 Organization and Administration of Physical Education: The course analyzes the nature of administration and management in sport and physical education, management functions in physical education and sport, communication and motivation in sport management and physical education, and human resources in sport management and physical education. Also, it focuses on public relations, partnerships, marketing, and promotion in sport management and physical education, financial management in physical education and sport, purchasing, maintenance, and security management in sport and physical education, and law, facility and equipment planning, designing, and management in physical education and sport.

PE 435 3-0-3 Physiology of Exercise: The course examines physiology of exercise in the United States, its past and its future and examines the control of the internal environment of the body and bio-energetics. Exercise metabolism, hormonal responses to exercise, the nervous system: structure and control of movement; skeletal muscle: structure and function; circulatory responses to exercise; and respiration during exercise are the chief emphases of this course.

PE 438 3-0-3 School and Community Health: This course focuses on school, social, behavioral, and environmental community health-related issues and the controversies that surround them.

PE 467 3-0-3 Adapted Physical Education: This course provides information on the meaning and importance of adapted physical education, identifies developmental delays or arrested stages of performance that hinder a child's ability to be successful in executing a given task, explains the operation and management of a program for the disability, and discusses the federal and state laws that govern the education of students with disabilities. Additional instruction is on identifying the different kinds of disabilities that are associated with the disabled and is on how to adapt the teaching of knowledge, skills, games, activities, and sports based on such disabilities.

PE 468 3-0-3 Kinesiology: The course investigates the history of kinesiology, the framework and composition of the body, the structure and function of the skeletal system, and the physiology of muscle contraction. Further study is on the neurological implication of motor control, analysis and assessment of human movement, and principles of training and development. **Pre-requisite:** BI 335.

PE 491 (1-3)-0-(1-3) Independent Study: The course provides an opportunity for students to address issues, problems, trends, and challenges in physical education, recreation, or sport management by engaging in the basic research process. It exposes students to the fundamental components, strategies, techniques, and literature that are essential in facilitating their researching the topic, executing the processes of the research project, and producing a quality research document. Major emphasis of the course are on writing syntax in research; identifying library and internet resources; understanding, executing, and adapting the various mechanisms of the library and internet searches, and interacting with the multi-knowledge bases associated with the world of research.

PE 492 (1-3)-0-(1-3) Independent Study (Honors): A continuation of PE 491

Psychology Courses

PH 132 3-0-3 General Psychology: This course is an introduction to the basic research and theory of psychology. The course focuses on the application of psychological concepts and principles to the understanding of human behavior and cognitive processes.

PH 192 3-0-3 Honors General Psychology: Honors General Psychology surveys the research and theories of modern psychology including history of the field, research methods, learning and memory, motivation and emotion, personality, psychopathology, social psychology, sensation and perception, human development, language, psychotherapy, and health psychology. As an honors course, emphasis is placed critical analysis of psychological issues and the potential for enhancement of human life through the application of psychological principles.

PH 230 3-0-3 Learning: This is an introduction to theory and research in the area of learning. **Pre-requisite:** PH 132.

PH 231 3-0-3 Motivation: This is an introduction to theory and research on the psychological and biological bases of motivation. **Pre-requisite:** PH 132.

PH 315 3-0-3 Seminar on Black Psychology: This course focuses on the academic origin and evolution of black psychology and major contributors to the field of psychology. Special attention will be directed to philosophical, behavioral, socio-cultural, economic, political, historical, educational, and theoretical perspectives on African-centric consciousness. **Pre-requisite:** PH 132 or SY 235.

PH 319 3-2-2 Computer Applications in Psychology: This course covers the applications of computer technology in psychology. **Pre-requisites:** PH 132, CS 100.

PH 320 3-0-3 Developmental Psychology: This is a survey of the changes that occur in human development from conception to death, with emphasis on the psychological events that accompany these changes. **Pre-requisite:** PH 132.

PH 323 3-0-3 Child Psychology: This course examines the physical, social, emotional, mental, and value development of the child from infancy to the pre-adolescent period. **Pre-requisite:** PH 132.

PH 325 3-0-3 Adolescent Psychology: This course examines the physical, emotional, cognitive, and social aspects of development during adolescence. **Pre-requisite:** PH 132.

PH 326 3-0-3 Psychology of the Exceptional Child: This course involves a detailed study of areas encompassing special education with attention paid to the study of each of the following: mental retardation, emotional disturbance, learning disabilities, and sensory impairments, the gifted and talented, and legal issues including Public Law-142. This course is required in any field of Special Education. This course is designed for the student majoring in Special Education.

PH 330 3-0-3 Theories of Personality: This is an introduction to theories of the structure, dynamics, and development of personality. Also, research methods in personality and contemporary issues in personality research are emphasized. **Pre-requisite:** PH 132.

PH 332 3-0-3 Psychological Testing: This is an introduction to theory, construction, use, and interpretation of psychological tests. The course focuses on tests of intelligence, personality, interests, and aptitudes. **Pre-requisites:** PH 132 and PH 365 or its equivalent.

PH 334 3-0-3 Ethics: This course introduces students to values and professional issues in psychology, with an emphasis on ethics. Students will learn to recognize the importance of ethical behavior in all aspects of science and practice of psychology and that sociocultural factors and personal biases may shape research and practice. Through lectures, readings, discussion, debate, activities, and examination of case studies, students will be introduced to ethical dilemmas from all aspects of science and practice of psychology.

PH 336 3-0-3 Educational Psychology: This course is designed for teachers and individuals who are concerned with directing and influencing personality development and learning in human beings. It is hoped that they will be able to apply the principles of psychology to education and the teaching-learning process. **Pre-requisite:** PH 132.

PH 340 3-0-3 Cognition: Cognitive psychology is the study of all human intellectual functions. As such, study will concern the principles of human mental operations and human information processing. Subtopics surveyed will include sensation and perception, attention, memory, thinking, language, problem solving, decision-making, and knowledge structures. Basic research will be surveyed with concern for possible applications in such areas as education, human-machine interaction, language learning, and medicine. **Pre-requisite:** PH 132.

PH 347 3-0-3 Measurement and Evaluation: This course emphasizes methods designed for the measurement of intelligence and the evaluation of achievement. Students learn to improve teacher-made examinations and receive guidance in constructing, selecting, using, and interpreting educational tests. **Pre-requisite:** PH 132.

PH 365 3-0-3 Behavioral Statistics: An introduction to research design and quantitative analysis as applied to psychological data. Students enrolled in the course are expected to become proficient in the organization, analysis, and interpretation of research data using fundamental descriptive and inferential statistics. **Pre-requisite:** PH 132.

PH 401 1-6 Psychology Colloquium: This is an opportunity for advanced students to pursue a research project or field experience under the supervision of a faculty member. Enrollment is limited to advanced students and permission of the supervising faculty member is required. **Pre-requisites:** PH 132, PH 365, PH 470.

PH 402 3-0-3 Community Mental Health Management: This course is designed to provide practical experience in community mental health programs. Emphasis is placed on case management procedures, administrative practices, interviewing techniques, methods of therapy, psychological record-keeping, and report writing. **Pre-requisites:** PH 132, PH 332, PH 471.

PH 403 3-0-3 History and Systems of Psychology: This course is an examination of the origin and evolution of the philosophical and scientific treatments of psychological issues. The emphasis of the course is on the contributions of early philosophical, theoretical, and experimental schools of psychology to modern psychology. **Pre-requisite:** PH 132.

PH 407 3-0-3 Physiological Psychology: This course examines the structural and functional relationships between biological systems and behavior. Emphasis is placed on the nervous system, sensory-motor processes, motivational mechanisms, sexual behavior, sleep and arousal, learning and memory, stress, abnormal behavior, thought, and language. **Pre-requisites:** PH 132, BI 111.

PH 420 3-0-3 Industrial and Organizational Psychology: This course is an introduction to the study of human behavior in workplace and in the marketplace. The course focuses on the selection and training of employees, improving working conditions and productivity, conflict management, and market research. **Pre-requisites:** PH 132, PH 332, PH 440 or SY 330.

PH 440 3-0-3 Group Dynamics: This course is the examination of small group behavior through a review of research, film, and experiential learning. Group formation, communication within the group, establishment of group norms, the role of leadership, and the mechanisms of member influence are discussed. Group models such as adolescent peer pressure, workplace units, and jury deliberations are used to illustrate these processes. **Pre-requisite:** PH 132.

PH 465 3-0-3 Advanced Behavioral Statistics: This course instructs students in the uses of factorial ANOVAs, multiple regression, and multivariate statistics for the analysis and interpretation of data. **Pre-requisites:** PH 132, PH 365, and at least 12 hours of psychology course work.

PH 470 2-2-3 Experimental Psychology: This is an introduction to experimental methodology in psychology. The principles of scientific investigation and research design are applied to psychological problems. The laboratory portion of the course includes opportunities for students to conduct experiments in psychology. **Pre-requisites:** PH 132, PH 365.

PH 471 3-0-3 Abnormal Psychology: This is an examination of research and theory dealing with the etiology, symptomatology, and treatment of abnormalities of behavior. **Pre-requisites:** PH 132, PH 330, PH 365 or its equivalent.

PH 483 1-2-3 Psychology Internship: This course provides students with field experiences under the supervision of professional mental health workers. The experiences allow students to observe and participate in the diagnosis and care of individuals experiencing behavioral and emotional difficulties. **Pre-requisites:** PH 132, PH 320, PH 332, PH 471.

PH 490 3-0-3 Senior Seminar in Selected Topics: Each seminar will focus on a central topic in psychology and provide students with an opportunity to apply and integrate knowledge and skills acquired from various courses in the study of that topic. **Pre-requisite:** Senior standing in psychology.

Plant and Social Science Program Plan Courses

PS 122 3-0-3 Crop Production: This course deals with the study of agronomic and horticultural crop production. Provides students with an understanding of the basic principles of field crop production – tillage, soil testing, fertilization, variety selection, planting, and in-season crop management. The lecture classes cover studies on soil management, fertilizer application, cultivation, agronomic practices, harvesting, and “model” crops will be discussed to assist students in preparing for a career in agriculture or the agricultural sciences.

PS 122L 1-0-3 Crop Production Lab: This laboratory covers practical training in lab, greenhouse, and field. The crop fields include vegetable plots, vineyards, orchards, and nut plantations. Lab activities include organic and non-organic production of major vegetable crops. Students will learn basic production techniques and cultural practices used for horticultural crop production including principles and practices involved in the propagation of horticultural plants, fruit crop establishment and management, and cultural requirements essential to successful vegetable cropping.

PS 205 3-0-3 Principles of Genetics: This introductory genetic course covers classical Mendelian genetics, extension of Mendelism, gene structure, function, and regulation, gene mutations and effect on gene function, synthesis and duplication of genetic materials, population genetics and evolution, genetic screening and gene therapy.

PS 220 3-0-3 Principles of Cell and Tissue Culture: This course presents an overview of the techniques and underlying theory of plant tissue culture and genetic engineering, research and commercial applications. The course is designed to provide knowledge of the basic principles and application of tissue, cell and protoplast culture, recombinant DNA technology and genetic transformation of plants and their application to plant improvement.

PS 221L 3-0-3 Principles of Cell and Tissue Culture Lab: This course should be taken concurrently with PS220 “Principles of Cell & Tissue Culture”. This laboratory intensive course will expose students to laboratory cell and tissue culture equipment and techniques; Callus induction and cell suspension culture; plant genetic transformation experiment design and practices.

PS 242 3-0-3 Wood Products: This course explains the industrial materials formulated from harvested trees in the forest (s). Many wood industries assumed strange roles that produced the products that are household names today. This course will relate the history of the wood products we use in today’s market.

PS 257 3-0-3 Wood Science and Technology: This course utilizes the industrial techniques to characterize wood properties and the chemical structure of wood in the manufacturing process; the fundamentals of wood mechanics including concepts of stress, strain, bending, and effects of moisture on mechanical properties. This course explains the application of techniques to production planning, inventory management, quality, human resources management, and technology.

PS 257L Wood Science and Technology Lab: The aim of this course is to better understand how the management of forests and the assessment of wood properties and research into the factors that affect the properties of wood and ways of improving the performance of analyses of wood substances.

PS 270 3-0-3 Environmental Ecology: This course introduces the principles of ecology and their implications for analyzing environmental problems. Attention will focus on understanding the processes controlling the dynamics of populations, communities and ecosystems. Specific examples will emphasize the application of these concepts to the management of natural resources and environmental stressors associated with human activities.

PS 300 3-0-3 General Bioethics: Ethics is the study of how we ought to live. In this course, we will study the ethical issues involving biotechnology. We hear about euthanasia, abortion, genes, genomes, and health care in the news almost nightly. The ethical issues that accompany these new technologies are enormous, and force us to reexamine what words like person, death, fair, right, and consciousness mean. These issues cluster roughly around five concepts: reproduction and birth, death, genetics, healthcare, and the role of the physician. We will examine these issues from as many angles as possible and identify the moral issues raised by each and generate arguments for or against each position.

PS 305 3-0-3 Plant Development and Physiology: With the growing human population, it is a huge challenge to meet the food requirements of the future generations. Achieving the food security depends on the successful cultivation and obtaining best crop yields. To achieve greater yields in-depth understanding of crop physiology and growth regulation are vital. This course will introduce the fundamentals of crop physiology and plant growth regulation. Specifically, the course deals with the architecture of plant cell, photosynthesis, metabolism of macro molecules, secondary metabolites and plant hormones.

PS 315 2-2-3 Soils: This foundational course introduces students to a broad disciplines of soil science. Study soil formation, composition and a range of soil characteristics that seek to understand their relationship to soil function, land use, plant growth, and environmental quality. Identify the physical, chemical, and biological properties and processes of soils and relate these to soil function. Students acquire a working knowledge of the technical terminology of soil science and begin developing application skills that can be applied in environmental and natural resource management careers. Students also evaluate the impact of land use and management decisions on agricultural productivity, sustainability, and environmental health.

PS 315L 2-2-3 Soils Lab: This laboratory course is designed for students who plan to work directly with soils, make land use and management decisions, or to be involved in projects requiring practical application of soil science. By conducting weekly laboratory and field exercises and writing reports on their work, students will deepen their understanding and learn to apply, the fundamental soil properties and processes. This laboratory course, in conjunction with the SOILS 315 lecture course, will provide foundational learning in soil science and prepare students for upper level soil science courses. This laboratory course is also designed to provide students with hands on experience in analytical procedures for soil assessment, testing, and interpretation.

PS 316 3-2-4 General Horticulture: An introduction to the principles and practices in the development, principles and practices applied to production and preservation of fruits and vegetables. Includes the classification, structure, growth and development, and environmental influences on horticultural plants. Additionally, we will identify emerging issues in horticulture and encourage robust discussion.

PS 320 3-0-3 Biomass and Bioenergy: The overall objective of the course is to introduce the concept of renewable energy and sustainability. The course will focus on opportunities of renewable resources and their utilization for energy production. The bioenergy will focus on past present and future potential. A brief history of bioenergy and bioproduct development. Recent developments in bioenergy such as biomass feedstock selection, bioprocess development, genetic engineering and socioeconomic impact. Policy and regulations in renewable energy specifically bioenergy. A lecture and laboratory model dissemination of knowledge. Students are asked to present a research relevant to the bioenergy and sustainability in groups.

PS 338 2-1-3 Major Crops in Mississippi: This course covers production practices of major commercial grain and forage crops (soybeans, rice, corn, field peas and cotton) grown in Mississippi. Areas of focus include the principles of classification, varieties used, production practices, harvesting, marketing and seed production will be discussed from the production and management points of view.

PS 345 2-2-3 Landscape Gardening: This course begins with the fundamentals of gardening, including how to create and care for all types of plants and flowers, then provides a thorough introduction on all aspects and techniques of professional landscaping. This course is designed to train students for landscape service; nursery management; propagating and planting; growing and transplanting of ornamental plants.

PS 346 3-0-3 General Entomology: Fundamentals of structure, function, biology and identification of different insect groups. Study of principles, concepts and components of insect pest management. Pest management program in specific crops. Develop an extension pest fact sheet for pests, types of damage incurred, their biology and behavior.

PS 346L General Entomology Lab: Laboratory exercises parallel topics presented in PS 346. The lab focuses on identifying common insects across all orders as well as developing skills in insect collecting, preservation, curation, and imaging.

PS 350 2-2-3 Forestry Taxonomy: The course will prepare you for practical tree identification in any environment through learning how to use taxonomic keys and exposure to terminology, family characteristics, and plant systematics. The course will require the student to learn common trees and the taxonomic system of classifying forest trees with emphasis on southern forests.

PS 350L Forestry Taxonomy Lab: Laboratory exercises parallel topics presented in PS 350. Laboratory exercises will focus on the taxonomy and identification methods relevant to tree of southern forests.

PS 351 2-3-3 Forestry: A course designed to acquaint students with taxonomic system of classifying forest trees with emphasis on southern forests and the relationship of humans to forest resources. Lectures will cover basics of plant taxonomy and dominant forest types typical of various regions of the U.S; with emphasis on the roles of the forester in manipulating the forest environment to produce goods and services desired by contemporary society will also be discussed.

PS 351L Forestry Lab: Laboratory exercises parallel topics presented in PS 351. The forestry lab provides students with hands-on application of forestry principles with or without having access to forest resources.

PS 353 2-3-3 Forestry Environment: A basic course on our environment emphasizing the relationship of forestry and the practical approaches required to assess the ecological condition of forests, which is necessary for forest management and conservation. This course will also explore the science, engineering, design, management and social science applied to regional, national, and global issues.

PS 354 3-0-3 Forest Pathology: The study of how insects and diseases destroy the forest will be discussed. The course will prepare the student to analyze the pathogens that can cause devastation to the forest which can prevent its good health. This course also will show how forestry is aimed at increasing yields of wood and fiber, and how insects, mammals, and disease destroy the economic value of the trees in the ecosystem. Disease is one of the slow processes that contribute to growth loss in trees. Types of tree diseases will be discussed and some factors that can be used to determine the mechanism which contributes to identification. The pathogens discussed will cover both abiotic and biotic. Finally, current studies in will be incorporated as discussion topics and scenarios to advance the knowledge of students in today's climate.

PS 358 3-0-3 Pest Management: An introduction to Integrated Pest Management (IPM): Concepts, principles, development and application of IPM. IPM constitutes a series of pest control tactics and strategies toward more sustainable agriculture, natural resources, and urban and rural health and well-being.

PS 360 1-4-3 Water Quality: This course examines the nature of point and non-point sources of surface and groundwater pollution, surveys the regulatory framework guiding water quality management activities in the U.S. It explains current approaches to water quality protection and enhancement and reviews the role of engineered treatment processes in water quality management.

PS 391 3-0-3 Concepts of Environment Science: This course is designed to provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the human manipulation of ecosystems. Focuses on a brief history of the environmental movement, environmental regulatory agencies, fundamental principles of resources and their use, population, conservation, and environmental health. This course creates awareness to the possible irreversible situations of the fragile world environment, with emphasis on conserving the competency of the environment while exploring the science behind environmental issues.

PS 401 2-3-3 Small Fruit Production: This course will prepare student to recognize small fruit establishment and culture, with emphasis on kinds, varieties, seeding practices, cultural practices, and harvesting methods. The student will explore tree, vine and small fruit crop physiology and relationships among crop physiological status, horticultural manipulation, cultural management, economic determinants and maximized production of superior products. The course highlights seeding practices and culture, with emphasis on decision-making positions within the fruit industry.

PS 401L Small Fruit Production Lab: Fruit crop production principles and practices, both locally and from a global perspective. Experience with planting, pruning and layout of orchard, vineyard and small fruit crops, greenhouse propagation, and production practices.

PS 403 3-0-3 Current Issues in Biotechnology: This course will deal with recent discoveries and concepts in biotechnology. The discussions will be focused on gene organization, gene transcription and translation; analysis and manipulation of genes and the applications of the biotechnology knowledge. Successful completion of this course material will enable the students to have a broad overview of molecular gene expression, and to undertake advanced study in any of the various sub-disciplines.

PS 418 2-2-3 Farm Forestry: This course will focus on how the principles, complexity and diversity of agroforestry systems enhance land productivity and sustainability. The principles of farm and woodland management including measurement of logs, trees and stands, planting and harvesting methods; illustration and protection; basic silvicultural principles. Emphasis will be on temperate zone agroforestry systems, in particular those suitable for, or having potential for, Mississippi. The social and economic benefits of such systems for farmers, communities and society will also be discussed.

PS 421 3-0-3 Wood Chemistry: The course discusses the chemistry of wood and its fundamentals and applications. The course will cover carbohydrate chemistry and the chemicals manufactured from wood. Chemistry and polymer properties of wood as well as the general structures, properties, and pertinent reactions of carbohydrates. It will also describe the structure and anatomy of wood. Emphasis will be placed on the major components of wood such as cellulose, hemicellulose, and lignin. Chemical processes such as wood pulping, pulp bleaching, cellulose derivatives, and wood-based chemicals and pulping by-products will give more depth to the chemical study of wood. A chapter on extractives will discuss the use of organic and inorganic chemicals obtained in the formations of heartwood components as well as bark.

PS 427 3-2-4 Farm and Home Beautification: This course deals with identification and description of ornamental plants materials, the care of lawns, landscape planting, plant propagation, establishment and care of lawns, and planning of the farm and home grounds. Topics include the farm fruit garden, vegetable garden, farm poultry, beautifying the home surroundings, the nutritive value of foods, cooking meats and vegetables, and educating the students on the farm literature for the farm home

PS 427L Farm and Home Beautification Lab: Laboratory exercises parallel topics presented in PS 351. Topics include the farm fruit garden, vegetable garden, farm poultry, beautifying the home surroundings, the nutritive value of foods, cooking meats and vegetables, and educating the students on the farm literature for the farm home.

PS 430 3-0-3 Concepts in Biotechnology: This course will provide a practical experience in the major techniques used in plant genetic analysis at the molecular and bioinformatic levels. It will teach students about all aspects of the biotechnology field. Topics will include the biology, cells, genes, DNA, proteins, genetic engineering, drug development, biofuels, agriculture, bioremediation, biotechnology company structure, and the regulations affecting the field. This course will increase the student's knowledge of major cellular and molecular concepts and techniques in molecular and cell biology.

PS 437 3-0-3 Soil Conservation and Land Use: Study the principles of soil conservation and land use with best management practices to improve soil functioning and protect the environment. The course will assess the importance of soil and water as natural resources for ecosystems and focus on developing methods for conservation and sustainable use of resources. Know the principles of soil erosion processes and management practices to decrease erosion in cropland, rangeland and urban systems. Understand the principles of the soil water cycle to improve water use efficiency in agricultural systems. Understand how to utilize soil resource assessment tools to make land management decisions. Examine the role of soil management in the mitigation and adaptation to climate change. Emphasis will also be given to proper land use based on land capability classes with reference to the State of Mississippi. Students will be required to develop a detailed soil conservation plan as a project for the class, that will contribute as part of the grade for the course.

PS 439 2-2-3 Soil Microbiology: This course is designed to investigate the effects of soil environments on microbial occurrence; importance of organic matter transformations, discharged nutrients, and environmental quality; and management of soil microorganisms in varied ecosystems.

PS 441 3-0-3 Introduction to Plant Pathology: This course will cover the basic concepts and principles of Plant Pathology. Students will study microorganisms that induce plant diseases, mechanisms and environmental conditions that stimulate plant disease, interactions between the disease-causing agents and methods of preventing, managing, or alleviating the damage of plant disease. Students will acquire an understanding of the perspectives and problem-solving processes used by Plant Pathologists.

PS 446 2-2-3 Soil Morphology and Classification: This course details principles, practices and applications of soil morphology such as: soil body and its development, site description and interpretation; The importance and application soil classification coupled with procedures in soil classification, special emphasis on soil classification systems and recent advances in soil classification; soil genesis and standard techniques to study soil profiles are covered.

PS 447 2-2-3 Forage Crops: This course focuses on major aspects of forage crop production, for example, selection, culture, handling, and preservation of forage crops, their relations to the livestock industry and maintenance of soil fertility. The course especially emphasizes characteristics of important grasses and legumes. Special attention will be given to hay and pasture problems in the South.

PS 448 3-0-3 Soil Management: Study principles of soil management under managed agricultural systems. Relationships of soil and climate resources to soil erosion, movement and storage of soil water, soil organic matter, and irrigation practice. Special problem topics such as acidity, alkali, drainage, and soil testing. The course is designed to acquaint the student with good soil management practices and soil analysis. Also, application of fundamental soil science principles in sustainable management of agricultural, forested, and urban ecosystems.

PS 449 2-2-3 Vegetable Production: This course is an introduction to vegetable crops and the theoretical knowledge and hands-on experience required for successfully producing them. This course is designed to demonstrate the practices and problems involved in production of the important fresh marketed and processed vegetable crops and provide the student with an applicable knowledge of successful vegetable production including the what, where, when and how of growing specific crops. Topics will include crop classification; planting methods; crop climatic conditions; physiological growth; and development; and pest management; organic production; cover cropping; crop rotation; postharvest handling/management and marketing. Field trips to areas devoted to commercial production constitute a part of the course. **Pre-requisite:** PS 316.

PS 457 3-0-3 Forest Management: This course discussed the long-term ecological outcomes of forest management activities, and management with ecological implications which assesses the combined effects of management plans.

Concepts of sustainability, the quantification and projection of ecological and wildlife outcomes from implementing forest management plans, and approaches to comprehensive analysis of multiple goals are also discussed in detail. The main focus of this course is to focus on the developing of analytical, quantitative ways of thinking about forest resource management problems. This course aids in the developments of decision makers and stakeholders comprehensive, quantitative estimates of the consequences of implementing alternative management or policy scenarios.

PS 458 3-0-3 GIS Applications in Natural Resources: The course emphasizes the application of geographic information systems (GIS) and techniques of remote sensing in natural resource management. It provides students with methods in acquisition, processing, and interpretation of the primary data derived from various sensors on a practical level.

PS 459 2-2-3 Soil Fertility: This course provides a comprehensive overview of the principles of soil fertility, plant nutrition, and nutrient management. Study soil conditions affecting availability of plant nutrients; function and movement of nutrients in plants, methods of determining nutrient levels in plants, soils, and other growing media. The course is focused on understanding nutrient cycling and nutrient behavior in soils, the essential plant nutrients and the role and function of nutrients in plants. Also, understand relationships between fertilizers, soils, and plant productivity and how these components dynamically interact to influence environmental quality.

PS 460 3-3-3 Watershed Hydrology: The objective of the course is to provide the student with an understanding of the concepts and practices in hydrology and watershed management. Concepts include the importance of the water budget, water flow and stream flow analyses, watershed hydrology, erosion and sedimentation, fluvial processes, water quality and corresponding environmental issues. This course will focus on watershed case studies, management practices, implications for socio-economics environmental policy, and decision-making.

PS 467 2-2-3 Forest Soil: This course explores the environmental influence on soil formation with greater emphasis on soil properties in a forest eco-system; Incorporates the importance on the morphological, physical, and chemical soil properties affecting tree growth and forest productivity and evaluation of soils.

PS 475 2-2-3 Plant Breeding: This course will serve as a general introduction to the principles of plant breeding and biotechnology. Principles, techniques, and practices in breeding improved varieties of crop plants. The course will examine concepts significant to students in plant breeding, genetics, biotechnology, crop sciences, and allied fields of plant pathology. The course content will present a comprehensive range of applicable information relating to modification and improvement of a wide range of crops, including both agronomic and horticultural crop species.

PS 478 1-0-1 Seminar Agriculture: A review and discussion of current topics in Crop Production and Soil Management. Students will report on and discuss recent literature and current investigations relative to the Crop Production and Soil Management and preparation of reports on selected topics.

PS 479 2-2-3 Special Problems in Plant and Soil Science: The student will select a problem of his/her major interest in crops or soils and solve it under the supervision of the instructor in the particular area. Emphasis on a selected topic within the student's area of interest. Choice of topic, must be made in consultation with the instructor prior to registration. A written report and an oral presentation of the topic studied may be required.

PS 480 3-0-3 Soil Chemistry: Study of chemical and mineralogical properties of soil components. Fundamental chemical properties of soils; nature and properties of soil colloids. Structures of soil minerals as a means of understanding properties, such as ion exchange and equilibria; release and supply of nutrient and toxic materials; and soil acidity and alkalinity. Also, theory and practice of soil chemical analyses commonly encountered in research and industrial settings.

PS 482 1-4-3 Weed Control: An introduction to the principles of weeds, weed control, and herbicides. This exploratory course in pest management and introduces the students to the weed concept and factors responsible for weed survival. It is meant to provide students with both theoretical and practical knowledge in weed control as a major component of Integrated Pest Management. The course focuses on principles of weed management, general methods of weed control including preventive, cultural, mechanical, biological, chemical, and biotechnological approach to weed management. Classification and chemistry of herbicides, their residual effects on the environment, methods of herbicide use, and safety precautions, and herbicide formulations.

PS 483 2-2-3 Environmental Science: This course presents the most current and relevant environmental science issues, research to identify and analyze, alternative solutions for resolving and/or preventing both natural and human-made environmental problems. This course focuses on the sequential activities of human activities by examining the quantifiable parameters such as the greenhouse gases, climate change, loss of agricultural land to erosion, the urban environment, and problems of population growth while expanding on sustainability and stewardship.

PS 484 1-4-3 Greenhouse Crops: The principles of greenhouse management including production and management problems of potted plants. This course offers an introduction to manipulating the greenhouse environment to grow plants. Coursework includes the identification of and specific requirements for growing plants commonly grown in greenhouses and shade structures.

PS 490 3-0-3 Research Methods: Students will learn the basic principles of research methodology. Emphasis will be placed on techniques used in identifying problems, forming hypotheses, constructing and using data-gathering instruments, designing research studies, and employing statistical procedures to analyze data.

PS 492 2-3-3 Microclimatology: This course is designed to address the principles of energy exchange and their application to near surface environments. Lectures will concentrate on problems in agriculture, forestry, hydrology and urban systems; physical mechanisms of flows of mass and energy between the atmosphere and the earth surface.

PS 493 1-4-3 Soil Physics: This course is designed to provide knowledge on soil physical properties and processes. It provides; a working knowledge of the methods and instrumentation used in evaluating soil physical properties, knowledge of the effects of soil physical conditions on plant growth and understanding of how soil physical processes may influence environmental quality. The course will explore the interaction of physical, chemical, and biological processes and properties of soils which influence the optimum growth of plants as well as the potential for groundwater and surface water contamination from agrochemicals. Emphasis will be given to basic concepts of transport and retention for water and solutes, and air and heat flow in the root zone of the soil profile.

PS 495 3-0-3 Experimental Design: Designed to explore the fundamental principles of experimental designs especially in relation to computation and analyses of biological research data. This course focuses on methodological and design issues in planning an experiment and analyzing the data with various statistics.

PS 497 3-0-3 Agricultural and Environmental Law: This course addresses chief issues and concerns of agricultural law, key concepts and principles relating to how the law has dealt and deals with agriculture. Emphasis will be placed on the U.S. legal system-major legal and regulatory development; common marketplace problems and their solutions.

Physical Science and Physics Courses

PY 111 2-2-3 Physical Science I: A course designed to give the student an appreciation of the natural phenomena of the physical world. Included are laws encountered in working with static's, motion, chemical combination, light, heat, gravity, gases, etc. a laboratory self-discovery approach is stressed.

PY 112 2-2-3 Physical Science II: Includes: study of atoms, nucleus, chemical elements and compounds, basic astronomy, atmosphere and structural geology. **Pre-requisite:** PY 111.

PY 215 3-0-3 General Physics (Non-Calculus): The study of fundamental principles of mechanics, heat, and sound. **Pre-requisite:** MA 121 or equivalent. **Co-requisite:** 215L.

PY 215L 0-2-1 General Physics Lab (Non-Calculus): A laboratory demonstrating key concepts of the course, hands on experience, and verifying the fundamental concepts. **Co-requisite:** PY 215.

PY 216 3-0-3 General Physics (Non-Calculus): The study of fundamental principles of light, electricity, and magnetism. **Pre-requisites:** PY 215, PY 215L. **Co-requisite:** PY 216L.

PY 216L 0-2-1 General Physics Lab (Non-Calculus): A laboratory demonstrating key concepts of the course, hands on experience, and verifying the fundamental concepts. **Co-requisite:** PY 216.

PY 217 3-0-3 General Physics (Calculus): Basic principles of physics with mathematical interpretation at the level of calculus. **Pre-requisite:** MA 181 or MA 182. **Co-requisite:** MA 225, PY 217L.

PY 217L 0-2-1 General Physics Lab (Calculus): A laboratory demonstrating key concepts of the course, hands on experience, and verifying the fundamental concepts. **Co-requisite:** PY 217.

PY 218 3-0-3 General Physics (Calculus): Basic principles of electricity, magnetism, and light using calculus.

PY 218L 0-2-1 General Physics Lab (Calculus): A laboratory demonstrating key concepts of the course, hands on experience, and verifying the fundamental concepts. **Co-requisite:** PY 218.

PY 221 2-0-2 Mechanics: Differential equation form of Newton's Laws; rotational motion; central forces, vibrational motion; selected problems in advanced mechanics. **Pre-requisites:** PY 218 and MA 348 or permission by instructor.

PY 222 2-0-2 Mechanics: Continuation of PY 221.

PY 223 2-0-2 Mathematics for Physics: Solution of equations important to the physical sciences. **Pre-requisites:** PY 218 and MA 226.

PY 224 2-0-2 Mathematics for Physics: Continuation of PY 223. **Pre-requisite:** PY 223.

PY 300 2-0-2 Thermodynamics: A study of the laws of thermodynamics with their applications including introductory statistical thermodynamics, properties, and temperature. **Pre-requisite:** PY 218 or permission by instructor.

PY 301 Thermodynamics II: A specialized treatise on the thermodynamics of solids, liquids and gases. **Pre-requisite:** PY 300.

PY 310 2-2-3 Geometric and Physical Optics: Refraction, optical instruments, coherence, interference, diffraction, and polarization. **Co-requisite:** PY 310L. **Pre-requisites:** PY 218, PY 218L.

PY 315 2-2-3 Intermediate Electricity and Magnetism Electromagnetic Theory Flight: Kirchoff's Laws, circuits with capacitance, resistance, and inductance calculations of capacitance and inductance from fields and potentials; dielectrics and ferromagnetic materials, magnetic force and induced EMF. **Pre-requisites:** PY 218, PY 218L or permission of instructor. **Co-requisite:** 315L.

PY 315L 0-2-1 Intermediate Electricity and Magnetism Lab: A laboratory demonstrating key concepts of the course, hands on experience, and verifying the fundamental concepts. **Pre-requisites:** PY 218, PY 218L. **Co-requisite:** PY 315.

PY 317 2-3-3 Electronics for Scientists: An introduction to electronics. To include components, transistors, diodes, amplifiers, operational amplifiers, detectors, transducers, control circuits, and applications. **Pre-requisites:** PY 218, PY 218L. **Co-requisite:** PY 317L.

PY 317L 0-2-1 Electronics for Scientists Lab: Laboratory demonstrating key concepts of the course, hands on experience, and verifying the fundamental concepts. **Pre-requisites:** PY 218, PY 218L. **Co-requisite:** PY 317.

PY 318 2-3-3 Analog and Digital Electronics: An introduction of digital techniques, logic circuits, and microprocessor interfacing. **Pre-requisites:** PY 317, PY 317L. **Co-requisite:** PY 318L.

PY 318L 0-2-1 Analog and Digital Electronics Lab: Laboratory demonstrating key concepts of the course, hands on experience, and verifying the fundamental concepts. **Pre-requisites:** PY 317, PY 317L. **Co-requisite:** PY 318.

PY 325 2-2-3 Modern Physics: Special theory of relativity; atomic physics; topics in quantum mechanics and nuclear physics. **Pre-requisite:** PY 218 or permission of instructor.

PY 402 3-0-3 Statics: Elements of statics in two and three dimensions. **Pre-requisites:** PY 218, MA 325.

PY 403 3-0-3 Dynamics: Kinematics and kinetics of rigid bodies in plane motion. **Pre-requisite:** PY 402.

PY 410+ 3-0-3 Advanced Electricity And Magnetism: Electrostatic field and potentials; magnetic fields and inductance; complex analysis of AC circuits; transformation of integral forms of field equations to Maxwell's Equation: electromagnetic waves. **Pre-requisites:** PY 315 and MA 401 or permission of instructor.

PY 430+ 3-0-3 Quantum Mechanics: Basic Concepts. Solutions of Schrodinger's Equation: topics in atomic and nuclear physics. **Pre-requisites:** PY 325 and MA 348 or permission of instructor.

PY 440+ 2-0-2 Special Problems in Physics. **Pre-requisite:** Permission of instructor.

PY 441+ 2-0-2 Special Problems in Physics. **Pre-requisite:** Permission of instructor.

PY 450+ 0-3-1 Advanced Physics I Lab. Open to students in 400 level physics courses only.

Recreation Courses

RC 316 3-0-3 Introduction to Recreation: The course examines the trends, issues, and challenges of parks, recreation, and leisure. It considers the historical evolution and philosophical dimensions of parks, recreation, and leisure and investigates them not only nationally and internationally but also from the perspective of public and nonprofit - commercial and therapeutic - lifetime health, fitness, and wellness - outdoor adventure - arts and culture - and as a profession.

RC 347 3-0-3 Methods and Materials in Leisure Programs: The emphasis of this course is on the foundations of outdoor education, preparation for teaching outdoors, and methods and delivery of outdoor education. Instruction of this course encompasses theories and foundations in outdoor education; creating the learning environment and designing lessons; physical, cognitive, and affective methods; and one's future in outdoor education.

RC 354 3-0-3 Practicum in Recreation: The course enables recreation majors to examine, observe, and participate and to be mentored in different recreational and/or related situations and activities under the supervision of and consultation with the coordinator of the recreation program. The practicum may occur on or off campus with periodically weekly seminars where majors can express their practicum experiences throughout the semester or summer. **Pre-requisites:** RC 316, RC 347, RC 358, and PE 327.

RC 358 3-0-3 Recreation for the Aging: The course investigates the quantity and quality of life and the individual differences of aging pertaining to the physical changes in structure, capacity, and endurance. It focuses on aging respecting motor coordination, motor control and skill, physical and psychosocial relationships, physical performance and achievement. Exploring the physical development and decline of the elderly; investigating the health, exercise, and cognitive function of the aging; and studying the physical function of older adults is also the focus of the class.

RC 417 3-0-3 Camp Counseling: The growth, structure, and values of organized camping, the camp counselor's role in guidance, camp activities, and camping and trail skills are the areas of focus of this course.

RC 428 1-0-6 Field Work: Fieldwork experience provides majors with an opportunity to observe, examine, apply, adapt, and practice the theoretical knowledge base of recreation at a recreational facility. Majors serve as an administrative assistant for the director of a recreational facility. Being in a leadership position enables them to gain direct and/or vicarious experience in the different managerial, interpersonal, and assessment approaches associated with the organization and administration, operation, and leadership of a recreational facility. **Pre-requisite:** must be a senior and has earned 18 hours in Recreation.

RC 429 3-0-3 Organization and Administration of Recreation: The course focuses on the principles and concepts of organization, the development of an organizational plan, and the effectiveness of administrative and budgetary approaches and/or principles. The course covers the decision making process, the understanding of fiscal and physical resources, and planning for program evaluation and risk management in recreation.

RC 437 3-0-3 Recreation Leadership: The course examines the context of recreation leadership, determines who is the recreation leader, reveals why recreation leadership. It also provides methods on how the recreation leader should make decision, solve problem, communicate, lead, control, plan and on how to facilitate recreation behavior and manage participant behavior. Teaching and using resources, managing the workload according to age group and according to special abilities in recreation are taught in this course.

RC 457 3-0-3 Community Recreation: The course covers what are the VIP action plan, the core values, vision, and mission, and key trends and opportunities of community recreation. It also examines other facets of community recreation: such as the core competencies, strategies for achieving the vision, action steps and performance measures, researching the audience, developing a communication plan, and working.

RC 458 3-0-3 Outdoor Recreation: The course emphasizes the fundamentals of outdoor recreation, outdoor resources, management, education, and participation in outdoor recreation, and it examines the psychology and natural environment and other outdoor recreation resources, the status, purposes, organization and administration of outdoor recreation programs for public, voluntary, and commercial agencies.

RC 477 3-0-3 Recreational Areas and Facilities: The course investigates the planning principles and processes, the internal organizational planning factors, the external planning factors and conditions, and the demographics and community profiles of recreational areas and facilities. It additionally explains the concepts of supply analysis, demand analysis and public consultation, synthesis, analysis, and reporting, open space planning, and facility operation and maintenance.

RC 478 3-0-3 Leisure Counseling: The course introduces the basic theoretical approaches and practical applications associated with leisure counseling. The basic methods of how to utilize such approaches and how to apply them practically are the focus of this course as well.

Medical Radiologic Technology Courses

RT 310 3-0-3 Radiography Anatomy and Positioning II: The course provides demonstration and film evaluation experience in positioning and related anatomy of the spine, pelvis, and lower extremities. **Pre-requisite:** RT 220.

RT 310L 1-0-1 Radiographic Procedures Lab II: The emphasis is placed on developing practical skills in students based on their theoretical fundamental knowledge. The applied aspects of Anatomy and Positioning II, Radiation Exposure and Radiation Protection are the primary components of the course. The Quality Management concerns for each of the procedures studied are addressed during the course. **Pre-requisite:** RT 310 (complete or in progress).

RT 311 3-0-3 Information and Image Processing: This course is used to track students who are new to the program. It gives the students the knowledge of how software promotes applied science; hence, the students are expected to develop understanding and interest in geospatial laboratory techniques. This initial exposure to ERDAS mapping standards gives the students an early start with ERDAS software suites. Correspondingly, the students begin to see the challenges and advantages with which they can prepare to perfect on using the software to establishing strong skills in GIS and remote sensing analysis.

RT 312 3-0-3 Principles of Radiographic Exposure: Basic Interactions of radiation and matter, Brems radiation, characteristic radiation, Planck's Quantum theory, radiographic artifacts, silver recovery, intensifying screens, radiographic grids, structure of matter, electromagnetic spectrum, x-ray production, image receptors, introduction to factors affecting quality. Preparation of technique charts for radiographic exposure. **Pre-requisites:** PY 215, RT 211 (complete or in progress).

RT 313 3-0-3 Radiation Protection: Examines the interactions of radiation with matter; biologic effects of ionizing radiation; quantities and units; dose response curves, patient and personnel protection. **Pre-requisites:** PY 215, RT 211 (complete or in progress).

RT 320 3-0-3 Radiographic Anatomy and POS III: The course provides demonstration and film evaluation experience in positioning and related anatomy of the skull, facial bones, sinuses, and mastoids. **Pre-requisite:** RT 220.

RT 320L 1-0-1 Radiographic Procedures Lab III: The emphasis is placed on developing practical skills in students based on their theoretical fundamental knowledge. The applied aspects of Anatomy and Positioning III, Radiation Exposure and Radiation Protection are the primary components of the course. The Quality Management concerns for each of the procedures studied are addressed during the course. **Pre-requisite:** RT 320 (complete or in progress).

RT 321 3-0-3 Radiographic Pathology: Introduces changes that occur in disease and injury, with application to radiologic technology. Topics include respiratory, skeletal, gastrointestinal, and urinary systems. Students become familiar with the etiology, symptoms, prognosis, and imaging of disease processes of the cardiovascular, nervous, hematopoietic, endocrine, and reproductive systems. **Pre-requisite:** RT 213 (complete or in progress).

RT 322 3-0-3 Pathophysiology: This course investigates general pathology and organ system pathology. It includes a brief review of normal structure and function, followed by more in-depth descriptions of specific pathologic processes. Students will use textbooks and Internet resources to learn the basic characteristics, etiology, pathogenesis, clinical features, and diagnostic tools including medical imaging procedures, prognoses, and therapies for each of the specific pathologies.

RT 324 3-0-3 Advanced Clinical Practice Skills: This course focuses on the current healthcare delivery environment including patient assessment and medical informatics. Advanced patient assessment and care skills such as pharmacology, monitoring, medical charting, and cross-cultural communication are incorporated in the curriculum. Additional topics include an overview of considerations when working in an increasingly digital imaging environment.

RT 325 3-0-3 Research Methods: This course is an introduction to methods and techniques of research in the radiologic sciences. Topics include basic terminology of research, qualitative and quantitative methods, basic research designs, and data analysis techniques.

RT 330 3-0-3 Advanced Diagnostic Imaging: Teaches the analysis of technically advanced imaging modalities including CT, MRI, PET and other imaging modalities. **Pre-requisites:** RT 111, RT 213 (complete or in progress).

RT 331 3-0-3 Statistics for the Health Sciences: The focus of this course is to provide a statistics course specifically for health science majors using techniques and data structures relevant to clinical investigations. General topics include choosing correct procedures and using statistics to understand clinical data. Specific topics include but are not limited to study design, central tendency and variability, probability, repeated measures analysis of variance, data association and prediction, and evaluating diagnostic procedures.

RT 335 3-0-3 Information Imaging and Processing: Presents computed imaging in comparison to screen-film technology. Topics include identifying components understanding how they affect the image, and quality control. Depending on where a radiographer is employed, processing radiographic images may involve screen/film systems and/or digital imaging. Today's radiographers need to be skillful with both methods of processing images to reduce repeated examinations and maintain patient dose as low as reasonably achievable. Students will first be acquainted with methods and equipment for processing film. Automatic processing and processing artifacts will be discussed. Second, students will learn about the evolution in radiology imaging to a film-less environment as they discuss digital imaging and PACS.

RT 340 3-0-3 Operations Management and Qualitative Methods for Healthcare: This course offers a comprehensive introduction to qualitative methods and techniques. The course will explore practical methods and analysis for operational, tactical, and strategic decisions. Topics will include techniques for forecasting, decision-making, facility location, facility layout, reengineering, staffing, scheduling, productivity, resource allocation, supply chain and inventory management, quality control, project management, queuing models for capacity, and simulation.

RT 345 3-0-3 Trend in Radiologic Sciences: This course focuses on current trends in the radiologic sciences (i.e., new equipment, new techniques, and business strategies) and is geared to the student's interest. The student will develop a paper on the topic selected under the guidance of the instructor. **Pre-requisites:** EN 111, EN 112.

RT 347 3-0-3 PACS in Radiology: This course investigates the use of picture archival and communications systems and its impact on healthcare. Topics include comparison of computer-based records to traditional film records, PACS impact on teleradiology, as well as the acquisition of a system, medical-legal, productivity, image compression, and image storage and retrieval issues.

RT 351 3-0-3 Health Law in Medical Imaging: This course is an introductory study of laws affecting medical imaging. Topics include administrative law, professional malpractice, patient rights, risk management, labor law, contract law, and ethical considerations.

RT 355 3-0-3 Seminar: This course requires presentation of oral and written reports on current topics in the Radiological Sciences. Students are required to prepare appropriate visual aids to illustrate their discussion. **Pre-requisites:** EN 111, EN 112.

RT 405 4-0-4 Practicum I: This course includes intensive clinical assignment for students within a special interest area related to radiologic sciences. **Pre-requisite:** consent of program advisor.

RT 410 3-0-3 Essentials of Radiation Therapy: The course explores the machines and treatment delivery accessories used during administration of radiation therapy. The principles of radiation therapy treatment planning, including patient positioning, immobilization, and contouring techniques are reviewed. The course also presents a variety of radiation therapy treatment techniques and dose calculation methods. **Pre-requisites:** RT 312, RT 313.

RT 411 3-0-3 Quality Management in Radiation Science: Evaluation of radiographic systems to assure quality in the delivery of radiographic services. State and federal regulatory agencies assuring quality improvement will be discussed. Equipment quality control discussed and basic testing performed in the laboratory. **Pre-requisites:** RT 220, RT 310, RT 320, RT 330.

RT 412 3-0-3 Advanced Radiographic Procedures and Patient Care: This course covers two major areas: 1. Through intensive sessions, students expand their knowledge of routine and pathologic radiographic positioning and learn alternative methods for positioning patients to obtain diagnostic images. This course also acquaints students with specialized and highly technical procedures including myelography, body section radiography, vascular procedures, sialograms, and ultrasound. In addition, students learn about specialized equipment including image intensification, video recorders, cineradiography, and digital equipment; 2. The course examines the theory and principles of contrast media used in radiologic examinations and special positioning. Basic instructions on venipuncture methods and procedures for the administration of contrast agents are provided. Routes of administration, safety, basic pharmacology, dosage calculations and emergency procedures are reviewed. Prerequisite: successful completion of all level 3 RT courses.

RT 413 3-0-3 Radiographic Equipment and Maintenance: The course exposes students to the basic concepts of imaging equipment theory, function, and repair. The principles of equipment installation, calibration, and quality assessment are reviewed. **Pre-requisites:** RT 111, RT 211.

RT 414 4-0-4 Practicum II: This course is a continuation of RT 405 and includes intensive clinical assignment for students within a special interest area related to radiologic sciences. **Pre-requisite:** consent of program advisor.

RT 421 3-0-3 Healthcare Management: This course is an introduction to application of theories of leadership, change, and management to promote effective healthcare to individuals, families, groups and communities.

RT 422 3-0-3 Radiation Technology Review and Concept in Integration: The purpose of this course is to prepare students for the American Registry of Radiologic Technologist's (ARRT) National Board Examination. Students analyze, evaluate, and critique the theory and practice of the following: care and management of the patient, radiologic analysis and positioning, radiation protection for radiography, radiation physics, and principles of radiographic technique. **Pre-requisites:** successful completion of all level 3 RT courses, RT 411, RT 412, RT 413.

RT 426 3-0-3 Sectional Anatomy: This course is a study of human anatomy as viewed in sectional planes. Students will compare planar anatomy to sectional anatomy and recognize anatomical structures as seen in computed tomography and magnetic resonance imaging. Studies will include the cranium, brain, chest, abdomen, spine and pelvis.

RT 435 3-0-3 Principles of Computed Tomography: This course explores the basic physical and technical principles of CT scanning. Computer technology, system components, image characteristics and quality control methods are introduced. Access to a CT scanner or instructor consent required.

RT 440 3-0-3 Computed Tomography Applications I: This course focuses on the use of computed tomography as an imaging tool from the technologist's perspective. Topics include a review of patient, contrast media and adverse reactions, and imaging protocols for the brain, sella turcica, orbit, temporal bone, paranasal sinuses, neck, chest, abdomen, pelvis, and spine. CT-guided interventional techniques will also be discussed. Access to a CT scanner or instructor consent required. **Pre-requisite:** RADS 4723 - Principles of CT.

RT 445 3-0-3 Computed Tomography Applications II: This course is a continuation of RT 440 and focuses on the use of computed tomography as an imaging tool from the technologist's perspective. Topics include a review of imaging protocols for the brain, sella turcica, orbit, temporal bone, paranasal sinuses, neck, chest, abdomen, pelvis, and spine. CT-guided interventional techniques will also be discussed. Access to a CT scanner or instructor consent required. **Pre-requisite:** RADS 4723 - Principles of CT.

RT 450 3-0-3 Principles of Magnetic Resonance Imaging: This course explores the basic physical and technical principles of MRI scanning. Related systems components, physics, image characteristics, quality control methods, limitations, safety, and future developments are introduced.

RT 455 3-0-3 Magnetic Resonance Imaging Applications I: This course provides a functional understanding of the basic MRI parameters and how they are used to image specific parts of the body in the axial, coronal, and sagittal planes. The focus of the course will be on MR sequences and presentation of anatomy and pathology. Access to a MRI scanner or instructor consent required.

RT 460 3-0-3 Magnetic Resonance Imaging Applications II: This course is a continuation of RT 455 and provides a functional understanding of the basic MRI parameters and how they are used to image specific parts of the body in the axial, coronal, and sagittal planes. The focus of the course will be on MR sequences and presentation of anatomy and pathology. Access to a MRI scanner or instructor consent required.

RT 465 3-0-3 Principles of Mammography: The purpose of this course is to provide the technologist with guidelines for performing quality mammography examinations. Includes the historical background of breast cancer and technical evolution of mammographic technique, essentials of the "Imaging Chain", patient education, introduction to QA, troubleshooting, instrumentation and positioning.

RT 470 3-0-3 Mammography Applications: The purpose of this course is to provide the technologist with guidelines for performing quality mammography examinations. The student will learn mammographic technique, methods of patient education, troubleshooting, instrumentation and positioning.

RT 475 3-0-3 Mammographic Quality Assurance: This course will introduce the student to the regulations established under the Mammography Quality Standards Act of 1992 (MQSA), fully implemented in 1999. The focus of the course is based on MQSA principles and quality control procedures.

RT 480 3-0-3 Applied Research: This is a capstone course involving directed research in their area of specialty culminating in a substantive paper based on the interest and needs of the student. **Pre-requisite:** RADS 325.

RT 485 3-0-3 Concept Integration and Review: This is a capstone course involving directed research in their area of specialty culminating in a substantive paper based on the interest and needs of the student. **Pre-requisite:** RADS 325.

Speech and Theatre Courses

SA 207 0-3-1 Speech-Theatre Laboratory: Practical work in theatre production or forensic activities. Credit will be given upon satisfactory completion of specific projects agreed upon in advance by the student and the supervising instructor. Course may be repeated.

SA 214 3-0-3 Introduction to Theatre: A course designed to increase the student's appreciation of the theatre and its importance in Western Civilization.

SA 223 3-0-3 Oral Communication: A course in the principles and practice of oral communication. Attention is given to problems of informal and formal patterns of effective speech, appropriate body expression and basic articulation. The course is designed to help the student to perform acceptably, not only in public address, but in private and informal situations as well. **Pre-requisites:** EN 111 and EN 112.

SA 245 3-0-3 Acting: In this course, students will participate in group exercises related to the development of basic acting skills and will work on monologues and multi-actor scenes. Exercises will deal with developing abilities in self-awareness, sensitivity to emotions, and textual analysis.

SA 325 3-1-3 Play Production: A general survey of the various elements that go into putting on a play, from the selection of the play and cast to the final performance. Students are required to learn the elementary fundamentals of directing, lighting, and scenery design and construction.

SA 351 3-0-3 Oral Interpretation: This course places emphasis on the dynamics involved in the oral approach to the study of literature. All genres of literature will be covered. The course is especially appropriate for those planning to teach literature at any level. **Pre-requisite:** SA 223.

SA 361 3-0-3 Public Address: A study of the theory and practice of speech delivery. Emphasis will be placed on major speeches. Skills to be developed will be those appropriate at political rallies, in the courtroom, the classroom, and behind the pulpit. **Pre-requisite:** SA 223.

SA 362 3-0-3 Discussion, Argumentation, and Debate: An intensive study of various speech skills. Emphasis will be placed on cooperative participation in discussion, structural aspects of argumentation, and the role of debate in society. **Pre-requisite:** SA 223.

SA 423 3-0-3 History of Theatre: A study of the development of the theatre from the Greeks to the present, its place in the history of civilization and its changing relations to social conditions.

Spanish Courses

SP 111 3-0-3 Spanish I: Essentials of the language. Systematic training in phonology. A study of the spoken elements of the language with emphasis on the audio-lingual approach.

SP 112 3-0-3 Spanish II: A continuation of SP 111. **Pre-requisite:** SP 111.

SP 213 3-0-3 Spanish III: A continuation of SP 112. Review of essentials and intensive reading of contemporary texts. Outside reading assignments. Conducted mainly in Spanish. **Pre-requisite:** SP 112.

SP 214 3-0-3 Spanish IV: A continuation of SP 213. Compositions on assigned themes. Intensive drill on the idiomatic use of the language. Conducted mainly in Spanish. **Pre-requisite:** SP 213.

SP 223 3-0-3 Spanish Civilization: An outline study of the physical, racial, historical and artistic influences which have molded Spanish culture. Lectures, reading, oral and written reports. **Pre-requisite:** SP 214.

SP 225 3-0-3 Conversation and Composition: Practice in idiomatic Spanish. Prepared and impromptu conversations and discussions on current events. Exercises in composition. **Pre-requisite:** SP 223.

SP 315 3-0-3 Survey of Spanish Literature: A general outline course in the history of Spanish literature up to the Golden Age. Lectures, readings, oral and written reports. **Pre-requisite:** SP 225.

SP 316 3-0-3 Survey of Spanish Literature: A general outline course in the history of the literature of the Golden Age and the eighteenth century. Study of the most significant aspects of modern and contemporary literature in Spain. Lectures in Spanish. **Pre-requisite:** SP 315.

Sport Management Courses

SM 200 3-0-3 Introduction to Sport Management: The course engages students in the relevance of sociological, cultural, historical, political, psychological, and legal concepts to the management of sport; the necessary professional skills and attitudes of sport managers; and ways in which the globalization of sport continues to affect sport management professions.

SM 201 3-0-3 Direct Sport and Recreation: The course examines the philosophies, goals, objectives, and purposes of organization of directing sport and recreation; it critiques the philosophic foundation of sport and recreation; it discusses the different concepts of directing sport and recreation, styles of leadership, approaches of facility management, and supervising functions of personnel; and it focuses on the different features of program development, the budgetary process, and on the variety of techniques underlying measurement and evaluation of an organization.

SM 300 3-0-3 Liability and Safety in Physical Education and Sport: The course examines the underlying knowledge base of tort law and negligence theory, negligence defenses, and supporting case law. It provides the legal duties of physical Education and sport staff and provides the miscellaneous issues associated with the legality of sport.

SM 301 3-0-3 Sport Ethics: The course explores ethical concepts in sports, sportsmanship and gamesmanship, and gambling in sports. Specific emphases of the course are on Ethics for participants, coaches, and sports officials; ethical considerations for parents and fans; violence in sport; and the ethics of drug use and testing. Ethical considerations of race in sports - ethical duties of sport agents - women in sports – discrimination - Title IX - ethical consideration for intellectual property in sports - ethical consideration in sport media - and ethical guidelines for the sports management professional are subjected to study and research in this course.

SM 302 3-0-3 Fundraising and Promotion: The course engages students in the fundraising and promotion for sport and recreation programs. It explores the understanding of successful fundraising, promotions and public relations in the 21st century; offers fundamental elements and resources of fundraising and promotion; provides effective strategies for successful fundraising with booster clubs and sport support groups; emphasizes the importance of planning in fundraising activities, the who, what and why of fundraising, and strategies and tactics of raising money.

SM 303 3-0-3 Facility Management: The class covers numerous issues from construction-related concerns to marketing facilities, naming rights, and concession concerns. Also covered are topics related to the facility management side of the industry with special attention on back-house operations such as water, heating, cooling, and related activities. This is a comprehensive course focused on applied rather than theoretical knowledge.

SM 304 3-0-3 Sport Law, Contracts and Compliance: The growth of professional and amateur sports over the last quarter century has produced a myriad of legal issues. A basic knowledge of the law governing professional and amateur sport is crucial to the work of a sport manager. Whether one works for a team, manages a facility, or organizes an amateur league, the legal implications of management decisions can have daunting consequences. The class discusses and analyzes the applicable law governing the sport industry. Contracts, personal injury, risk management, labor law, intellectual property, employment, discrimination, and antitrust are major areas covered in the class.

SM 305 3-0-3 Trends, Issues, and Challenges of Sport Management: The course engages students in the relevance of today's society in sports. It examines issues and historical development of sport to the present. Reviewing major changes in society and the world of sport of segregation and desegregation, overcoming racial barriers to dominance of minorities in professional and intercollegiate sports, from the Olympics to the Paralympics, women participating and coaching sports, Title IX, mental and physical disabilities, consumers and spectators' outlook, and the increasing population of people involvement in physical fitness, quality of life, and social interactions are the trends, issues, and challenges that are of study and research in the course.

SM 306 3-0-3 Essentials of Strength Training and Conditioning: The course provides the concepts and applications of the exercise sciences, test and evaluation, exercise techniques, program design, and organization and administration. It investigates the structure and function of the muscular, neuromuscular, cardiovascular, and respiratory systems and principles of test selection and administration, resistance training and spotting techniques, anaerobic exercise prescription, aerobic exercise prescription, and facility organization and risk management.

SM 400 3-0-3 Leadership and Management in Athletic Training: The course introduces athletic training, the sports medicine team, fiscal and risk management. It involves program and facility management, reimbursement and revenue, and leadership and motivation. It provides leadership and management theories, leadership behaviors and management tools, legal issues and risk management, and facility design and management.

SM 401 3-0-3 Psychology of Sport: The course engages students in the most important and active areas of current research that recognizes the merging of individuals and socio-environmental factors in making sense of sport performance and behavior. The course includes definitions of terms, an explanation of the chapters' scope, and an outline of the sections. The course also provides a review of the available research and theory on main topics in the text and devotes significant space to future research directions.

SM 402 3-0-3 Sport Marketing: The course discusses the emergence of sports marketing, segmentation, targeting, and positioning - sports product concepts - promotion mix elements, and sponsorship programs; presents contingency framework for strategic sports marketing, research tools for understanding sports consumers, promotion concepts, and pricing concepts and strategies; and explores the understanding of participants and spectators as consumers, managing sports products, and the implementing and controlling the strategic sports marketing.

SM 403 1-0-12 Sport Internship: Through networking and on-site field experiences, majors will gain competencies in the sport management field and applying theories learned from previous courses. The internship allows students to complete a partial fulfillment in the sport management degree program and provides career opportunities in the sport industries of their choice.

Social Science Courses

SS 111 3-0-3 Social Institutions: Their Nature and Change: An interdisciplinary course designed to provide a comprehensive introduction to the social sciences. Students are exposed to central concepts and issues in the social sciences. Key topics pursued in this course include: the nature of science, the cultural system, socialization and personality, and society and its subsystems (i.e., family, religion, and education).

SS 112 3-0-3 Social Institutions: Their Nature and Change: A continuation of SS 111. The primary focus of SS 112 is economic and political systems, both domestic and international. Attention is given to identifying and defining key conceptual terms that provide for effective utilization of theoretical and analytical frameworks for understanding economic and political systems.

SS 307 3-0-3 Statistical Methods: This course is designed to provide students with the basic statistical techniques and methods commonly demanded of college graduates in the today's job markets and in the first year advanced studies. Topics include: data organization, processing and presentation; techniques of quantifying information, scaling and indexing; analytical methods of central tendency and dispersion; various distributions, their major properties applications; regression correlation analysis; and methods of hypothesis testing.

SS 333 3-0-3 Introduction to Logic: This course is designed to explore the rules of correct thinking in both deductive and inductive logic. The main body of the course is a study of Aristotelian logic and an introduction to modern or symbolic logic.

SS 347 3-0-3 Organizational Theory and Analyses: A detailed study of the major social institutions in American society, with special emphasis on their structure, function, interrelationship, in an evolving social order.

SS 375 3-0-3 Research Methods in Social Sciences: Orientation of research, major steps in different types of research, their frame of reference and decision models discussed; related and appropriate statistical methods, mathematical programming and econometric models introduced and evaluated. **Pre-requisite:** Junior Status.

SS 396 3-0-3 Introduction to Philosophy: A survey course of the various fields of philosophical inquiry, including a brief historical sketch of philosophy from its beginning to modern times, and some of the main issues from the various branches of Philosophy (cosmology, psychology, ethics, epistemology, theory, and metaphysics).

SS 397 3-0-3 Ethics: A study of classical and contemporary moral theory and the implications of these theories for current ethical issues in the area of politics, sociology, medicine, business, and other related fields.

SS 473 3-0-3 Internship: A supervised field placement that allows the student to receive on-the-job training with an identified public or private agency. Placement must be arranged with the sanction of the Department of Social Sciences. Application must be made one semester in advance of the internship. A student will be placed in internship based on an evaluation of their readiness per the requirements and **prerequisites** of their majors. Student must have exited Academic Support Center and complete all academic requirements through the first semester of their senior year. Student must generate 12 placement hours per week for 3 credit hours. This course is required for Criminal Justice majors. The student must provide own transportation and purchase liability insurance (if required).

SS 473A 6-0-6 Internship: See description for internship provided in SS 473 above. Application and academic requirements as **prerequisites** are the same as identified in SS 473, as are requirements related to transportation and liability insurance. Students must generate 24 placement hours per week for 6 hours credit. This course is required for students with a concentration in Sociology.

SS 476 3-0-3 Social Science Seminar: A capstone course in the Social Sciences designed for seniors only. It provides a broad holistic understanding of the basic principles and assumptions of social science disciplines. The seminar covers a substantive, reflective and sound examination of the key elements in the America's social, political, and economic process. **Pre-requisites:** Completion of General Education requirements and graduating senior status. For non-graduating seniors consent of curriculum coordinator or chair of the department is required for enrollment.

SS 485 3-0-3 Systemic Strategies in Social Science: This course provides a pedagogical basis and strategies for classroom instruction in the field of Social Science Education.

Social Work Courses

SW 230 3-0-3 Introduction to Social Work: Introductory course dealing with a systematic survey of the historical development of social work from "charity" to definite principles and theories.

SW 300 3-0-3 Child Advocacy Studies: This course will cover the history and issues of child maltreatment and child advocacy in the United States and around the world.

SW 302 3-0-3 Basic Issues in Mental Health: This course will examine basic issues in the mental health service delivery system. Emphasis will be placed on client rights, mental health laws, goals of mental health systems, and areas of specialization.

SW 319 3-0-3 Human Behavior and Social Environment I: Provides the student with current research and knowledge of relationships among human biological, social, psychological, and cultural systems as they affect or are affected by human behavior. **Pre-requisite:** SW 230.

SW 320 3-0-3 Human Behavior and Social Environment II: This course uses the person-in-environment focus as it explores relevant issues in life-span development. **Pre-requisite:** SW 319.

SW 346 3-0-3 Social Work for the Aging: Provides a systematic study of social work approaches to providing services to the aging; current policies, services, and models of practice. **Pre-requisite:** SW 230.

SW 348 3-0-3 Child Welfare: This course provides an evaluation of current development in programs for meeting the needs of children. **Pre-requisite:** SW 230 or SY 235 of PH 132.

SW 349 3-0-3 Child Welfare Worker and Court: This course explores the skills and techniques utilized by social workers who must gather evidence and provide testimony in areas of child abuse and neglect. **Pre-requisite:** SW 230 and SW 319.

SW 351 3-0-3 Social Work Practice I: This course focuses on problem solving techniques and strategies in case work, group work, and community organization. **Pre-requisite:** SW 230.

SW 352 3-0-3 Social Work Practice II: Stress on specific therapy techniques used in one-to-one counseling and group therapy. **Pre-requisite:** SW 351.

SW 360 3-0-3 Community Social Work Practice: Introduce students to basic knowledge and skills for stimulating and assisting communities to evaluate, plan and coordinate its efforts to provide for its health, wellness, and recreational needs. **Pre-requisite:** SW 351.

SW 362 3-03 Skills in Interviewing: This course is designed to help individuals develop skills in conducting a social history, a diagnostic interview and a therapeutic interview. **Pre-requisite:** SW 230 SW 351.

SW 365 3-0-3 Cultural Diversity: This course prepares students to understand and appreciate client cultural systems, the nature of cultural identity, group membership access to resources, strategies to combat discrimination, oppression and economic deprivation and to promote social and economic justice. The focus of the course is to present human diversity and population-at-risk content for the academic curriculum at the undergraduate level of social work. **Pre-requisite:** SW 230, SY 235 or junior status.

SW 367 3-0-3 Drugs, Alcohol and Society: This course focuses on the major issues involved in the prevention, treatment and rehabilitation of substance misuse and abuse in society. **Pre-requisite:** SW 230 or SY 235.

SW 375 3-0-3 Research Methods in Social Work: This course is designed to introduce students to Social Work values, the research process, problem formulation and conceptualization, measurement, research design and inference, single subject design and practice evaluation, sampling, alternative data gathering techniques and analyses, and uses of research in social work. **Pre-requisite:** SW 230 or SY 235.

SW 397 3-0-3 Ethics and the Social Work Profession: This course focuses on the moral imagination of social work students, and prepare them for competent and compassionate ethical practice as social work professionals. **Pre-requisite:** SW 230, junior status.

SW 405 3-03 Social Welfare Policy and Services: A policy course that introduces students to basic problems of economic insecurity and social welfare in our society with special references to low-income and minorities. **Pre-requisite:** SW 230, junior status.

SW 408 3-0-3 Marriage and the Family: This course is designed to provide an understanding of the origin, foundations and functions of marriage and the family, as well as insights into significant factors influencing the processes and trends in courtship, companionship, marriage and family patterns. **Pre-requisite:** SW 230 or SY 235.

SW 409 3-0-3 Mental Health Seminar: This course is an interdisciplinary seminar on mental Health. It is designed to prepare students for entry- level professional practice by providing a knowledge base for working with the mentally ill. Attention is given to analysis of theories, methods and techniques for practice. Also addressed are contemporary mental health and professional ethics. **Pre-requisites:** SW 230 or SW 302.

SW 412 3-0-3 Case Management: This course introduces students to skills and techniques for developing, implementing, and monitoring a social service plan to meet the needs of various client populations. **Pre-requisite:** SW 351 or enrolled in SW 473.

SW 419 3-0-3 Social Work in Corrections: This course is designed to prepare social work students for practice in the criminal justice system. The course presents an overview of the criminal justice system while exploring the network of systems which comprise it. **Pre-requisite:** SW 230.

SW 429 3-0-3 Social Work Practice with Black Faculty: This course provides a framework for understanding the needs of black families and identifies culturally relevant approaches. **Pre-requisite:** SW 230 and SY 235.

SW 448 3-0-3 Special Topics Professional Development in Social Work: This course prepares students for generalist social work practice by focusing on the integration and application of social work knowledge, skills, values and ethics. **Pre-requisite:** SW 230, SW 352 and Junior/senior status.

SW 473 6-0-6 Social Work Internship: The Social Work internship provides a supervised field placement with an approved public or private entity. **Pre-requisite:** senior status and permission of the instructor. Graduating Senior Only.

SW 475 3-0-3 Social Work Field Practice Seminar: Field Practice Seminar provides a forum for the discussion of the integration of the of the BSW foundation courses into the students' practice in the field. **Pre-requisite:** senior status and permission of the instructor. Approval for Internship and Graduating Senior.

Sociology Courses

SY 235 3-0-3 General Sociology: A course designed to give the basic concepts and generalizations in the field of Sociology with a special emphasis placed on societal beliefs and behavior, culture and socialization, personal growth and development, and a general analysis of major social institutions.

SY 302 3-0-3 Rural Sociology: A study of the structure, population trends, and the changing social institutions of rural America. Special attention will be given to community and economic development of distressed rural communities.

SY 330 3-0-3 Social Psychology: An introduction to the study of the psychological factors influencing the behavior of persons within group situations, as well as an analysis of the social environment upon personal attitudes, sentiments, values, and action. **Pre-requisite:** SY 235.

SY 335 3-0-3 Juvenile Delinquency: This course is designed to evaluate some significant causative factors of Juvenile Delinquency as outlined in the literature. Functions of relevant agencies will be examined. **Pre-requisite:** SY 235.

SY 346 3-0-3 Aging and Society: A systematic presentation of the field concerning the demographic, health and cultural factors in aging. This course will examine social adjustments of individuals in later stages of the life cycle, including family and associational relationships; the impact of aging in social, economic, and political structures of society; and political measures to promote and support the health and well-being of the senior citizen. **Pre-requisite:** SY 235.

SY 349 3-0-3 Sociology of Poverty: This course will focus on the nature of poverty and poverty programs in the United States, particularly since the 1960s. Attention will be given to sociological theories that attempt to explain poverty. Key topics include the dimensions of poverty and inequality, the causes of poverty, and policy options addressing the needs of the poor. **Pre-requisite:** SY 235.

SY 361 3-0-3 Cultural Anthropology: A survey of the theories of cultural anthropology. A systematic and synoptic study of the major historical contribution of anthropologists. Special attention will be given to concepts of culture, personality, law, order, and social control. **Pre-requisite:** SY 235.

SY 365 3-0-3 Racial and Cultural Minorities: Origins of minority group and racial attitudes. Biological and cultural concepts of race and minority groups; problems of adjustment in interracial and multiethnic societies. **Pre-requisite:** SY 235.

SY 367 3-0-3 Drugs, Alcohol and Society: This course intends to explore in-depth some aspects of the abuse and misuse of alcohol and the drugs in our society with special emphasis on prevention, treatment, and rehabilitation.

SY 399 3-0-3 Sociological Theory: A survey of the growth and development of sociological theory with emphasis on extensive readings of outstanding writers in the field. **Pre-requisite:** SY 235, and at least nine more credit hours in Sociology.

SY 408 3-0-3 The Family: A course designed to provide an understanding of the origin, foundations and functions of marriage and the family, as well as insights into significant factors influencing the processes and trends in courtship, companionship, marriage and family patterns. **Pre-requisite:** SY 235.

SY 417 3-0-3 Modern Social Problems: The course consists of two parts, (1) current social problems mainly in the United States, and (2) a survey of ideas in social theory for applicability to problems. The theoretical conclusions are discussed as affording guidance in the search for solutions to problems. **Pre-requisite:** SY 235.

SY 419 3-0-3 Criminology: An investigation of the social nature of criminal and delinquent behavior, with particular reference to modern theories of causation, and methods of prevention and treatment. A field trip to a nearby correctional institution is anticipated. **Pre-requisite:** SY 235.

SY 428 3-0-3 The Community: A study of all types of communities - rural and urban, agricultural and industrial - with emphasis on the influence of size, occupation, and culture, upon the structural and functional patterns of community life.

SY 429 3-0-3 The Afro-American Family: This course is designed to explore many of the socio-cultural and socio-environmental factors that impact African American family life. It examines how the structural and functional characteristics of the larger society directly and indirectly influence what happens in African American families within the context of family as a social institution. It is a course designed to acquaint students with empirical research based on quantitative and qualitative analysis, using simple statistical methods. Extensive written and oral activities are required.

SY 502 3-0-3 Comparative Family Systems: This course is designed to acquaint the students with the cross-cultural patterns of family life; the importance and significance of the family and the social interaction involved at various social levels.

SY 504 3-0-3 Advanced Cultural Anthropology: An analysis and study of the contemporary anthropological theories of culture; a comparison of economic, political, religious, and kinship structure of various societies of the world.

SY 516 3-0-3 Social Foundation of Personality: The impact of social and cultural factors on the growth and development of personality; with emphasis on social status, norms, roles, and social interaction as discussed in various theories of personality development.

SY 567 3-0-3 Racial and Cultural Minorities: This course will examine and explore race and ethnic relations in American society. It will delve into the historical and cultural heritage of the diverse ethnic groups found in America and around the world. Particular attention will focus on the present day sociological, economic, religious, and political issues and problems that evolve racial relationships across the U.S. Particular attention will be given to recent immigrants and resulting immigration policies and legislation. A deep examination will be conducted that looks at conflicts and issues that arise between ethnic minorities because of competition for resources and differential treatment by the prevailing dominant group.

Trades and Industrial Education Courses

TI 325 3-0-3 Trade Job and Occupational Analysis and Course Construction: The development of an orderly procedure for identifying and listing instructional elements to be used in teaching a trade or occupation. Planning an operational informational breakdown of topics for useful elements in trade reference to exploring, investigating, and choosing an occupation suitable to one's interest, physical and intellectual ability.

TI 450/550 3-0-3 Delivering Instruction in Industrial and Vocational Programs: Teaching methods and techniques of current trends and problems in management of laboratory courses.

TI 451/518 3-0-3 Development and Use of Instructional Materials in Industrial and Vocational Programs: Identification, development and use of instructional aids and materials, including job instruction, information and planning sheets.

TI 452/552 3-0-3 Instructional Planning in Industrial and Vocational Programs: A study of the problems and practices underlying curriculum construction in Trade and Industrial Education. A study of the relationship between general education and vocational education on the secondary level.

TI 453 3-0-3 Directed Teaching in Trade and Industrial Education: Directed teaching includes eight weeks of laboratory experience, observing and teaching in one of the cooperating educational centers, and participation in a pre-seminar and post-seminar. These seminars are designed to identify and discuss practical guidelines for the directed teaching process, with special emphasis given to analysis and evaluation of on-the-field experiences.

TI 589 3-0-3 Philosophy and Principles of Vocational Education: Trend, development and operation of vocational and technical programs with special emphasis placed on trade and industrial education.

Robotics and Automation Courses

TY 101 3-0-3 Problems in Technology: Basic technological problems and equipment characteristics, velocity, speed, pressure, and temperature calculations and transformations, international and American measurement units, trigonometry in 2D and 3D geometric forms, projections, tolerances, measurement errors, sensitivity of instruments.

TY 107 1-0-1 Computer Applications Lab: This course is designed to introduce individuals with little or no computer skills to some of the basic concepts involved in computer application. The course involves a hands-on approach to learning concepts of word processing; electronic spreadsheets database management and graphics. This course will focus on Microsoft Office Suite Application Software (Word, Excel, PowerPoint, Access, and FrontPage). In addition to the above-mentioned Microsoft applications, the course introduces some basic computer concepts and a brief introduction to the Internet.

TY 174 3-0-3 Engineering and Technology Computation and Simulation: This course introduces students to technical computation using Matlab and Introductory Computer Language[s]. The focus will be on solving problems in science and technology. It will explore the fundamental principles and logic behind the language.

TY 201 3-0-3 Problems in Engineering: Vibrations, coils, nonlinear characteristics and elements, spherical elements and bodies, numeric methods in problems solving, basics of computer dynamic modeling, and simulations.

TY 207 3-0-3 CAD/CAM: Basic principles required for pattern drafting, machine drawing, design tolerance and fabrication drawing. This includes emphasis on isometric, oblique, orthographic and simple projections. Computer Aided-Design (CAD) and Computer Aided-Manufacturing (CAM) principles and their practical applications as fundamental elements of the contemporary product realization process. **Pre-requisite:** MA 121.

TY 209 3-0-3 Robotics: Industrial Robots, types and methods of control. Application to various industrial processes including programmable logic controllers, robot programming, kinematics and dynamics, robots system planning and human factors in robot applications. **Pre-requisite:** MA 121.

TY 215 3-0-3 Industrial Research Methods: An introduction to general research methodology which involves industrial research design and statistical data analysis. Emphasis is placed on research problem identification, alternative solutions and solving research problems through proper data collection, analysis, and conclusions.

TY 232 3-0-3 Circuit Analysis: Atomic structure of matter; electron, proton, neutron, sources of electricity; batter, Ohm's law, power law, resistance, inductance, capacitance, electro-magnetism, relays transformers, electrical meters, motors, and generators. Extensive oral and written communications are required. **Pre-requisite:** MA 121.

TY 246 3-0-3 Machine Control Systems: An introduction to design and application of machine control systems. Course emphasis is placed on practical aspects and principles of automatic control systems dealing with controllers, calibrators, flow movements, relays, and switching. Extensive oral and written communications are required. **Pre-requisite:** TY 232.

TY 301 3-0-3 Technology and Engineering Analysis: System and process modeling, simulation, technological process design and simulation, applications of mathematics in technology, matrices in solving technological problems, basic statistics, and Monte-Carlo simulations.

TY 308 3-0-3 Production Planning and Control: This course deals with theories and concepts that are essential when considering material flow, management problems, decision making techniques and supporting data base in manufacturing industry. Emphasis is placed on information systems and the use of contemporary manufacturing resources and a material requirement planning software and applications.

TY 311 3-0-3 Applied Engineering Calculations: Differential and difference equations in engineering, Fourier and Laplace transform, linear systems, systems of equations, numerical integration and differentiation. **Pre-requisite:** MA 121.

TY 319 3-0-3 Manufacturing Processes: Elements of manufacturing processes. Major emphasis will be placed on materials and processes as they pertain to the concept of inspection and quality control. Extensive oral and written communications are required.

TY 320 3-0-3 Computer Integrated Manufacturing: This course is designed to provide students with a comprehensive technical survey of the important topics in Computer Integrated Manufacturing (CIM) Systems. Emphasis is placed on physical integration of both hardware and software in automation and production systems.

TY 322 3-0-3 Occupational Safety and Management: This course provides the student with a broad background knowledge of the safety rules and regulations with reference to OSHA, EP, Policies and a variety of scientific studies and investigations on ways and means of controlling diseases, accidents and other industrial hazardous problems in the workplace.

TY 323 3-0-3 Principles of Technical Management: This course presents methods of management applied to technical systems aimed at continuous improvement of those systems. Total quality management, human resources management, safety management, project management, and operations and production management are key concepts introduced in the course. The course provides the foundation of technical management approaches. Course also deals with day-to-day operational problems in contemporary manufacturing industries including Optimized Production Technology (OPT) and other ideas. Special emphasis is placed on a detail treatment of just-in-time (JIT) production scheduling, the scheduling of Flexible Manufacturing Systems (FMS) and complete treatment of distribution requirements for aggregate planning and inventory management.

TY 331 3-0-3 Electronics: Electronic theory is discrete devices, and integrated circuits. Applications of semiconductor devices; diodes, SCR, and transistors. An introduction to transistors, amplifiers, oscillators and active filters. Intro to digital electronics. Extensive oral and written communications are required. **Pre-requisite:** MA 121 or TY 232.

TY 338 3-0-3 Digital Electronics and Micro-Processors: The course will cover number systems, digital signals, logic gates, combinational logic, medium scale IC's sequential logic circuits, and analog converters. Micro-processor memories, PLDs, architectures, intermediate hardware and software, and interface applications. Extensive oral and written communications are required. **Pre-requisite:** TY 232.

TY 339 3-0-3 Plant Layout and Material Handling: The fundamental theories, practices, and methods for the design of manufacturing facilities and analysis of contemporary material handling procedures. Emphasis is placed on plant layout procedures and techniques of material flow for production of goods and services.

TY 361 3-0-3 Feedback Control: Modeling and simulation. Single input and single output control, multiple input and multiple output systems. BIBO and asymptotic stability. Control of linear systems, PID controllers, optimal linear control. **Pre-requisite:** TY 232.

TY 394 3-0-3 Lean Manufacturing: This course addresses modern principles and techniques of lean manufacturing. Major topics include lean principles, six sigma, and continuous improvement.

TY 401 3-0-3 Applications in Technology: This class summarizes applications in technology covered in the first three semesters of the student's program and introduces students to applications that will be explained in detail in the following semesters.

TY 405 3-0-3 Industrial Quality Control: A course that thoroughly examines basic statistical process control concepts and applications. Emphasis is on control charts, including setting scales, charts, interpreting, and analyzing process capability. Problem solving techniques are also emphasized, and all learning is linked to the actual implementation in the workplace. Extensive oral and written communications are required.

TY 438 3-0-3 Project Management: Fundamentals of planning, scheduling, and control phases of project activities based on CPM, PERT, and other network based techniques. Extensive oral and written communications are required.

TY 445 4-0-4 Total Quality Management: An application of total quality management principles and management tools used as a framework for productivity and continuous improvement in all business and industry decisions, including market research, product definition and specification, manufacture, sales and distribution, and service and support.

TY 446 3-0-3 Senior Capstone: Individual student computer integrated manufacturing project. This course aimed to show the knowledge of robotics, NC machines, PLCs and industrial networks. Written report and public presentation are required.

TY 450 3-0-3 Industrial Fluid Power: A study of basic hydraulics and pneumatics systems, circuits and devices. Emphasis is placed on the design and application of logic controls in hydraulics and pneumatics. Extensive oral and written communications are required.

TY 456 3-0-3 Machine Control Systems: An introduction to design and application of machine control systems. Course emphasis is placed on practical aspects and principles of automatic control systems dealing with controllers, calibrators, flow movements, relays, and switching. Extensive oral and written communications are required. **Pre-requisite:** TY 232.

TY 461 3-0-3 PLCs: The course will cover PLC types and architectures. Different input and output hardware. Modular and non-modular PLCs. Ladder logic programming. Treating analog measurements using PLCs. Higher level PLC programming languages. Basics of PLC networking.

TY 466 3-0-3 SCADA and HMI Systems: Definition and basics of SCADA and HMI systems, elements of SCADA and HMI systems, industrial databases, condition based maintenance, data logging and monitoring, alarms.

TY 467 3-0-3 Electrical Power Distribution Systems: Study of techniques and solution to fundamental problems in the electrical power industry. Emphasis on practical applications. An introduction to power system elements; three and poly-phase circuits, transmission lines, transformers and AC-DC machines. Extensive oral and written communications are required. **Pre-requisite:** TY 232.

TY 477 3-0-3 Sensors and Computer Measurement Industry: The course will cover PLC types and architectures. Different input and output hardware. Modular and non-modular PLCs. Ladder logic programming. Treating analog measurements using PLCs. Higher level PLC programming languages. Basics of PLC networking.

TY 487 3-0-3 Advanced Robotics: Advanced engineering principles in the design and analysis of robots. Industrial application of robots. Emphasis is placed upon the use of numerically controlled machines.

TY 490 3-0-3 Computer Architecture: This course aims to provide a strong foundation for students to understand modern computer system architecture and to apply these insights and principles to future computer designs. The course is structured around the three primary building blocks of general-purpose computing systems: processors, memories, and networks.

TY 499 3-0-3 Environmental Hazards Management: This course is designed for student to gain industrial work experience in managing workplace environmental hazards. The student also completes a minimum of 7 hours each of classroom contact time in preparing for the returning from the industrial site. Satisfactory performance in the course is determined by information obtained from the industrial site supervisor and independent study assignments, and teacher evaluations. Extensive oral and written communications are required.

University Life Courses

UL 101 1-0-1 University Life: This course is designed to ensure students make a successful social and academic transition into the learning environment with a focus on study skills, test-taking skills, time management, career exploration, and guest lecturers. It is the purpose of the course to engage the student in his/her personal and intellectual development with an emphasis on critical thinking, and thereby increase the student's understanding of his/her role as a scholar and as a citizen in a free democracy.

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