

From
Our
Founding

To
Our
Future



The cover for the 2018-2020 catalogue and 2019-2020 addendum catalogue was designed by Mrs. Gina Moore, Professor of Art, Benedict College.

BENEDICT COLLEGE CATALOGUE



2018-2020

2019-2020 Addendum

Benedict College is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award baccalaureate and masters 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 Benedict College.

**Benedict College
Columbia, South Carolina 29204**

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Volume 82 (Addendum)

**A MESSAGE FROM THE PRESIDENT
ROSLYN CLARK ARTIS, J.D., Ed.D.**

Academic excellence has characterized Benedict College since its founding 149 years ago in 1870. Countless men and women have stood on the broad shoulders of our founder and accepted her challenge to provide quality educational opportunities for deserving students and to sustain that legacy for generations to come. During every era of its existence, whether it was facing challenges, navigating obstacles, or achieving milestones along the way, Benedict College has stood tall and remained true to its mission by answering the questions, meeting the challenges, and sending its graduates throughout the nation and the world empowering them to be “powers for good in society.” They strive to do good, be better, and become #TheBESTofBC!

Our students have always been the conduit through which the awesome transformative power of education has been conveyed. Between these hallowed walls, descendants of former slaves heard about and yearned to come to Benedict Institute where their deferred dreams could be realized; and their descendants heard about and have come to Benedict College where their dreams can be actualized. Benedict College is the place where dreams can come true.

The present day mission of Benedict College, is to graduate students who are prepared to assume competent, responsible, and compassionate leadership roles in every area of human endeavor. From aspiring cybersecurity data analysts, to enterprise builders and owners, to noble classroom teachers who empower successive generations, there is a place for you here at Benedict College.

This catalogue provides the latest information about the College’s administrative policies and plans, academic programs, student services and activities, and student-support units. It outlines emerging, innovative, cutting-edge educational programs and initiatives that will shape the current and future at Benedict College, and that embrace our responsibility for shaping the next generation of world leaders.

I continue to ask students and indeed the entire Benedict College “family” to:

achieve more;
dream more;
give more;
learn more;
study more; and strive evermore
to represent #TheBESTofBC.

Please read this catalogue very carefully to learn about the great opportunities that await you at Benedict College. The College will continue to pursue its noble and historic legacy of teaching, research and service to the community as it has done *From its Founding...* and as it will do, *To Our Future!*

MISSION STATEMENT FOR BENEDICT COLLEGE

Benedict College will be a leader in providing transformative learning experiences for a diverse student body, defined by superior cultural and professional competencies that are nurtured and developed by faculty, staff and stakeholders who value innovation, customer service, community and industry engagement.

A VISION FOR BENEDICT COLLEGE

Benedict College is a college where each student's experience in academic, residential and co-curricular activities is transformative and customer-service focused; at the same time, Benedict faculty and staff work in a collaborative, transparent environment where data-based decisions are also girded in compassion.

Benedict College is a place of full-time learning from the classroom, to the playing field, to the residence hall and out into the community where the legacy of "BC" as inclusive, pioneering, and "family" is respected and cherished.

Transformative education, innovation in technology and enterprise, and commitment to community all merge in a dynamic environment where students receive an education that prepares them to enter the global marketplace with exceptional cultural and professional competencies that will empower them to contribute to the sustainability and economic growth of the communities where they live, work and play.

Therefore, Benedict College is not only a power for good in society, but Benedict is committed to providing a transformative learning environment, created by highly trained and equipped professionals, that empowers all students to realize their highest potential.

Catalogue Rights

This catalogue is effective August 10, 2019. It is intended to provide information about the College's operating policies and procedures, academic regulations, and requirements for graduation. Benedict College reserves the right to modify, change, or alter without notice all fees, charges, tuition, expenses, and costs of any kind. In addition, the College reserves the right to add, delete, or change without notice any courses, programs, policies, or procedures contained in this catalogue in order to keep such matters current or to implement the mission of the College. Such changes will be effective at the time designated by the College.

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Analysis and Communication

(Reading, Written Communication, Oral Communication, Information Literacy)

Learning Outcomes	Courses	Credit Hours
<ul style="list-style-type: none"> Students will extract and construct meaning through interaction and involvement with written language. Students will clearly express ideas in appropriate academic language, demonstrating reasoning, an understanding of audience, context, and the mechanics of academic writing in an organized, clear, and coherent manner. Students will use research strategies to identify, locate, evaluate, and effectively and responsibly use and share information. Students will systematically analyze complex real-world topics or issues. Students will develop and deliver purposeful presentations designed to increase knowledge, to foster understanding, or to promote change in the listeners' attitudes, values, beliefs, or behaviors. 	<ul style="list-style-type: none"> ENG 131 Analysis and Argumentation ENG 132 Information Literacy and Research ENG 237 Oral Communication 	9

Quantitative Literacy

(Understanding mathematical processes and their applications)

Learning Outcomes	Courses	Credit Hours
<ul style="list-style-type: none"> Students will reason and solve quantitative problems from a wide array of everyday life situations Students will demonstrate the ability to interpret, analyze, and convey quantitative evidence in a variety of formats (using words, tables, graphs, mathematical equations, etc.). 	<ul style="list-style-type: none"> MATH 132 Gen. College Math I MATH 134 Gen. College Math II <p><u>STEM & SBE Majors:</u></p> <ul style="list-style-type: none"> MATH 138 College Algebra MATH 140 Precalculus MATH 141 Business Calculus MATH 143 Calculus I MATH 144 Calculus II 	<p>6</p> <p>7-8 (STEM/SBE)</p>

Natural Sciences

Learning Outcomes	Courses	Credit Hours
<ul style="list-style-type: none"> Students will collect scientific data, evaluate, and draw conclusions about given problems using the scientific method. 	<u>Non-STEM Majors</u> <ul style="list-style-type: none"> BIO 130 General Biology BIO 110L Gen. Biology Lab CHEM 130 Gen. Chemistry 	4

	<ul style="list-style-type: none">• CHEM 110L Gen. Chem. Lab• ESC 130 Gen. Env. Health Science• ESC 110L Gen EHS Lab• PHYS 140 & PHYS 140L Gen. Earth Science & Lab• PHYS 141& PHYS 141L Physical Science and Lab <p><u>STEM Majors</u></p> <ul style="list-style-type: none">• BIO 137 Principles of Biology I• BIO 117L Prin. of Bio I Lab• ESC 137 Principles of Env. Health Science I• ESC 117L Prin. of EHS I Lab• CHEM 137 Principles of Chemistry I• CHEM 117L Prin. of Chem. I Lab• PHYS 243 & PHYS 143L Prin. of Physics I & Lab	
Health and Wellness		
Learning Outcomes	Courses	(Minimum) Credit Hours
<ul style="list-style-type: none">• Students will apply life-long skills to improve mental and physical wellbeing.	<ul style="list-style-type: none">• Physical Education courses• HE 230 Health Education• Military Science Labs• Marching Band	2
Global and Intercultural Learning (Historical, Religious, Artistic and Political Learning and Languages)		
Learning Outcomes	Courses	Credit Hours
<ul style="list-style-type: none">• Students will apply global and intercultural perspectives in the analysis of historical and cultural events and theoretical frameworks.	<ul style="list-style-type: none">• African American History (Mandatory)• Intermediate-Level Foreign Language (Mandatory) <p>6 hours Chosen from the following options: Literature, Social Sciences, Economics, History, Fine Arts, Religion and Philosophy</p>	12
Personal and Career Development		

<i>(Collegiate Success Skills, Personal Awareness, and Career Exploration)</i>		
Learning Outcomes	Potential Courses	Credit Hours
<ul style="list-style-type: none">Students will increase self-awareness and develop skills critical for collegiate success.Students will demonstrate knowledge of college history, values, and resources.Students will map career pathways and develop essential tools for professional promotion.	<div>BE/CE/ED/FI/HHS/HASS/STEM111 The College Experience I</div> <div>BE/CE/ED/FI/HHS/HASS/STEM112 The College Experience II</div> <div>BE/CE/ED/HHS/HASS/STEM221 Professional Pathways Development 2 SCH</div>	4

REQUIREMENTS

All students at Benedict are required to complete a minimum of thirty-seven to thirty-nine credit hours of General Education requirements based upon their programs of study. Students may also transfer appropriate general education courses. The purposefully designed categories of academic disciplines that comprise the general education requirements provide a basic foundation for students to pursue their majors of choice from the approved offerings.

The Student Learning Outcomes (SLOs) that satisfy requirements of the general education program have been identified as follows:

Analysis and Communication (Reading, written and oral communication, and	
Information literacy	9 sch
Quantitative Literacy (Understanding mathematical processes and their applications)	6-8 sch
Natural Sciences	4 sch
Health and Wellness	2 sch
Global and Intercultural Learning (historical, religious, artistic and political learning and languages	12 sch
Personal and Career Development (Collegiate success, skills, personal awareness, and career exploration)	<u>4 sch</u> 37-39 sch

NOTE: Students who are enrolled in non-STEM and business related majors are required to earned 37 semester credit hours of general education credit while students enrolled in STEM and business related majors are required to earn between 38-39 semester credit hours to satisfy graduation requirements.

GENERAL EDUCATION CURRICULUM

Total (Non-STEM/SBE): 37 hrs

Total (STEM/SBE): 38-39 hrs

Students may satisfy the College's General Education Program by successfully completing the following course selections:

Analysis and Communication	Courses	Credit Hours
<ul style="list-style-type: none"> • Reading, Written Communication, Oral Communication, Information Literacy 	<ul style="list-style-type: none"> • ENG 131 Analysis and Argumentation • ENG 132 Information Literacy and Research • ENG 237 Oral Communication 	9
Quantitative Literacy	Courses	Credit Hours
<ul style="list-style-type: none"> • Understanding mathematical processes and their applications 	<ul style="list-style-type: none"> • MATH 132 Gen. College Math I • MATH 134 Gen. College Math II <p>STEM & SBE Majors:</p> <ul style="list-style-type: none"> • MATH 138 College Algebra • MATH 140 Precalculus • MATH 141 Business Calculus • MATH 143 Calculus I • MATH 144 Calculus II 	6 7-8 (STEM/SBE)
Natural Sciences	Courses	Credit Hours
	<p>Non-STEM Majors</p> <ul style="list-style-type: none"> • BIO 130 General Biology • BIO 110L Gen. Biology Lab • CHEM 130 Gen. Chemistry • CHEM 110L Gen. Chem. Lab • ESC 130 Gen. Env. Health Science • ESC 110L Gen EHS Lab • PHYS 140 & PHYS 140L Gen. Earth Science & Lab • PHYS 141& PHYS 141L Physical Science and Lab <p>STEM Majors</p> <ul style="list-style-type: none"> • BIO 137 Principles of Biology I • BIO 117L Prin. of Bio I Lab • ESC 137 Principles of Env. Health Science I • ESC 117L Prin. of EHS I Lab+++ • CHEM 137 Principles of Chemistry I • CHEM 117L Prin. of Chem. I Lab • PHYS 243 & PHYS 143L Prin. of Physics I & Lab 	4
Health and Wellness	Courses	(Minimum) Credit Hours
<ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> • Physical Education courses • HE 230 Health Education • Military Science Labs 	2

	<ul style="list-style-type: none">• Marching Band	
Global and Intercultural Learning	Courses	Credit Hours
<ul style="list-style-type: none">• Historical, Religious, Artistic, and Political Learning and Languages	<ul style="list-style-type: none">• African American History (Mandatory)• Intermediate-Level Foreign Language (Mandatory) <p>6 hours Chosen from the following options: Literature, Social Sciences, Economics, History, Fine Arts, Religion and Philosophy</p>	12
Personal and Career Development	Potential Courses	Credit Hours
<ul style="list-style-type: none">• Collegiate Success Skills, Personal Awareness, and Career Exploration	BE/CE/ED/FI/HHS/HASS/STEM111 The College Experience I BE/CE/ED/FI/HHS/HASS/STEM112 The College Experience II BE/CE/ED/HHS/HASS/STEM221 Professional Pathways Development 2 SCH	4

Total (Non-STEM/SBE): 37 hrs
Total (STEM/SBE): 38-39 hrs

Students are required to earn a grade of “C” or higher in order to receive credit for the following General Education courses:

- Eng 131 Analysis and Argumentation
- Eng 132 Information Literacy and Research
- Math 132 General College Math I
- Math 134 General College Math II
- Math 138 College Algebra
- Math 140 Precalculus
- Math 141 Business Calculus
- Math 143 Calculus I
- Math 144 Calculus II

All students who have studied French, Spanish, or Arabic in high school will be given the Foreign Language placement test and score at least 60 to determine if they may enroll in FR 233, SP 233, or AR 233 or if they must first take FR 130, or SP 130, or AR 130 as a prerequisite. Students may also receive credit by obtaining a satisfactory score on the DANTES examination or CLEP exam. Students with no previous background in French or Spanish will be required to take the 130 level foreign language course.

**TYRONE ADAM BURROUGHS
SCHOOL OF BUSINESS AND ENTREPRENEURSHIP**

ADMINISTRATION

Dr. Tracy H. Dunn, Interim Dean

DEPARTMENTS

Mr. Melvin Miller, Interim Chair
Business Administration Department

Dr. Victor Oyinbo, Interim Chair
Accounting and Finance Department

The Business Administration Department offers one major with optional concentrations.

- Business Administration with no concentration
- Business Administration with an entrepreneurship concentration
- Business Administration with a management concentration
- Business Administration with a marketing concentration

The Business Administration Department offers six (6) minors.

Business Administration

BA 130	3 sch
ACC 231	3 sch
FIN 330	3 sch
MGT 330	3 sch
MKT 330	3 sch
TOTAL	15 SCH

Business Analytics

BU 333	3 sch
BU 334	3 sch
BU 336	3 sch
BU 433	3 sch
ONE OF THE FOLLOWING:	
BU 431	3 sch
BU 432	3 sch
TOTAL	15 SCH

Entrepreneurship

MGT 338	3 sch
MGT 341	3 sch
MGT 339	3 sch
MGT 333	3 sch

ONE OF THE FOLLOWING:

MKT 339	3 sch
MKT 431	3 sch
MGT 432	3 sch
TOTAL	15 SCH

Management

BA 130	3 sch
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MGT 330	3 sch
MGT 335	3 sch
MGT 430	3 sch
MGT 433	3 sch
TOTAL	15 SCH

Marketing

BA 130	3 sch
MKT 330	3 sch
MKT 337	3 sch
MKT 437	3 sch
MKT 432	3 sch
TOTAL	15 SCH

Supply Chain Management

ISE/SCM 333	3 sch
ISE/SCM 336	3 sch
ISE/SCM 338	3 sch
ISE/SCM 432	3 sch
ISE/SCM 434	3 sch
TOTAL	15 SCH

The Accounting and Finance Department offers two majors.

Accounting
Finance

The Accounting and Finance Department offers two minors.

Accounting

ACC 231	3 sch
ACC 232	3 sch
ACC 335	3 sch
ACC 336	3 sch
ONE OF THE FOLLOWING:	
ACC 433	3 sch
ACC 431	3 sch
ACC 437	3 sch
ACC 432	3 sch
TOTAL	15 SCH

Finance

ACC 231	3 sch
ACC 232	3 sch
FIN 330	3 sch
FIN 333	3 sch
EC 334	3 sch
TOTAL	15 SCH

COURSE DESCRIPTIONS

ACCOUNTING COURSES

ACC 230 Accounting for Entrepreneurs**credit 3 hrs.**

This course teaches the concepts and practices for entrepreneurs and students who plan to start or purchase a business. Students will learn the use of accounting tools for solving business problems, analyzing daily activities and evaluating the financial progress being made by the firm. Students will be trained to think like and take initiatives like entrepreneurs. Students are expected to use appropriate small business solution softwares. The course requires "hands-on" assignments. The teaching pedagogy will also include additive learning. Topics will include accounting for sales, receivables, payables, payroll, and inventory. Others include developing revenue and cash projections, expense estimates for new ventures, small business valuation, cost volume profit analysis, cost behavior, profit plan, and relevant cost analysis, ethical and tax aspects of small businesses. Prerequisites: none

**ACC 231 Principles of Financial Accounting
(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

This course introduces students to the basic principles and concepts of recording, summarizing and reporting financial information. Prerequisites: MATH 138

**ACC 232 Principles of Managerial Accounting
(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

A continuation of Principles of Financial Accounting, with emphasis on accounting problems related to the partnership, corporation, and manufacturing operations. Prerequisite: ACC 231

**ACC 335 Intermediate Accounting I
(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

Intermediate Accounting is a comprehensive course in financial accounting theory and practice. The emphasis of the course is on accounting valuation and reporting of balance sheet accounts. Prerequisite: ACC 232

**ACC 336 Intermediate Accounting II
(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

This course is a continuation of an in-depth coverage of financial accounting theory and application, with emphasis on the accounting valuation and reporting of pensions, leases, stocks, bonds, investments, inter-period tax allocation and other financial topics. Prerequisite: ACC 335

ACC 337 Cost and Management Accounting**credit 3 hrs.**

This course provides an analysis of accounting for manufacturing and service operations. It covers profitability management, job order, process, standard, and Activity Based Costing. It also includes, Management Accounting in a changing environment, capital budgeting decisions and more. Prerequisite: ACC 232

ACC 431 Advanced Topics in Accounting**credit 3 hrs.**

This course integrates Advanced Financial Accounting and Reporting, Advanced Cost and Management Accounting, and other contemporary issues in Accounting. Topics will be selected from the following areas: business combination and consolidation, multinational accounting, evaluating management performance, process management, budgeting, and the importance of analyzing and managing costs, supply chain management, executive compensation, pricing and customer value. Prerequisite: ACC 336

**ACC 432 Accounting Information Systems
(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

A computerized study of systems design, application, internal control, auditing the system, and system security.

**ACC 433 Taxation I
(DESIGNATED SERVICE-LEARNING COURSE).****credit 3 hrs.**

This course is an analysis of the basic concepts of federal income tax laws as they apply to individuals, corporations, and partnerships. Preparation of individual and corporate income tax returns is emphasized.

ACC 434 Taxation II**credit 3 hrs.**

This course is an analysis of federal and state tax laws relating to estates, gifts, trusts, corporate distributions, liquidations, and reorganizations.

ACC 435 Auditing**credit 3 hrs.****(DESIGNATED SERVICE-LEARNING COURSE)**

This course is a study of generally accepted auditing standards and the procedures used in conducting a financial statement audit. Ethics, legal liability of accountants, and other issues related to external and internal auditing are presented. Prerequisite: ACC 232

ACC 437 Internal Auditing**credit 3 hrs.**

This course teaches the skills required for evaluating operational efficiency, adherence to corporate policies, and government regulations. It also covers the practice and theory of internal auditing, the planning and organizing of the internal audit department and how it links with the external audit. Problem solving, communication, and teamwork skills will be emphasized. Cases, guest lecturers from internal auditing organizations and sampling techniques will be utilized. Prerequisite: ACC 336

ACC 438 C.P.A. Review**credit 3 hrs.**

This course employs a practical reinforcement of accounting principles used in solving problems of the type confronting C.P.A. candidates. Prerequisites: ACC 336, ACC 433 and ACC 435

BUSINESS ADMINISTRATION COURSES**BE 111, and 112 College Experience I and II****credit 1 hr. ea.**

(Course descriptions are located in the Academic Department Cross-Disciplinary Courses section of the catalogue.)

BE 221 Professional Development Pathways

(Course descriptions are located in the Academic Department Cross-Disciplinary Courses section of the catalogue.)

credit 2 hrs.**BA 130 Introduction to Business****credit 3 hrs.****(DESIGNATED SERVICE-LEARNING COURSE)**

This course will focus on expanding students' business and non-business vocabulary. The course will also introduce internet technology and search strategies. Prerequisites: none

BA 230 Business Application Software**credit 3 hrs.****(DESIGNATED SERVICE-LEARNING COURSE)**

This course focuses on selected applications of Microsoft suites particularly Excel, PowerPoint and Access. The instructor will use problem-solving assignments to engage students in experiential learning.

BA 231 Business Communication**credit 3 hrs.****(DESIGNATED SERVICE-LEARNING COURSE)**

The course covers the elements of written and oral business communication. Grammatical correctness is emphasized. In addition to applying basic language skills, students are introduced to basic research methodology used in business. Prerequisites: ENG 135; ENG 137

BA 233 Math for Business and Economics**credit 3 hrs.**

This course is designed to provide students with a foundation of the mathematical skills that are normally required for success in studying an array of topics in business and economics. Course topics include simultaneous equations; coordinate geometry, graphing equations, differentiation, integration, maxima, minima, and points of inflection with applications in business and economics. Students will find that mastery of a calculator like TI83 is very beneficial. Prerequisite: MATH 140; MATH 141

BA 235 Business Statistics**credit 3 hrs.**

The course is an introduction to statistical analysis, including measures of central tendency and variability, presenting and analyzing data, probability theory, discrete and continuous distribution, normal distribution, estimation of parameters, chi-square, regression, and correlation analysis with the application of these techniques to business situations. Prerequisites: MATH 138; MATH 140; MATH 141

BA 237 Business Law**credit 3 hrs.****(DESIGNATED SERVICE-LEARNING COURSE)**

This is a course in the elements of commercial law as it applies to individual business firms. Special topics include contracts, bailments, insurance, credit instruments, and agencies. The case method is emphasized. Prerequisite: BA 130

BA 308 Graduate Business School Preparation Strategies**credit 0 hrs.**

This course will include final readying of students for graduate school. The course will address such issues like the GMAT, and abilities for graduate school and associated professional career choices, and other curricular and associated matters that alert and ready students for placement opportunities. Prerequisites: MATH 130, MATH 140, MATH 141, ENG 135, ENG 231, ENG 232

BA 330 Quantitative Methods**credit 3 hrs.**

The course familiarizes the student with quantitative techniques used in decision-making. It covers probability, tests of significance, linear programming and Markov analysis, queuing theory, inventory models, and basic calculus with business applications. Prerequisite: BA 235

BA 331 Research Project I**credit 3 hrs.**

This course provides students with the opportunity to develop a research project. This is the first of two courses. In this course, students will learn how to conduct research. Students will learn to write for business and develop a deeper understanding of business concepts. PHE 337 Research Methods or SBS 330 Writing and Presenting in Social Sciences are substitutes for this course.

BA 332 Research Project II**credit 3 hrs.**

Students in this course will review, edit, and finalize the components of their research project. Prerequisite: BA 331 or PHE 337 or SBS 330

BA 431 Career Preparation Strategies**credit 3 hrs.**

This course provides professional development that focuses on employment and graduate school options. The course also includes review of business concepts to enhance analytical thinking. The ETS exam serves as the final exam in this course.

BA 432 Senior Capstone**credit 3 hrs.**

In this course, students will finalize and present their senior project. Additionally, students will be assigned a real-world business case in which they will use their knowledge and skills to develop solutions for a real-work business case. Prerequisites: BA 331, BA 332

BA 433 International Business**credit 3 hrs.**

This course covers international and multinational business firm; differentiation from domestic business firm; theories of international trade; cultural, legal, political, economic religious differences affecting international marketing; management challenges in an international environment; and exchange rate and balance of payments determinants. Prerequisites: FIN 330; MKT 330; MGT 330

BA 440 Internship**credit 3 hrs.**

Internship integrates classroom study with planned and supervised experiences in business, government, and social institutions outside of formal classroom environments. Fieldwork must be experience-appropriate and lend themselves to direct supervision by an assigned coordinator. If fieldwork spaces cannot be secured off campus, positions at the College will be used to provide the equivalent experiences necessary to fulfill this requirement. Additionally, a research paper will be required.

BU 333 Introduction to Business Analytics**credit 3 hrs.**

This course introduces mathematical models that can be used to improve decision-making within an organization. Topics will include analytical tools such as optimization, simulation, and statistical data analysis for problem solving and decision support in all areas of business, including supply chain network, operations, finance, economics, and marketing. Students will make extensive use of Excel and/or R/Python and several spreadsheet-based add-ins to solve real business problems, improve business processes, and help make important business decisions.

BU 334 Programming for Business Analytics (R and SQL)**credit 3 hrs.**

This course introduces some programming fundamentals useful for data analytics. Students will learn how to use the structured query language (SQL) to work with relational databases and use the R programming language for acquiring and cleaning data and conducting statistical data analysis. All applications are business-oriented.

BU 336 Predictive Analytics for Business: Classification and Regression **credit 3 hrs.**

This course introduces students to the fundamental ideas of the data mining methods, classification and regression trees and logistic regression. The emphasis is understanding the application of methods rather than on mathematical and computational foundations. All application are business-oriented.

BU 431 Prescriptive Analytics for Business: Statistical Inference**Optimization and Simulation****credit 3 hrs.**

Prescriptive Analytics is aimed at identifying the best possible action to take given the constraints and the business objective. Learn about design of experiments and hypothesis testing for guiding business decisions.

BU 432 Predictive Analysis for Business: Time Series Analysis**credit 3 hrs.**

This course introduces techniques for modeling and analyzing time series data. We will study stationary processes, ARIMA models, non-stationary processes, time series forecasting. All applications are business-oriented.

BU 433 Data Visualization and Communication**credit 3 hrs.**

Sharing insights from an analysis is an important part of working with data. This course covers best practice for data visualizations and telling stories to guide business decisions using data.

ECONOMICS COURSES**EC 130 Introduction to Economics****credit 3 hrs.**

A course designed to acquaint students with the operation of American Economics System with a concise presentation of Economic Theory, Policy and Personal Finance concepts with real world applications to problems of inflation, unemployment, poverty, discrimination, globalization and banking.

EC 230 Macroeconomics**credit 3 hrs.****(DESIGNATED SERVICE-LEARNING COURSE)**

The course is an introduction to the principles of modern economics. The material covered deals with the principles of macroeconomics—the economics of a state, nation, or any other large aggregate unit. Topics covered are the determination of national income; the effect of savings, consumption, government spending, and investment on national income; and macroeconomic policies to combat unemployment and inflation. Prerequisite: BA 130

EC 231 Microeconomics**credit 3 hrs.****(DESIGNATED SERVICE-LEARNING COURSE)**

The material covered in this course encompasses the subject matter of microeconomics—the economics of the individual business firm, household, or person. Specific topics covered are the central problems faced by the market; demand and supply analysis; the determination of prices; the product and factor markets under the conditions of perfect and imperfect competition; and analysis of private and social costs. Prerequisite: BA 130

EC 331 Intermediate Macroeconomic Theory**credit 3 hrs.****(DESIGNATED SERVICE-LEARNING COURSE)**

The course is a study of monetary and fiscal theory at the intermediate level. Topics such as the quantity theory of money and Keynesian economic analysis are covered. Tools of macroeconomic analysis are used to analyze the problems of unemployment, inflation, economic growth, and the balance of payments. Prerequisites: EC 230 and EC 231

EC 332 Intermediate Microeconomic Theory**credit 3 hrs.****(DESIGNATED SERVICE-LEARNING COURSE)**

The course emphasizes price theory at the intermediate level. Specific topics covered are indifference curves, marginal utility, cost curves, and product and factor markets. The tools of microeconomic analysis will be used to analyze the problems of environment, income distribution, and economic welfare. Prerequisites: EC 230 and EC 231

EC 333 Public Finance**credit 3 hrs.**

The course is a study of the principles of government expenditures, taxes, credits, and their effects on resources allocations, income distribution, and economic stability. Special emphasis is given to federal, state, and local relations in revenue expenditures. Prerequisites: EC 230 and EC 231

EC 334 Banking and Monetary Theory**credit 3 hrs.**

The course examines the role of money and credit in the national economy, the development of monetary and fiscal policies and related problems, and the link between theories and central bank and treasury operations. Prerequisites: EC 230; EC 231; FIN 330

EC 335 Intro to Econometrics**credit 3 hrs**

Topics covered include identification, measurement, specification, estimation, and interpretation of

functional relationships through single equation least square techniques, use of lagged and dummy variables in regression and economic modeling.

EC 431 Urban Economics**credit 3 hrs.****(DESIGNATED SERVICE-LEARNING COURSE)**

The course analyzes present-day socio-economic programs and policies in light of factors such as land use, education, housing, resources, pollution, transportation, population, poverty, and discrimination. The causes, effects, and solutions of present-day problems for metropolitan areas are emphasized. Prerequisites: EC 230 and EC 231

EC 432 Economics of Labor**credit 3 hrs****(DESIGNATED SERVICE-LEARNING COURSE)**

The course analyzes the forces which act upon the level of wages and employment and the role of unions, business, and government in shaping these forces. The course investigates the attitudes and actions of unions, businesses, and government with emphasis on discrimination in the employment of minority workers. A brief history of the organized labor movement in the United States is also included. Prerequisites: EC 230 and EC 231

EC 434 Seminar on Current Economic Problems**credit 3 hrs**

The course covers topics such as poverty, unemployment, income inequalities, economics of race, gender and discrimination and other contemporary problems. Prerequisite: Permission of instructor.

EC 435 Managerial Economics**credit 3 hrs.**

The applications of economic theory to the problems of management are covered. The tools of economic theory used by business managers in their decision-making process are analyzed. Topics include cost and profit analysis, capital budgeting, and supply and demand elasticities. Prerequisites: EC 230 and EC 231

EC 436 Economics of Development**credit 3 hrs.**

The course is designed to acquaint students with the theories on the rising level of economic activity in the underdeveloped countries of Africa, Asia, and Latin America. The policies for economic development that have been employed in less developed countries are surveyed and analyzed. The economic relations of less developed countries with the developed countries as well as with other less developed countries are analyzed. Prerequisites: EC 230 and EC 231

FINANCE COURSES**FIN 330 Principles of Finance****credit 3 hrs.****(DESIGNATED SERVICE-LEARNING COURSE)**

The course analyzes the activities involved in raising and administering funds used in business. The problems of planning for and financing recurring long- and short-term needs are stressed. Attention is also given to intermittent duties and equally important matters such as those associated with security, insurance, mergers, and financial reorganizations. Prerequisite: BA130

FIN 333 Personal Finance**credit 3 hrs.**

The course will focus on an overview of the consumer and his/her need for informed personal financial decisions and judgments. Topics include money management and planning, budgeting, tax planning, credit and borrowing, saving and investment, housing, taxes, insurance, and retirement and estate planning.

FIN 338 Risk and Insurance**credit 3 hrs.**

The course is a study of the theory of speculative and pure risk confronting the individual and the firm and of the appropriate means of handling risks. Methods studied include loss prevention, risk retention, and self-insurance. Specific types of insurance are studied, as well as the legal liability and its role both in the private and public sectors. Prerequisite: FIN 330

FIN 430 Investment Management**credit 3 hrs.**

The course is a study of investment and portfolio analysis and presents a conceptual and analytical framework for formulating both individual and corporate investment policies, analyzing securities, and constructing portfolios. Prerequisite: FIN 330

FIN 433 Real Estate: Principles and Practices**credit 3 hrs.**

The course is an analytical study of the technical and legal aspects of real property ownership; the factors which determine the economic value and productivity of real estate; governmental regulations applicable to land utilization; the nature of the real estate business; and the initial steps required for

transfer of title, financing, and leasing. Prerequisite: FIN 330

FIN 437 Corporate Finance**credit 3 hrs.**

The course seeks to enlarge students' knowledge of financial analysis. It considers issues involved in the fields of dividend policy, capital budgeting, cost of capital, and capital structure of the firm. Prerequisite: FIN 330

MANAGEMENT COURSES**MGT 330 Principles of Management****credit 3 hrs.****(DESIGNATED SERVICE-LEARNING COURSE)**

The primary focus of this course includes the theories, concepts, and principles necessary for effectively managing the various functional activities inherent in management and the management process and the issues and problems confronting the modern manager. The course combines the familiar and traditional analysis of the management process and the presentation of management principles with the newer system concepts.

MGT 332 Business Information Systems**credit 3 hrs.**

Provides an understanding of the importance of computer-based information in the success of the firm. Emphasis is on the role of information systems within each of the functional areas of business. Major concepts include data management and decision support. Prerequisite: MGT 330

MGT 333 Funding Sources for Entrepreneurs**credit 3 hrs.**

This course focuses on acquiring money to finance the startup and growth of a venture. It covers various financing methods and mechanisms available to entrepreneurs. Firm valuation and initial public offerings are also explored. Prerequisite: MGT 338

MGT 335 Human Resources Management**credit 3 hrs.****(DESIGNATED SERVICE-LEARNING COURSE)**

The course is a study of managerial policies, techniques, and methods, which influence the organization of work, selection, hiring, placing, training, and supervision of workers. The management structure is reviewed in order to ascertain the position of the personnel division relative to its authority and responsibility within the business enterprise. Prerequisite: MGT 330

MGT 336 Advanced Human Resources**credit 3 hrs.**

Human Resource Management (HRM) operates in an ever-changing environment. HRM must respond to external organizational factors (e.g., technology advancements, globalization) as well as internal organizational factors (e.g., ethical decision-making). Therefore, this course addresses the various components of HRM including compensation, training, hiring, supervision and development of employees. These issues are covered at a more advanced level, using cases and simulation exercises. Prerequisites: MGT 335; MGT 330

MGT 338 Entrepreneurship**credit 3 hrs.**

Characteristics of entrepreneurs, types and structure of enterprises, proprietorships, partnerships and corporations, franchises, minorities and women in business, creating business plans, market strategies, competitive analysis, design, operations and management plan, financing equity and venture capital; debt financing, banks, finance companies and government loans. Prerequisites: MGT 330; FIN 330; MKT 330

**MGT 339 Ethical, Legal and Environmental Considerations
in Entrepreneurship****credit 3 hrs.**

The course curriculum covers the major legal areas required of a general manager: organizational structure, tax, corporate and individual liability, human resources, business licenses and environmental compliance concerns. The course will examine the effects of taxation on business organizations, including capital structure policies. Basic knowledge of the functions within a business, mastery of analytic and negotiating techniques, the ability to understand the external environment and formulate sound strategies, and the skills to make the transition from individual contributor to a manager and then to a leader. Prerequisites: BA 130, BA 237

**MGT 340 Effective Presentation and Communication for the
Entrepreneur****credit 3 hrs.**

The course will focus on the role of influence and persuasion through various methods to include the preparation of business plans, grants and requests for funding proposals. In addition to formal theoretical coursework as negotiations and communication students will practice presentations using various

software tools including but not limited to PowerPoint, Excel and Access. Students will be required to practice role-plays and impromptu speaking exercises to build oral communications skills. Prerequisites: BA 130, BA 231

MGT 341 Strategic Management & Accounting for Entrepreneurs **credit 3 hrs.**

The course explores strategic management and accounting from the perspective of the entrepreneur. This course focuses on the application of current management and accounting systems to include but not limited to QuickBooks, Payroll software (ADP), Planning, Controlling and Management by Objectives principles. Students will explore and develop through application and practicums various strategic management decisions, which are used to sustain growth and profitability in competitive markets. Prerequisites: BA 130, ACC 231

MGT 430 Contemporary Issues in Management **credit 3 hrs.**
(DESIGNATED SERVICE-LEARNING COURSE)

In-depth examination of advanced and current business topics in management. Topics may vary in keeping with developments in the management profession and interest of the faculty. An advanced paper will be required. Prerequisite: MGT 335, MGT 330

MGT 431 Labor Relations **credit 3 hrs.**

This course examines labor laws as well as the issues surrounding labor organizations and management working to resolve workplace conflicts. Prerequisites: MGT 335, MGT 330

MGT 432 Negotiation Fundamentals **credit 3 hrs.**

In this course, students will learn different negotiation strategies and how to apply them to simple buyer-seller bargaining, labor-management negotiations as well as other more complex negotiations.

MGT 433 Organizational Theory and Behavior **credit 3 hrs.**

The course presents an integration of the internal structure of the behavioral aspects of a business organization. Emphasis is placed on the study of behavioral patterns necessary for effective management of business activity. Extensive use is made of case studies. Prerequisite: MGT 330, MGT 335

MGT 436 Production Management **credit 3 hrs.**

A survey of the major operational functions of organizations, the course emphasizes the identification of major problem areas associated with these functions and the development of concepts and decision processes for dealing with problems. This course stresses the relevance of production in all organizations. Prerequisite: MGT 330, BA 330, MGT 335, BA 235

MGT 437 Business Policy **credit 3 hrs.**
(DESIGNATED SERVICE-LEARNING COURSE)

The course is a study of the formulation and application of functionally integrated business policy by top management. Decision making in the face of changing conditions is emphasized. Extensive use is made of case studies. Prerequisite: MKT 330, FIN 330

MGT 439 Management and Organizations **credit 3 hrs.**

This course will explore how organizational leaders develop winning strategies and then design their organizations in a way that aligns structures, social relationships, tasks, human resource practices, and people to achieve those strategies.

MARKETING COURSES

MKT 330 Principles of Marketing **credit 3 hrs.**
(DESIGNATED SERVICE-LEARNING COURSE)

The course takes an integrated, analytical approach to both macro- and micro-marketing problems. Primary concern is focused on micro-marketing. Specifically, emphasis is given to product, promotion, distribution, and pricing from the perspective of the firm. Prerequisite: BA 130

MKT 331 Marketing Communication **credit 3 hrs.**

The course is a study of the promotion mix of a firm. It builds a rigorous base of consumer psychology and then proceeds to the advertising, personal selling, and other communication methods, which are treated as variables for use alone, or in combination, to communicate the want-satisfying attributes of products and services. The approach throughout is to develop fundamental considerations as background and then focus on managerial issues and problems. Prerequisite: MKT 330

MKT 332 Services Marketing **credit 3 hrs.**

This subject is concerned with an in-depth analysis of the marketing techniques that apply to
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service organizations and industries. Students develop a firm understanding of key challenges and issues associated with marketing in a services environment; gain a broad understanding of the interaction between marketing and management within a service organization; and became familiar with issues in developing and assessing service quality. Prerequisite: MKT 330

MKT 333 Principles of Marketing Research**credit 3 hrs.**

This course is a study of research methods and procedures used in the marketing process. Particular emphasis is given to the sources of market data and the relationship of marketing research to the policies and functions of the business enterprise. Prerequisites: MKT 330; BA 235

MKT 334 Marketing Channels**credit 3 hrs.**

This course includes the study of the structure, functions, and interactions of marketing channels. Emphasis is placed on wholesaling, retailing, and the flow of economic goods through these areas. Prerequisite: MKT 330

MKT 335 Statistical Method for Marketing Research**credit 3 hrs.**

Students will apply probability and basic statistical methods (analysis of variance, regression, and chi-square tests) to solve marketing research problems. Prerequisite: BA 235

MKT 337 Consumer Behavior**credits 3 hrs.**

This course is designed to define, discuss, and apply the psychological, sociological, economic and anthropological influences on the purchasing and the consumption of goods and services by the ultimate consumer. It considers the consumer's decision process as well as the effects of both internal and external factors upon consumer purchasing behavior. Prerequisite: MKT 330

MKT 339 Internet Marketing**credit 3 hrs.**

Students will learn how to use the internet to enhance the marketing strategies of organizations. Students are expected to understand how to develop an internet marketing plan. The course will utilize online computer exercises to introduce website design and development. Prerequisite: MKT 330

**MKT 430 Contemporary Issues in Marketing
(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

This course examines areas that are of topical concern in marketing. The purpose of the course is to familiarize students with current issues in the field of marketing. New and emerging theoretical as well as practical applications of marketing are the cornerstones of this course. Prerequisite: MKT 330

MKT 431 Personal Selling and Sales Management**credit 3 hrs.**

This course focuses on developing skills required for a successful career in sales. The course will emphasize oral presentation skills through extensive role-playing. Additionally, students will learn how to develop and manage relationships with clients. The course will also highlight the activities required for successful sales force management (e.g., territory design, leadership development, motivation, and cost analysis). Prerequisites: MKT 330, BA 130, BA 231

**MKT 432 Marketing Research
(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

The course is a study of research methods and procedures used in the marketing process. Particular emphasis is given to the sources of market data and the relationship of marketing research to the policies and functions of the business enterprise. Prerequisite: MKT 337; BA 330

MKT 433 Marketing Research Project**credit 3 hrs.**

In this course, students will complete a marketing research project. Prerequisites: MKT 330, MKT 432

MKT 435 Qualitative Research in Marketing**credit 3 hrs.**

This course trains students in the various techniques of conducting qualitative marketing research. Students will practice using interviewing and observation techniques to collect data. Prerequisite: MKT 432

MKT 437 Marketing Management**credit 3 hrs.****(DESIGNATED SERVICE-LEARNING COURSE)**

The course covers analysis, planning, and control of the marketing function. Emphasis is placed on development of a marketing plan. This is accomplished through a series class discussions and homework assignments. Prerequisite: MKT 337.

SUPPLY CHAIN MANAGEMENT COURSES**ISE/SCM 333 Intro to Supply Chain Management****credit 3 hrs.**

Design and management of systems that coordinate information and material flows within and between firms in a supply chain. It covers topics such as sourcing, inventory management, and transportation, and multi-criteria decision making. Prerequisite: MATH 141; MATH 143; instructor permission

ISE/SCM 336 Production and Operations Management I**credit 3 hrs.**

Fundamentals of forecasting demand, scheduling production, and controlling the movement and storage of material associated with production are studied. State-of-the-art manufacturing techniques are discussed. Forecasting techniques, inventory analysis, master production scheduling, material and capacity requirements, planning and scheduling methods. Prerequisite: MATH 141; MATH 143; instructor permission

ISE 338/SCM 338 Supply Chain Inventory Management**credit 3 hrs.**

Fundamentals of forecasting demand, scheduling production, and controlling the movement and storage of material associated with production are studied. State-of-the-art manufacturing techniques are discussed. Forecasting techniques, inventory analysis, master production scheduling, material and capacity requirements, planning and scheduling methods. Prerequisite: MATH 143; MATH 141; instructor permission

ISE/SCM 431 Facility Location and Planning**credit 3 hrs.**

Study of the principles and techniques of facility planning and design. Includes quantitative techniques for evaluation of facility design for better manufacturing, product flow, distribution, and services. Plant layout problem, computerized layout planning, single facility location problems, storage systems layout, multi-facility location problems, and network problems. Prerequisite: MATH 143; MATH 141; instructor permission

ISE/SCM 432 Production and Operations Management II**credit 3 hrs.**

Application of quantitative and heuristic methods to problems of production, material, and capacity planning. Mathematical models for inventory systems, sequencing and scheduling. Just-in-Time (JIT) manufacturing. Prerequisite: MATH 143; MATH 141; instructor permission

ISE 437/SCM 433 Logistics Management**credit 3 hrs.**

This course presents methodologies for design and storage of materials and goods, and movement of people and goods. Topics include forecasting logistics requirements, locating facilities, supplier selection, warehouse management, freight transport, and transportation networks. Prerequisite: MATH 143; MATH 141; instructor permission

SCM 434 Project Management**credit 3 hrs.**

As a business practice, project management helps organizations with a structured approach to accomplishing work and meeting strategic goals. More and more organizations now manage by projects and, as a result, the profession of project management has gained prominence. Students in this course focus on the latest concepts in project management and can gain the knowledge and skills needed to successfully manage projects as a project management professional. Students in this course focus on the soft skills that a professional project manager needs to effectively manage and communicate with internal and external project stakeholders. Topics include the major Project Management Knowledge Areas: Logistics & Supply Chain Management, Inventory, and Production & Operations Management.

PROGRAM OF STUDY IN BUSINESS ADMINISTRATION

FRESHMAN YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
ENG 131	Analysis & Argumentation	3	ENG 132	Information, Literacy & Research	3
MATH 138	College Algebra	3	MATH 140/141	Precalculus or Bus. Calculus	4
	Natural Sciences	4		Global & Intercultural Learning	3
*BA 130	Introduction to Business	3		Global & Intercultural Learning	3
	Health and Wellness	2	HIST 130	Intro to Afr. American History	3
BE 111	The College Experience I	1	BE 112	The College Experience II	1
Total		16	Total		17

SOPHOMORE YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
ENG 237	Oral Communication	3	*BA 231	Business Communication	3
SS 232	Critical Thinking	3	*BA 237	Business Law	3
BA235/MATH236	Bus Statistics/Prob & Stats	3		Intermediate Foreign Language	3
*ACC 231	Prin. of Financial Accounting	3	*BA 230	Business Application Software	3
EC 231	Microeconomics	3	*ACC 232	Prin. of Managerial Accounting	3
BE 221	Prof. Pathways Development	2	EC 230	Macroeconomics	3
Total		17	Total		18

JUNIOR YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
*BA 331	Research Project I	3	*BA 332	Research Project II	3
*MKT 330	Principles of Marketing	3	*BA 330	Quantitative Methods	3
*	Business Elective	3	*	Business Elective	3
*MGT 330	Principles of Management	3	*	Business Elective	3
*FIN 330	Principles of Finance	3	ENG 238	Adv. Speech Communication	3
Total		15	Total		15

SENIOR YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
*BA 433	International Business	3	*MGT 437	Business Policy	3
*	Business Elective	3	*	Business Elective	3
*	Business Elective	3	*	Business Elective	3
*	Business Elective	3	*BA 432	Senior Capstone	3
*BA 431	Career Preparation Strategies	3	*BA 440	Internship	3
Total		15	Total		15

Total SCH 128

SCH in Major* 75

*Major courses require a "C" or better.

PROGRAM OF STUDY IN BUSINESS ADMINISTRATION

Concentration: Management

FRESHMAN YEAR

<i>First Semester</i>			<i>SCH</i>	<i>Second Semester</i>			<i>SCH</i>
ENG 131	Analysis & Argumentation	3		ENG 132	Information, Literacy & Research	3	
MATH 138	College Algebra	3		MATH 140/141	Precalculus or Bus. Calculus	4	
	Natural Sciences	4			Global & Intercultural Learning	3	
*BA 130	Introduction to Business	3			Global & Intercultural Learning	3	
	Health and Wellness	2		HIST 130	Intro to Afr. American History	3	
BE 111	The College Experience I	1		BE 112	The College Experience II	1	
Total			16	Total			17

SOPHOMORE YEAR

<i>First Semester</i>			<i>SCH</i>	<i>Second Semester</i>			<i>SCH</i>
ENG 237	Oral Communication	3		*BA 231	Business Communication	3	
SS 232	Critical Thinking	3		*BA 237	Business Law	3	
BA235/MATH236	Bus Statistics/Prob & Stats	3			Intermediate Foreign Language	3	
*ACC 231	Prin. of Financial Accounting	3		*BA 230	Business Application Software	3	
EC 231	Microeconomics	3		*ACC 232	Prin. of Managerial Accounting	3	
BE 221	Prof. Pathways Development	2		EC 230	Macroeconomics	3	
Total			17	Total			18

JUNIOR YEAR

<i>First Semester</i>			<i>SCH</i>	<i>Second Semester</i>			<i>SCH</i>
*BA 331	Research Project I	3		*BA 332	Research Project II	3	
*MKT 330	Principles of Marketing	3		*BA 330	Quantitative Methods	3	
*	Business Elective	3		*	Business Elective	3	
*MGT 330	Principles of Management	3		*MGT 335	Human Resource Mgt	3	
*FIN 330	Principles of Finance	3		ENG 238	Adv. Speech Communication	3	
Total			15	Total			15

SENIOR YEAR

<i>First Semester</i>			<i>SCH</i>	<i>Second Semester</i>			<i>SCH</i>
*BA 433	International Business	3		*MGT 437	Business Policy	3	
*MGT 430	Contemp. Issues in Mgt	3		*	Business Elective	3	
*MGT 433	Organizational Theory	3		*MGT 436	Production Management	3	
*	Business Elective	3		*BA 432	Senior Capstone	3	
*BA 431	Career Preparation Strategies	3		*BA 440	Internship	3	
Total			15	Total			15

Total SCH 128

SCH in Major* 75

*Major courses require a "C" or better.

PROGRAM OF STUDY IN BUSINESS ADMINISTRATION

Concentration: Marketing

FRESHMAN YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
ENG 131	Analysis & Argumentation	3	ENG 132	Information, Literacy & Research	3
MATH 138	College Algebra	3	MATH 140/141	Precalculus or Bus. Calculus	4
	Natural Sciences	4		Global & Intercultural Learning	3
*BA 130	Introduction to Business	3		Global & Intercultural Learning	3
	Health and Wellness	2	HIST 130	Intro to Afr. American History	3
BE 111	The College Experience I	1	BE 112	The College Experience II	1
Total		16	Total		17

SOPHOMORE YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
ENG 237	Oral Communication	3	*BA 231	Business Communication	3
SS 232	Critical Thinking	3	*BA 237	Business Law	3
BA235/MATH236	Bus Statistics/Prob & Stats	3		Intermediate Foreign Language	3
*ACC 231	Prin. of Financial Accounting	3	*BA 230	Business Application Software	3
EC 231	Microeconomics	3	*ACC 232	Prin. of Managerial Accounting	3
BE 221	Prof. Pathways Development	2	EC 230	Macroeconomics	3
Total		17	Total		18

JUNIOR YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
*BA 331	Research Project I	3	*BA 332	Research Project II	3
*MKT 330	Principles of Marketing	3	*BA 330	Quantitative Methods	3
*	Business Elective	3	*	Business Elective	3
*MGT 330	Principles of Management	3	*MKT 337	Consumer Behavior	3
*FIN 330	Principles of Finance	3	ENG 238	Adv. Speech Communication	3
Total		15	Total		15

SENIOR YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
*BA 433	International Business	3	*MGT 437	Business Policy	3
*MKT 430	Contemp. Issues in Marketing	3	*	Business Elective	3
*MKT 437	Marketing Management	3	*MKT 432	Marketing Research	3
*	Business Elective	3	*BA 432	Senior Capstone	3
*BA 431	Career Preparation Strategies	3	*BA 440	Internship	3
Total		15	Total		15

Total SCH 128

SCH in Major* 75

*Major courses require a "C" or better.

PROGRAM OF STUDY IN BUSINESS ADMINISTRATION

Concentration: Entrepreneurship

FRESHMAN YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
ENG 131	Analysis & Argumentation	3	ENG 132	Information, Literacy & Research	3
MATH 138	College Algebra	3	MATH 140/141	Precalculus or Bus. Calculus	4
	Natural Sciences	4		Global & Intercultural Learning	3
*BA 130	Introduction to Business	3		Global & Intercultural Learning	3
	Health and Wellness	2	HIST 130	Intro to Afr. American History	3
BE 111	The College Experience I	1	BE 112	The College Experience II	1
Total		16	Total		17

SOPHOMORE YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
ENG 237	Oral Communication	3	*BA 231	Business Communication	3
SS 232	Critical Thinking	3	*BA 237	Business Law	3
BA235/MATH236	Bus Statistics/Prob & Stats	3		Intermediate Foreign Language	3
*ACC 231	Prin. of Financial Accounting	3	*BA 230	Business Application Software	3
EC 231	Microeconomics	3	*ACC 232	Prin. of Managerial Accounting	3
BE 221	Prof. Pathways Development	2	EC 230	Macroeconomics	3
Total		17	Total		18

JUNIOR YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
*BA 331	Research Project I	3	*BA 332	Research Project II	3
*MKT 330	Principles of Marketing	3	*BA 330	Quantitative Methods	3
*	Business Elective	3	*MGT 338	Entrepreneurship	3
*MGT 330	Principles of Management	3	*MGT 333	Funding Sources for Entrepren.	3
*FIN 330	Principles of Finance	3	ENG 238	Adv. Speech Communication	3
Total		15	Total		15

SENIOR YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
*BA 433	International Business	3	*MGT 437	Business Policy	3
*MKT 339	Internet Marketing	3	*MKT 431	Personal Selling	3
*	Business Elective	3	*MGT 432	Negotiation Fundamentals	3
*	Business Elective	3	*BA 432	Senior Capstone	3
*BA 431	Career Preparation Strategies	3	*BA 440	Internship	3
Total		15	Total		15

Total SCH 128

SCH in Major* 75

*Major courses require a "C" or better.

PROGRAM OF STUDY IN ACCOUNTING

FRESHMAN YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
ENG 131	Analysis & Argumentation	3	ENG 132	Information, Literacy & Research	3
MATH 138	College Algebra	3	MATH 140/141	Precalculus or Bus. Calculus	4
	Natural Sciences	4		Global & Intercultural Learning	3
*BA 130	Introduction to Business	3		Global & Intercultural Learning	3
	Health and Wellness	2	HIST 130	Intro to Afr. American History	3
BE 111	The College Experience I	1	BE 112	The College Experience II	1
Total		16	Total		17

SOPHOMORE YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
ENG 237	Oral Communication	3	*BA 231	Business Communication	3
SS 232	Critical Thinking	3	*BA 237	Business Law	3
BA235/MATH236	Bus Statistics/Prob & Stats	3		Intermediate Foreign Language	3
*ACC 231	Prin. of Financial Accounting	3	*BA 230	Business Application Software	3
EC 231	Microeconomics	3	*ACC 232	Prin. of Managerial Accounting	3
BE 221	Prof. Pathways Development	2	EC 230	Macroeconomics	3
Total		17	Total		18

JUNIOR YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
*BA 331	Research Project I	3	*BA 332	Research Project II	3
*MKT 330	Principles of Marketing	3	*BA 330	Quantitative Methods	3
*ACC 335	Intermediate Accounting I	3	*ACC 336	Intermediate Accounting II	3
*MGT 330	Principles of Management	3	*ACC 337	Cost & Mgmt Accounting	3
*FIN 330	Principles of Finance	3	ENG 238	Adv. Speech Communication	3
Total		15	Total		15

SENIOR YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
*BA 433	International Business	3	*MGT 437	Business Policy	3
*ACC 433	Taxation I	3	*ACC 432	Accounting Info Systems	3
*ACC 435	Auditing	3	*ACC 437	Internal Auditing	3
*ACC 431	Adv. Topics in Accounting	3	*BA 432	Senior Capstone	3
*BA 431	Career Preparation Strategies	3	*BA 440	Internship	3
Total		15	Total		15

Total SCH 128

SCH in Major* 75

*Major courses require a "C" or better.

PROGRAM OF STUDY IN FINANCE

FRESHMAN YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
ENG 131	Analysis & Argumentation	3	ENG 132	Information, Literacy & Research	3
MATH 138	College Algebra	3	MATH 140/141	Precalculus or Bus. Calculus	4
	Natural Sciences	4		Global & Intercultural Learning	3
*BA 130	Introduction to Business	3		Global & Intercultural Learning	3
	Health and Wellness	2	HIST 130	Intro to Afr. American History	3
BE 111	The College Experience I	1	BE 112	The College Experience II	1
Total		16	Total		17

SOPHOMORE YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
ENG 237	Oral Communication	3	*BA 231	Business Communication	3
SS 232	Critical Thinking	3	*BA 237	Business Law	3
BA235/MATH236	Bus Statistics/Prob & Stats	3		Intermediate Foreign Language	3
*ACC 231	Prin. of Financial Accounting	3	*BA 230	Business Application Software	3
EC 231	Microeconomics	3	*ACC 232	Prin. of Managerial Accounting	3
BE 221	Prof. Pathways Development	2	EC 230	Macroeconomics	3
Total		17	Total		18

JUNIOR YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
*BA 331	Research Project I	3	*BA 332	Research Project II	3
*MKT 330	Principles of Marketing	3	*BA 330	Quantitative Methods	3
*ACC 335	Intermediate Accounting I	3	*ACC 336	Intermediate Accounting II	3
*MGT 330	Principles of Management	3	*FIN 333	Personal Finance	3
*FIN 330	Principles of Finance	3	ENG 238	Adv. Speech Communication	3
Total		15	Total		15

SENIOR YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
*BA 433	International Business	3	*MGT 437	Business Policy	3
*FIN 430	Investment Management	3	*FIN 437	Corporate Finance	3
*FIN 433	Real Estate	3	*	Business Elective	3
*	Business Elective	3	*BA 432	Senior Capstone	3
*BA 431	Career Preparation Strategies	3	*BA 440	Internship	3
Total		15	Total		15

Total SCH 128

SCH in Major* 75

*Major courses require a "C" or better.

SCHOOL OF EDUCATION, HEALTH AND HUMAN SERVICES**School Mission**

The mission of the **School of Education, Health and Human Services** is to prepare graduates to enter an array of professions that address the well-being, development, learning, and support of individuals and families across the lifespan. The School is comprised of the following units: Education, Child and Family Studies Department; Health, Physical Education and Recreation Department; Social Work Department, and Office of Educator Preparation.

ADMINISTRATION**DEPARTMENTS**

Education, Child, and Family Studies
Dr. Tracy Middleton, Chair

Health, Physical Education, and Recreation
Dr. Paula Shelby, Chair

Social Work
Dr. John W. Miller Jr., Chair

Office of Educator Preparation

EDUCATION COURSES**EHHS 111, 112 AND 211 College Experience I and II;****Professional Pathways Development****credit 1-2 hrs.**

(Course descriptions are located in the Academic Affairs Department Cross-Disciplinary Courses section of the catalogue.)

ED 131 Pre-Professional Competencies**credit 3 hrs.**

This course is designed to support mastery of the essential competencies in reading, writing, and mathematics that are the requisite skills for entering the education profession and becoming an effective educator. In addition to subject area content, strategies for test-taking and overcoming test anxiety will be emphasized.

**ED 130 Historical and Philosophical Foundations/Practicum
(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

Some of the influential movements in our society which have shaped American education are examined. Included is a study of basic philosophical concepts, ideas, and proposals of educational philosophers from antiquity to modern times; reform movements, legislative acts and court decisions are stressed. Ten (10) Service-Learning hours are required.

ED 225 Foundations of Digital Media**credit 2 hrs.**

This course introduces students to various uses of educational software and other instructional technologies in the classroom.

**ED 230 Creating Culturally Relevant Classrooms
(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

This course will examine techniques of organizing and managing classroom activities. Various discipline models, techniques, methods, and constructs will be presented. Twenty (20) Service-Learning hours are required.

ED 330 Instructional Planning and Assessment**(DESIGNATED SERVICE-LEARNING COURSE) credit 3 hrs.**

This is a general methods course which prepares prospective teachers to the planning process, methods, strategies, evaluation techniques, and authentic assessment. Higher order thinking skills, multiple intelligences and learning/teaching styles and modalities will be emphasized. Twenty (20) Service-Learning hours are required. Prerequisite: Admission to Educator Preparation Program.

**ED 331 Social Studies Curriculum, Instruction and Assessment in the Elementary School
(DESIGNATED SERVICE-LEARNING COURSE) credit 3 hrs.**

This course introduces the student to the skills, strategies, techniques, and materials for teaching and assessing elementary school social studies. Twenty (20) Service-Learning hours are required. Prerequisite: Admission to Educator Preparation Program.

**ED 332 Science and Health PK-6
(DESIGNATED SERVICE-LEARNING COURSE) credit 3 hrs.**

Emphasis is placed on process skills, strategies, techniques, and materials for teaching and assessing science and health in the elementary school. Twenty (20) Service-Learning hours are required. Prerequisite: Admission to Educator Preparation Program.

**ED 335 Foundations in Teaching Reading PK-6
(DESIGNATED SERVICE-LEARNING COURSE) credit 3 hrs.**

This course introduces the processes of reading instruction for grades PreK-6. Strategies for developing comprehension, oral language, phonological awareness, phonics, fluency and vocabulary will be explored. The learning needs and evidence-based interventions for both developing and struggling readers are considered. Twenty (20) Service-Learning hours are required. Prerequisite: Admission to Educator Preparation Program.

**ED 336 Instructional Practices in English Language Arts
(DESIGNATED SERVICE-LEARNING COURSE) credit 3 hrs.**

This course provides instruction in language arts with an emphasis on utilizing reading methods across genres. Students will have experiences in developing instructional objectives, constructing and executing lesson plans, and designing literacy projects and activities. Twenty (20) Service-Learning hours are required. Prerequisite: Admission to Educator Preparation Program.

ED 337 Mathematics PK-6 (DESIGNATED SERVICE-LEARNING COURSE) credit 3 hrs.

Emphasis is placed on skills, strategies, techniques and materials for teaching and assessing elementary school mathematics. Twenty (20) Service-Learning hours are required. Prerequisite: Admission to Educator Preparation Program.

ED 339 Teaching Targeted Populations credit 3 hrs.

This course will provide prospective teachers with theoretical and practical understandings of the various targeted populations in public education today. The emphasis of this course may vary according to the identified population (African-American males, children from single parent homes, etc.)

ED 430 Integrating the Arts PK-6 (DESIGNATED SERVICE-LEARNING COURSE) credit 3 hrs.

Emphasis is placed on integrating music, art, movement, and drama with other subjects in the elementary classroom. Students will discover and develop skills in creative interactive activities that will capture children's attention and motivate them to participate in the arts. Twenty (20) Service-Learning hours are required. Prerequisite: Admission to Educator Preparation Program.

**ED 431 Content Area Reading and Writing PK-6
(DESIGNATED SERVICE-LEARNING COURSE) credit 3hrs.**

Provides preservice teachers with an understanding of teaching content area literacy. Students learn methods and strategies for teaching children to learn with and make use of expository texts. Comprehension, the role of expository texts, and vocabulary learning in content areas are presented. Twenty (20) Service-Learning hours are required. Prerequisite: Admission to Educator Preparation Program.

**ED 435 Assessment of Reading PK-6
(DESIGNATED SERVICE-LEARNING COURSE) credit 3hrs.**

This course provides instruction on developmentally appropriate assessment practices related to children's literacy development within the home and school from PK-5. Factors related to assessment and communication within and between the family, school, and teacher are addressed. Twenty (20) Service-Learning hours are required. Prerequisite: Admission to Educator Preparation Program.

ED 450 Special Topics in Education credit 3 hrs.

The study of selected topics in education designed specifically for early childhood education, elementary education, and secondary education majors. Prerequisite: Junior or senior standing, or consent of instructor. Course may be repeated for a maximum of six hours.

ED 460 Clinical Experience credit 12 hrs.

This course emphasizes experiences in planning and implementing effective classroom procedures. Special emphasis is given to individualized learning processes and the use of modern instructional media. Twelve (12) weeks of full-time experience under the supervision of cooperating teachers and college supervisors are required. Prerequisite: Admission to Student Teaching.

EDEC 230 Introduction to Early Childhood Curriculum **credit 3 hrs.**

This course offers a complete and current overview of the historical and philosophical foundations, current issues, methods and approaches to Early Childhood curriculum, instruction and development.

EDEC 231 The Young Child (birth-8) **credit 3 hrs.**

This course presents a study of the young child in familial and societal contexts, including the effects of environmental, cultural, and socioeconomic influences on child development. The focus is on observing and understanding the behavior of children from birth to eight years of age. Twenty (20) Service-Learning hours are required.

**EDEC 433 Methods and Materials in Pre-School Curriculum
(DESIGNATED SERVICE-LEARNING COURSE)** **credit 3 hrs.**

This course presents methods and materials of instruction appropriate for the pre-school level. Emphasis is placed on the growth, development, learning, and individual differences found among pre-school children. Twenty (20) Service-Learning hours are required.

SPECIAL EDUCATION COURSES

**EDSE 330 Exceptional Child
(DESIGNATED SERVICE-LEARNING COURSE)** **credit 3 hrs.**

The course provides the student with knowledge and understanding of exceptional children including the gifted and talented. The basic requirements of federal laws regarding the education of young children are addressed. Twenty (20) Service-Learning hours are required.

EDSE 432 Assessment of Special Children **credit 3 hrs.**

This course covers the foundations of assessment, including technical issues of school-based assessment, educational readiness, cognitive abilities, academic achievement, reading, math, language, and perceptual motor skills and abilities.

SUPPORT COURSES

EDU 230 Human Growth and Development **credit 3 hrs.**

An integrated study of the human life span, from the prenatal period through middle childhood and adolescence to the stages of early and later adulthood. Central to the course are the theories, principles, and processes by which change takes place in the physical, cognitive, and affective areas of development. Multicultural issues as they relate to social, educational, and familial factors will be addressed.

EDU 235 Educating African American Students **credit 3hrs.**

This course analyzes historical and contemporary factors that influence the education of African American students in the United States. The course emphasizes the knowledge, skills, dispositions required by educators and parents to provide an effective and equitable education for African American students.

**EDU 337 Diversity, Social Justice and the 21st Century Learner
(DESIGNATED SERVICE-LEARNING COURSE)** **credit 3 hrs.**

Using an integrated approach, this course involves the study of the theoretical and practical foundations for effective teaching in diverse classrooms. Class discussions, assignments, and service learning projects will explore the intersection of student learning and issues of social justice to include the relation to identities such as race, gender or socioeconomic status, and exceptionalities. Twenty (20) Service-Learning hours are required.

EDU 331 Research Methods **credit 3 hrs.**

This course focuses on quantitative and qualitative educational research methodology, data collection, and analysis. Preparation of research proposals and evidence-based decision making are emphasized.

EDU 332 Educational Psychology **credit 3 hrs.**

A study of the psychological principles basic to an understanding of the learner, the learning process

and the learning environment. Emphasis will be on the scientific study of the learning/ teaching and assessment process enabling the prospective teacher to integrate concepts into teaching strategies.

CHILD AND FAMILY DEVELOPMENT COURSES

CFD 110 Introduction to Child and Family Development Careers

credit 1 hr.

Identification and exploration of careers related to children and families. Legal requirements for working with children are discussed (e.g., background checks). NAEYC standards and professional code of ethics are also addressed.

EDEC 230 Introduction to Early Childhood Curriculum

credit 3 hrs.

This course offers a complete and current overview of the historical and philosophical foundations, current issues, methods, and approaches to early childhood education.

CFD 332 Interpersonal Relationships

credit 3 hrs.

This course provides an introduction to the field of interpersonal communication. Concepts related to the development and maintenance of interpersonal relationships are addressed.

CFD 333 Marriage and Family Relationships

credit 3 hrs.

Basic concepts, principles, theories, and issues of development and change in family relationships are explored.

CFD 334 Parent Education and Guidance

credit 3 hrs.

This course is designed to increase understanding of concepts and theories related to how parents teach, guide, and influence children and adolescents. Prerequisites: CFD 333.

CFD 337 Family Dynamics

(DESIGNATED SERVICE-LEARNING COURSE)

credit 3 hrs.

This course focuses on the interaction among family members. Concepts include normal family stress, conflict management, and family stress and crises. Theories of family crisis and methods of adapting are emphasized. Prerequisites: CFD 333. Twenty (20) Service-Learning hours are required.

CFD 339 Family Resource Management

credit 3 hrs.

This course addresses concepts related to the factors that influence the decisions individuals and families make about developing and allocating resources such as time, money, material assets, energy, Friends, neighbors, and space, to meet their goals.

CFD 433 Family Life Education Methods

credit 3 hrs.

This course focuses on the understanding of the general philosophy and broad principles of family life education with an emphasis on the ability to plan, implement, and evaluate such educational programs.

CFD 437 Professional Ethics

credit 3 hrs.

This course provides an understanding of the professionally recognized standards of personal and professional behavior. Prerequisites: CFD 333, CFD 334, CFD 337 and CFD 339.

CFD 439 Family Law and Public Policy

credit 3 hrs.

This course focuses on current laws and policies that affect children and families. Prerequisites: CFD 333, CFD 334, CFD 337, and CFD 339.

CFD 450 Special Topics in Child and Family Studies

credit 3 hrs.

The study of special topics in child and family studies. Prerequisite: Nine hours in Child and Family Development and junior or senior standing, or consent of instructor. Course may be repeated for a maximum of six hours.

CFD 452 Families in Later Life

(DESIGNATED SERVICE-LEARNING COURSE)

credit 3 hrs.

This course offers an overview of aging and its implications for the family. Topics such as theories of aging, stereotypes about aging and older adults, social relationships during later life, work and leisure, and policies and programs affecting aging and older adults will be addressed. Twenty (20) Service-Learning hours are required.

CFD 462 Child and Family Development Internship

credit 12 sch.

This course is designed to give students practical site-based experience in settings serving children and families. A total of 400 hours of supervised experience is required. Also includes a seminar. Prerequisites: Completion of all major course requirements and a minimum 2.0 grade point average.

PHE 336 Human Sexuality

(DESIGNATED SERVICE-LEARNING COURSE)**credit 3 hrs.**

The course provides an overview of the physiological, psychological, and social aspects of sexual development throughout the lifespan. The focus of the course is to encourage the achievement of healthy sexual adjustment. Course topics include the emotional and psychological aspects of sexual involvement; sexual values and decision making; family planning; and the influence of sexual involvement on interpersonal relationships.

PROGRAM OF STUDY IN EDUCATIONAL STUDIES

Concentration: PK-6 Certification

FRESHMAN YEAR					
First Semester		SCH	Second Semester		SCH
ENG 131	Analysis & Argumentation	3	ENG 132	Information, Literacy & Research	3
MATH 132	General College Math I	3	MATH 134	General College Math II	3
BIO 130	General Biology	3	PHYS 131	General Physical Science	3
BIO 110L	General Biology Lab	1	PHYS 111L	General Physical Science Lab	1
ED 131	Pre-Professional Comp	3	HIST 130	Intro to Afr. American History	3
MUS/ART 220	Music or Art Appreciation	3	*ED 130	Hist/Phil Foundations of Educ.	3
ED 111	The College Experience I	1	ED 112	The College Experience II	1
Total		17	Total		17

SOPHOMORE YEAR						
<i>First Semester</i>			<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
*ED 230	Creating Culturally Relevant Classrooms	3	EDU 235	Educating Afr. American Students	3	
HIST 231	US History I	3	ENG 237	Oral Communication	3	
*EDEC 230	Intro to Early Childhood	3	*EDEC 231	The Young Child	3	
*EDU 230	Human Growth and Dev.	3	*ED 225	Foundations of Digital Media	2	
SP/FR 233	Foreign Language	3	HE 230	Health Education	3	
ED 221	Prof. Pathways Development	2	PSY/SOC 230	Intro to Psychology or Soc.	3	
Total		17	Total		17	

JUNIOR YEAR					
<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
*ED 330	Instruct Plan & Assessment	3	*ED 331	Social Studies Education PK-6	3
*ED 335	Foundations in Teaching Reading PK-6	3	PHYS 140	Earth Science	4
*EDU 332	Educational Psychology	3	*ED 336	Instruc. Pract. In ELA	3
*ED 332	Sci & Health Education PK-6	3	*EDU 331	Research Methods	3
*ED 337	Math Education PK-6	3	*EDSE 330	The Exceptional Child	3
*EDU 337	Diversity, Soc. Justice and 21st Century	3			
Total		18	Total		16

SENIOR YEAR					
First Semester		SCH	Second Semester		SCH
*ED 430	Integrating the Arts PK-6	3	*ED 460	Clinical Practice	12
	Content Area Reading & Writing PK-6	3			
*ED 431	Assessment of Reading & Writing PK-6	3			
*ED 435	Methods and Materials	3			
*EDEC 440	Elective	2			
Total		14	Total		12

Total SCH 128
SCH in Major* 71
*Major courses require a "C" or better.

PROGRAM OF STUDY IN EDUCATIONAL STUDIES

Concentration: Child and Family Development

FRESHMAN YEAR					
First Semester		SCH	Second Semester		SCH
ENG 131	Analysis & Argumentation	3	ENG 132	Information, Literacy & Research	3
MATH 132	General College Math I	3	MATH 134	General College Math II	3
BIO 130	General Biology	3	PHYS 131	General Physical Science	3
BIO 110L	General Biology Lab	1	PHYS 111L	General Physical Science Lab	1
ED 131	Pre-Professional Comp	3	HIST 130	Intro to Afr. American History	3
MUS/ART 220	Music or Art Appreciation	3	*ED 130	Hist/Phil Foundations of Educ.	3
ED 111	The College Experience I	1	ED 112	The College Experience II	1
Total		17	Total		17

SOPHOMORE YEAR					
First Semester		SCH	Second Semester		SCH
*ED 230	Creating Culturally Relevant Classrooms	3	EDU 235	Educating Afr. American Students	3
HIST 231	US History I	3	ENG 237	Oral Communication	3
*EDEC 230	Intro to Early Childhood	3	*EDEC 231	The Young Child	3
*EDU 230	Human Growth and Dev.	3	*ED 225	Foundations of Digital Media	2
SP/FR 233	Foreign Language	3	HE 230	Health Education	3
ED 221	Prof. Pathways Development	2	PSY/SOC 230	Intro to Psychology or Soc.	3
Total		17	Total		17

JUNIOR YEAR					
First Semester		SCH	Second Semester		SCH
*CFD 332	Interpersonal Relationships	3	*PHE 336	Human Sexuality	3
*CFD 333	Marriage and Family Relations	3	*CFD 334	Parent Ed and Guidance	3
*ED 335	Foundations in Teaching	3	*CFD 339	Family Resource Management	3
*EDU 337	Reading PK-6				
	Diversity, Soc. Justice and	3	*EDU 331	Research Methods	3
	21st Century				
	Elective	3	*EDSE 330	The Exceptional Child	3
				Elective	3
Total		15	Total		18

SENIOR YEAR					
First Semester		SCH	Second Semester		SCH
*EDEC 433	Methods and Materials	3	*CFD 462	Child and Family Dev Internship	12
*CFD 437	Professional Ethics	3			
*CFD 439	Family Law and Public Policy	3			
*CFD 452	Families in Later Life	3			
	Elective	3			
Total		15	Total		12

Total SCH 128
SCH in Major* 68
*Major courses require a "C" or better.

Description of Physical Education Courses**PE 120 Soccer****credit 2 hrs.**

This course is designed to provide instruction in the fundamental techniques, rules, basic team tactics, and strategies.

PE 121 Tennis**credit 2 hrs.**

Basic instruction is offered in the fundamental skills of beginning tennis. Students are expected to execute these skills to the point that they are able to successfully participate in the sport, understand appropriate strategies, and utilize correct strokes.

PE 122 Fitness for Life**credit 2 hrs.**

This course is designed to evaluate the basic physical fitness level of students, and to develop for them a personalized exercise prescription to improve their strength and cardiovascular efficiency. Each student must show improvement in flexibility, strength, and cardiovascular endurance to complete the course.

PE 123 Leisure Skills**credit 2 hrs.**

This course focuses on skills related to lifetime leisure sports such as bowling, golf, and badminton.

PE 120 Aerobic Dance**credit 2 hrs.**

This course combines music and dance exercises as a method of developing important aspects of physical fitness.

PE 125 African Dance and Drumming**credit 2 hrs.**

This course explores various African dance movement patterns and examines how drumming influenced these patterns. Students will learn various dance movements and drumming skills indigenous to different African countries.

PE 127 Volleyball**credit 2 hrs.**

This course is designed to provide instruction in the fundamental skills of power volleyball. Emphasis is on the techniques of performing the overhand serve, bump, set, dig, and spike.

PE 220 Exercise Prescription**credit 2 hrs.**

This course will help students acquire skills and techniques in developing an individualized physical fitness program. Students will learn how to measure physical fitness levels and plan appropriate prescriptions for endurance, strength and flexibility.

PE 225 Beginning Rhythm and Jazz**credit 2 hrs.**

This course is designed to study the role of dance as a tool for the development of perception, creativity, and self-expression. Emphasis will be placed on the cultural aspects of dance in various countries.

PE 320 Swimming**credit 2 hrs.**

This course provides students with the basic fundamental skills to become proficient, safe swimmers. Students will become familiar with CPR. This course can fulfill the general education requirement in physical education.

PE 420 Advanced Life Saving and Water Safety**credit 2 hrs.**

This course provides instruction and analysis of swimming and life-saving skills. Teaching methods and organizational techniques for all levels of swimming are also covered. Qualifying students receive the A.M.B.C. WSI Certification.

HEALTH COURSES**HE 120 Weight Control****credit 2 hrs.**

This course is designed to provide students with essential information about planning and implementing a personal weight control program. This course can fulfill the general education requirement in physical education.

HE 220 Stress Management**credit 2 hrs.**

This course is designed to help students develop methods and strategies to manage stress encountered in daily living. The course can fulfill the general education requirement in physical education.

HE 230 Health Education**credit 3 hrs.**

This course is designed as a general education course in health. It includes high interest reading based on scientifically sound information appropriate for health. It endeavors to develop health

educated individuals who are able to direct their own lives, maintain a positive attitude, and aid in offering solutions to community health problems. An honors section is offered as HE 230H.

HE 330 First Aid and CPR**credit 3 hrs.**

This course is designed to provide students with the knowledge and skills necessary in an emergency to help sustain life and minimize pain and the consequences of injury or sudden illness until medical help arrives. The course content and activities will prepare participants to recognize emergencies and make appropriate decisions for first aid care. The course teaches the first aid skills the student will need in order to act as the first link in Emergency Medical Services (EMS) system. This course all emphasizes prevention of injuries and illness, with a focus on personal safety and health. Using a healthy lifestyle-awareness inventory, participants will assess their environment and personal habits to reduce their risk of injury and illness.

HREC 412 Career Readiness**credit 1 hrs.**

This course is designed to allow students to prepare for careers in the sport industry through instruction in interviewing, resume drafting, writing cover letters and other elements of the job application process.

RECREATION AND LEISURE SERVICES COURSES**EHHS 111, 112, 221, Seminars****credit 1-2 hrs.**

(Course descriptions are located in the Academic Department Cross-Disciplinary Courses section of the catalogue.)

REC 120: Critical Writing in Recreation**credit 2 hrs.**

This writing course is designed to focus on writing as integrally related skills. Students will study and practice reading comprehension, the writing process, and critical thinking. Students will create clear and correct sentences as they develop the skills necessary to write a variety of focused, developed, organized paragraphs and essays. This class will discuss the components of a scholarly research paper and it will introduce the typing and APA formatting rules.

REC 230: Introduction to Recreation and Leisure Services**credit 3 hrs.****(DESIGNATED SERVICE-LEARNING COURSE)**

As an introductory course in recreation and leisure services, emphasis is placed on the history, concepts, principles, and philosophical rationale of the recreation movement. Types of recreation sponsorship are analyzed, and a detailed investigation is made into the function of governmental levels in recreation. Future implications for recreation as a profession are analyzed in light of current trends

REC 232: Recreation Program Planning**credit 3 hrs.****(DESIGNATED SERVICE-LEARNING COURSE)**

Methods of program planning, publicity, and scheduling are covered; and utilization of time blocks and facilities are incorporated. Students identify the different recreation program areas, write program objectives that are utilized in the implementation process, conduct pre- and post- evaluations of community resources, and design a program of activities for a selected population.

REC 234: Financing Leisure Services**credit 3 hrs.**

This course provides a foundation of the financial considerations in recreation management. Revenue sources and their allocation are examined along with approaches to marketing recreation and leisure services. Prerequisites: REC 324 and REC 332.

REC 321: Programming for Youth Development**credit 3 hrs.****(DESIGNATED SERVICE-LEARNING COURSE)**

Students are introduced to foundational concepts and theories, as well as current issues in the field of youth development. This course features an intense practical component, where students will design and implement recreation experiences and services to promote positive youth development.

REC 324: Commercial Recreation**credit 3 hrs.**

An overview of the commercial recreation industry, specifically focusing on the procedures involved in the developing, marketing and managing of the enterprise. The student is introduced to the methods used in starting a leisure business. The management skills necessary for effective and profitable management of an enterprise are also discussed.

REC 330: Recreation Administration**credit 3 hrs.**

This course is designed to provide students with the basic understanding of the principles and procedures related to planning, development, design, and maintenance of recreation, park resources, and sport and leisure service areas and facilities.

REC 332: Legal Aspects in Recreation**credit 3 hrs.**

This course provides the student with an understanding of legal issues related to recreation, sport management and therapeutic recreation service delivery. The student will develop knowledge in areas including legal foundations, legal liability and tort, standard of care, land use policy, employment regulations, disability services, malpractice concerns, and current issues.

REC 333: Recreation and Sport Management Volunteer Services**credit 3 hrs.****(DESIGNATED SERVICE-LEARNING COURSE)**

The purpose of this course is to give students an opportunity to gain practical experiences and to assist students in making decisions concerning the types of populations they are interested in serving. Each student is required to complete one voluntary experience conditioning of forty-two (42) hours.

REC 334: Recreation & Leisure Services with Diverse Populations**credit 3 hrs.**

This course provides a discussion of the influence of age, disability, ethnicity, national origin, race, religion and gender on an individual's or group's preferences for particular recreation opportunities and experiences. Attention is also given to the implications of individual differences for the provision of recreation services. Prerequisites: REC 230, REC 232

REC 337: Research Methods in Recreation**credit 3 hrs.**

This course includes an analysis of the principal methods of Recreation research, the application of statistical computer packages that are applicable to Recreation and the development of a Senior Research Proposal.

REC 338: Outdoor Adventure Education**credit 3 hrs.**

This course covers the philosophy of Outdoor Adventure Education by examining the practical organizational and instructional skills needed for outdoor leadership. The psychosocial impact that the outdoor environment has on individuals will be covered.

REC 437: Organization & Management of Recreation, Sport & Leisure Services**(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

This course is designed to study the organization and management of parks, recreation and sport services, governmental functions, organizational structures, and policies and personnel responsibilities. Aspects of financing, public relations, decision-making, and business practices are analyzed. The use of computers to facilitate administrative functions is also explored.

REC 439: Program Evaluation**credit 3 hrs.**

This course presents the types of program evaluations and their purposes. It will allow the students to conduct research and report on one of the following options: Option (1) Recreation Program Evaluation - of a recreation and leisure organization and/or agency and present the findings. *Recreation Program Evaluation students will write and present a program evaluation plan, which includes the following: Program Methods (goals-based, process-based, or outcome evaluation); Overview of Methods (questionnaires, interviews, focus groups, etc.); Selection of Method (gathering of information -- documentation review, observations, and case studies); Analyzing Method (interpreting the data), and Reporting Method (evaluation results - advantages and challenges). Option (2) Recreation Research Paper, *Research Students will: identify a problem, analyze the situation, gather relevant information, interpret the information, and propose a solution. In addition, students will learn to write using APA style and format. Prerequisites: REC 230, REC 232, REC 310, REC 321, REC 324, REC 330, REC 331, REC 332, REC 334, REC 338, and REC 437.

REC 460 Recreation Internship I**credit 6 hrs.**

This is a course designed to give students an opportunity to practice skills learned in the classroom and apply them to a practical setting. Under the guidance of the academic advisor and agency supervision, students are required to complete a minimum of 280 clock hours (sixteen consecutive weeks) of field placement under a certified supervisor. Prerequisites: REC 230, REC 232, REC 310, REC 321, REC 324, REC 330, REC 331, REC 332, REC 334, and REC 338.

REC 461 Recreation Internship II**credit 6 hrs.**

This is a course designed to give students an opportunity to practice skills learned in the classroom and apply them to a practical setting. Under the guidance of the academic advisor and agency supervision, students are required to complete a minimum of 280 clock hours (sixteen consecutive weeks) of field placement under a certified supervisor. Prerequisites: REC 230, REC 232, REC 310, REC 321, REC 324, REC 330, REC 331, REC 332, REC 334, REC 338, and REC 460.

PROGRAM OF STUDY IN RECREATION AND LEISURE SERVICES

FRESHMAN YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
ENG 131	Analysis & Argumentation	3	ENG 132	Information, Literacy & Research	3
MATH 132	General College Math I	3	MATH 134	General College Math II	3
	Health & Wellness	2	BIO/CHEM/ESC/PHYS	General Science Lecture	3
BA 130	Introduction to Business	3	BIO/CHEM/ESC/PHYS	General Science Lab	1
	Elective	3	*REC 120	Critical Writing in REC	2
HHS 111	The College Experience I	1	HIST 130	Intro to Afr. American History	3
			HHS 112	The College Experience II	1
Total		15	Total		16

SOPHOMORE YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
ENG 237	Oral Communications	3	FR/SP/AR 233	Intermediate Foreign Language	3
*SM 231	Sport Leadership & Mgt	3	*REC 232	Recreation Program Planning	3
*REC 230	Intro to Recreation	3	ENG 239	Language, Literacy & Power	3
ACC 231	Principles of Accounting	3	BA 230	Business Application Software	3
HHS 221	Professional Pathways	2	*REC 234	Financing Leisure Services	3
	Global & Intercultural Learning	3		Global & Intercultural Learning	3
Total		17	Total		18

JUNIOR YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
*REC 337	Research Methods in REC	3	*REC 333	Recreation & Sport Mgt. Vol. Svs.	3
*REC 321	Programming for Youth Dev.	3	*SM 341	Sport Personnel Management	3
*REC 330	Recreation Administration	3	*REC 334	Diverse Populations	3
*SM 333	Sport Marketing and Entertain.	3	*REC 338	Outdoor Adventure	3
*SM 337	Sport Law	3	*REC 332	Legal Aspects in REC	3
	Elective	2	*REC 324	Commercial REC	3
Total		17	Total		18

SENIOR YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
HREC 421	Sport Analytics	2	*REC 460	Internship I	6
*REC 437	Organization & Management	3	*REC 461	Internship II	6
*REC 439	Program Evaluation	3	HREC 412	Career Readiness	1
	Elective	6			
Total		14	Total		13

Total SCH 128
SCH in Major* 65

*Major courses require a "C" or better.

Minor for Recreation (15)

REC 230	Introduction to Recreation and Leisure (3)
REC 234	Financing Leisure Services (3)
REC 321	Programming for Youth Development (3)
REC 332	Legal Aspects in Recreation (3)
REC 437	Organization & Management of Recreation, Sport & Leisure Services (3)

PUBLIC HEALTH COURSES**EHHS 111, 112, 221 College Experience I and II; Career Pathways Development****credit 1-2 hrs.**

(Course descriptions are located in the Academic Departments Cross-Disciplinary Courses section of the catalogue.)

PHE 120 Critical Writing for Public Health**credit 3 hrs.**

This writing course is designed to focus on reading and writing as integrally related skills. Students will study and practice reading comprehension, the writing process, and critical thinking. Students will create clear and correct sentences as they develop the skills necessary to write a variety of focused, developed, organized paragraphs and essays. This course discusses the components of a scholarly research paper and introduces the typing and APA formatting rules.

PHE 231 Introduction to Public Health**(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

The course focuses on the historical development of public health in the United States. Topics include an analysis of public health concepts as well as principles and philosophies that form the basis for public health in contemporary society. Additionally, the public health delivery system is explored.

PHE 232 Mental Health**credit 3 hrs.**

The course investigates various approaches to handling crisis situations and an overview of the mental health services system. A primary focus is an investigation of the mental health of African-Americans.

PHE 234 Drugs and Society**credit 3 hrs.****(DESIGNATED SERVICE- LEARNING COURSE)**

Analysis and evaluation of scientific data on the effects of tobacco, alcohol, narcotics, and other dangerous drugs are covered. Current problems relating to control of use and abuse of these drugs and the role of Public Health in preventing substance abuse are explored.

PHE 330 Health and Aging**(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

The course introduces the study of aging, and its implications for individuals, families, and society. Public Health students will gain the following knowledge concerning: aging, demography, biology, physical and mental disorders, and disabilities, state and federal health policies, social aspects of the elderly, ethical issues, and ways to care for older individuals.

PHE 331 Human Diseases**credit 3 hrs.****(DESIGNATED SERVICE-LEARNING COURSE)**

The course covers communicable and chronic diseases of humans with regards to disease description, etiology, signs and systems, diagnostic procedures, treatment, prognosis and prevention.

PHE 332 Contemporary Public Health Problems for African-American**credit 3 hrs.****(DESIGNATED SERVICE-LEARNING COURSE)**

Current public health problems of interest, importance and impact of an individual, community, national and international basis are examined. Course content includes an overview of the state of the nation's public health. Contemporary public health aspects are investigated with an emphasis of implementation of positive behavior aimed at improving the public health of the individual and the community. Special emphasis is placed on contemporary public health problems of the minority community. Prerequisite: PHE 231

PHE 334 Public Health Special Topics: Diabetes and Hypertension**credit 3 hrs.****(DESIGNATED SERVICE-LEARNING-COURSE)**

This course is a survey and investigation of diabetes and hypertension in the African-American community. Modifiable and non-modifiable risk factors are explored. Content gives Public Health students a working knowledge of diabetes and hypertension and how complications from both impacts the overall health. The course also focuses on how to reduce and/or prevent complications and explore interventions that work in community settings. The course will provide students with current South Carolina overview of African-Americans in Public Health professions and focus on ways to increase the number of Public Health professionals prepared to address chronic diseases most prevalent in African-American communities. Prerequisite: PHE 231

PHE 336 Human Sexuality**credit 3 hrs.****(DESIGNATED SERVICE-LEARNING COURSE)**

This course seeks to encourage health attitudes toward sexuality by providing knowledge and having discussions about the formation of sexual attitudes and myths, the physiology of human sexual systems, psychological aspects of sex roles, love and human sexuality, sexual minorities, and the legal aspects of sexuality. Additionally, this course explores contemporary issues in human sexuality and prepares future public health professionals to conduct sexuality education with diverse populations in a variety of settings (i.e., school, community or worksite). Course content is intended to help students increase their knowledge of sexuality; improve their ability to educate about and promote sexual health; develop skills for improved communications; and increase their comfort level with topics of human sexuality. Students should have an open mind to facilitate discussion about the various topics related to sexuality and sexuality education.

PHE 337 Research Methods in Public Health**credits 3 hrs.**

This course includes an analysis of the principal methods of Public Health research, and the development of a Senior Research Proposal.

PHE 338 Health Administration**credit 3 hrs.**

This course provides an introduction to management functions, tasks, and roles as they are carried out in health services organizations. Discussion of emerging issues affecting the management of health service organizations is provided. This course uses the case method of analysis to develop critical thinking skills.

PHE 339 Introduction to Health Promotion and Education**credit 3 hrs.****(DESIGNATED SERVICE LEARNING COURSE)**

Introduction to the field of Health Education /Promotion. History and philosophy of health education and the theoretical foundations are covered. The roles and responsibilities and typical settings in which Certified Health Education Specialists are employed are covered as well as the ethical principles that guide the profession. Prerequisite: PHE 231

PHE 430 Global Health**credit 3 hrs.**

Overview of health around the world. The class will explore contemporary issues, problems, and controversies in global health and identify key global health challenges, their distributions, and prevention strategies. Prerequisites: PHE 231

PHE 431 Public Health Biostatistics**credits 3 hrs.**

This course covers the basic principles, methods, logic and language of statistics from a public health perspective. Topics include descriptive statistics for single-variable and bivariate data (summary statistics and correlation), basic probability, distributions (Binomial, Normal, and Chi-Square), and inferential statistics for one and two populations (confidence intervals, hypothesis testing, and t-test). This course culminates with the completion and presentation of the Senior Research Project. Prerequisite: PHE 337

PHE 460 Public Health Internship I**credit 6 hrs.**

This course is designed to give students an opportunity to practice skills learned in the classroom and apply them to a practical setting. Under the guidance of an academic advisor and agency supervisors, students are required to complete a minimum of 200 clock hours (five consecutive weeks) of field placement under a certified supervisor. Prerequisites: PHE 231, PHE 232, PHE 234, PHE 330, PHE 331, PHE 332, PHE 336, PHE 337, PHE 338, and PHE 431.

PHE 461 Public Health Internship II**credit 6 hrs.**

This course is designed to give students an opportunity to practice skills learned in the classroom and apply them to a practical setting. Under the guidance of an academic advisor and agency supervisors, students are required to complete a minimum of 200 clock hours (five consecutive weeks) of field placement under a certified supervisor. PHE 460 and PHE 461 can be taken concurrently. Prerequisites: PHE 231, PHE 232, PHE 234, PHE 330, PHE 331, PHE 332, PHE 336, PHE 337, PHE 338, PHE 431 and PHE 460.

ESC 436 Epidemiology**credit 3 hrs.**

Course content presents principles of epidemiologic thinking; measure of disease frequency and association, rates, etiology, prevention and control; determinants of disease and distribution factors influencing health and disease in populations; study design and analysis; indices of disease and health; epidemiology methods used in the investigation of health efforts of environmental exposures.

Prerequisites: Waived for Public Health majors.

PROGRAM OF STUDY IN PUBLIC HEALTH

FRESHMAN YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
ENG 131	Analysis & Argumentation	3	ENG 132	Information, Literacy & Research	3
MATH 132	General College Math I	3	MATH 134	General College Math II	3
HE 230	Health Education	3	BIO 130	General Biology	3
HIST 130	Intro to Afr. American History	3	BIO 110L	General Biology Lab	1
*ESC 130	Environmental Science	3	*PHE 120	Critical Writing for Public Health	2
*ESC 110L	Environmental Science Lab	1	SP/FR/AR 233	Intermediate Foreign Language	3
HHS 111	The College Experience I	1	HHS 112	The College Experience II	1
Total		17	Total		16

SOPHOMORE YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
ENG 237	Oral Communication	3	BIO 234	Human Anatomy & Phys II	3
BIO 233	Human Anatomy & Phys I	3	*PHE 232	Mental Health	3
*PHE 231	Intro to Public Health	3	*PHE 234	Drugs and Society	3
HHS 221	Prof. Pathways Development	2	SOC 230	Introduction to Sociology	3
	Electives	6	BA 230	Business App, Software	3
				Global & Intercultural Learning	3
Total		17	Total		18

JUNIOR YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
*PHE 339	Intro to Health Promotion	3	*PHE 332	Contemporary Health Prob.	3
*PHE 331	Human Diseases	3	*PHE 336	Human Sexuality	3
*PHE 330	Health and Aging	3	*PHE 337	Research Methods in PHE	3
*PHE 334	Public Health Special Topics	3	*PHE 338	Health Administration	3
BIO 337	Nutrition	3	ESC 436	Epidemiology	3
	Health & Wellness	2		Elective	2
Total		17	Total		17

SENIOR YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
*PHE 430	Global Health	3	*PHE 460	Public Health Internship I	6
*PHE 431	Statistics in Public Health	3	*PHE 461	Public Health Internship II	6
	Elective	7	HREC 412	Career Readiness	1
Total		13	Total		13

Total SCH 128

SCH in Major* 57

*Major courses require a "C" or better.

Minor for Public Health (15)

PHE 231	Introduction to Public Health (3)
PHE 232	Mental Health (3)
PHE 331	Human Diseases (3)
PHE 338	Health Administration (3)
PHE 339	Introduction to Health Promotion (3)

SPORT MANAGEMENT COURSES

EHHS 111, 112, 221 College Experience I and II; Career Pathways Development credit 1-2 hrs.
(Course descriptions are located in the Academic Department Cross-Disciplinary Courses sections of the catalogue.)

SM 120 Critical Writing in Sport Management **credit 2 hrs.**

This writing course is designed to focus on reading and writing as integrally related skills. Students will study and practice reading comprehension, the writing process, and critical thinking. Students will create clear and correct sentences as they develop the skills necessary to write a variety of focused, developed, organized paragraphs and essays. This class will discuss the components of a scholarly research paper and introduce the typing and APA formatting rules.

SM 230 Introduction to Sport Management
(DESIGNATED SERVICE-LEARNING COURSE) **credit 3 hrs.**

The program in sport management requires students to complete a core curriculum within sport management, and apply the business concepts to all sports. This course will introduce sport: business operations and administration, marketing and promotions, law, media, accounting, psychology, issues in sports, and facilities and event management. The program is designed to prepare students in different settings and across various levels of sport management with the emphasis on service-learning.

SM 231 Sport Leadership and Management **credit 3 hrs.**
(DESIGNATED SERVICE-LEARNING COURSE)

This course provides students with opportunities to develop leadership skills in recreation and sport. Emphasis will be placed on student's ability to apply knowledge of theories, principles, and practice to the task of being an effective leader.

SM 232 Sport Psychology **credit 3 hrs.**

This course is designed to provide students with an understanding of the theoretical structure that underlies psychology as it has been applied to sport. There will be a particular emphasis on the psychological concerns that confront sport leaders, coaches, athletes, teams, and organizations.

SM 233 Sport Finance **credit 3 hrs.**

The purpose of this course is to provide the students with the principles of economics, budgeting, and finance as it applies to the sport industry. Special emphasis will be placed on calculating profits and losses for sport organizations: tracking and graphing financial trends of revenues and expenses; analyzing revenues after factoring in inflation costs to determine adjusted profits or losses; and determining, evaluating, and reporting causes for trends and anomalies (in all of the above). The course materials will include ways to: analyze the financial value of sport franchises; evaluate revenue categories to determine viability; and analyze and discuss the impact of collective bargaining agreements on the financial value of franchises.

SM 331 The Role of Sport in Society **credit 3 hrs.**

The course analyzes the institution of sport as an agent for and reflection of cultural transmission and change as a subculture, with its own values and normative definitions. The materials within this course identifies the roles and responsibilities for each group, as well as, for the individuals within each group. This content is designed to make students aware of the impact of sport in the American and global culture. It includes many theoretical positions in the sociology of sport, and several significant viewings from various perspectives (i.e., race, sex, religion, nationalism, socialization, global, etc.).

SM 333 Sport Marketing and Entertainment
(DESIGNATED SERVICE-LEARNING COURSE) **credit 3 hrs.**

This course covers the essentials of sport marketing which includes sport: planning, promotions, operations, and developing a market analysis. Students will examine the fundamental principles used in the marketing of sport, products, events, and the importance of service and quality.

SM 335 Sport Facilities Management
(DESIGNATED SERVICE-LEARNING COURSE) **credit 3 hrs.**

This course focuses on the theory and practice of planning and managing facilities and events in interscholastic athletics. Topics covered in this course include: the strategic management of athletic facilities, planning for facility construction and renovation, the maintenance of athletic facilities and equipment, event planning and management for school and non-school users, and emergency

planning considerations utilized in program administration.

SM 337 Sport Law**credit 3 hrs.**

The purpose of the course is to provide students with an understanding of the legal issues involved in the operation and management of organizations in the sport business industry, and to equip students with the skills and strategies needed to effectively work with business executives and lawyers to resolve these issues. The course will focus on the practical application of the laws (rules and regulations, and decision-making processes), which will be applied when they become sport business managers, sport agents, and/or lawyers.

SM 338 Sport Media and Communications**(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

This course will explain and delineate the importance of having a comprehensive media communications strategy to improve the brand of a sport organization. Theories and research paradigms will be introduced to develop and evaluate a strategic communications plan and will create a strategic communications plan that provides a synopsis and recommendations for a sport organization.

SM 339 Research Methods and Statistics in Sport Management**credit 3 hrs.**

This introductory course focuses on two parts (1) developing an understanding of how to use research to solve problems for sport entities and organizations. Specifically, sport management students will learn how to identify a problem, analyze the situation, gather relevant information, interpret the information, and propose a solution. In addition, students will learn to write using APA style and format. Students will be introduced to experimental design concepts – the ability to ask researchable questions. (2) This course will also introduce the method of sport programming evaluation to the students. *Program Evaluation students will present the following: Program Methods (goals-based, process-based, or outcome evaluation), Overview of Methods (questionnaires, interviews, focus groups, and etc.), Selection Method (gathering the information-documentation review, observations, and case studies), Analyzing Method (interpreting the data), and Reporting Method (evaluation results - advantages and challenges). The student will write a full evaluation plan. This course also designed to develop students' competencies in understanding the rationales and computational procedures required for basic behavioral statistics. Prerequisites: SM 230, SM 232, SM 331, SM 333, and SM 335.

SM 340 Athletic Administration**(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

This course provides an overview of the roles and responsibilities of interscholastic athletic administrators. Participants will discuss the philosophy of interscholastic athletics, and examine the technical, human, and conceptual requirements of athletic administrators.

SM 341 Sport Personnel Management**(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

The course introduces modern principles and practices of personnel management (human resource management) in the organization, explains the key role of personnel management in achieving strategic objectives of the organization and introduces fundamental human resource functions that determine the competitiveness of the organization in the global economy.

SM 431 Sport Governance**credit 3 hrs.**

This course provides the Sport Management students with an examination of the governing sport organizations on the following levels: youth, secondary, intercollegiate, semi-professional, professional, international, sport specific, and Olympics. The focus will be on policy development in the educational, nonprofit, and professional sport venues.

SM 433 Ethics in Sport**credit 3 hrs.**

This course examines research findings and current literature relevant to issues affecting concepts of ethics and morality in sport. Some topics include: sportsmanship, code of professional ethics, behaviors in sport, ethical theories, ethics and management, influence, and decision-making. Students will use their critical thinking skills by identifying problems and solutions in an ethical, practical, and critical manner.

SM 438 Coaching & Officiating Techniques**credit 3 hrs.**

This course is designed to inform the students of the rules, officiating techniques, and problems arising in officiating with emphasis on: football basketball, baseball, volleyball, tennis, soccer, swimming, track, and other sports of interest. Students will be able to seek opportunities to receive officiating certifications.

SM 439 Program Evaluation**credit 3 hrs.**

This course will inform of the types of evaluation and their purposes. It will allow the students to conduct research and report on one of the following options: Option (1) Sport Management Program Evaluation - of a sport organization and/or agency and present the findings. *Sport Management Program Evaluation students will write and present a program evaluation plan, which includes the follow: Program Methods (goals-based, process-based, or outcome evaluation), Overview of Methods (questionnaires, interviews, focus groups, and etc.), Selection Method (gathering the information-- documentation review, observations, and case studies), Analyzing Method (interpreting the data), and Reporting Method (evaluation results - advantages and challenges). Option (2) Sport Management Research Paper, *Research Students will: identify a problem, analyze the situation, gather relevant information, interpret the information, and propose a solution. In addition, students will learn to write using APA style and format. Prerequisites: SM 230, SM 232, SM 331, SM 333, SM 335, SM 337, SM 338, SM 339, SM 340, and SM 341.

ATC 230 Intro to Athletic Training**credit 3 hrs.**

This course is intended to introduce students to the profession of athletic training and sports medicine; including history, function, career opportunities and professional standards of the national (NATA) and state (PATS) organizations, as well as the educational objectives of the athletic training major. This course is designed for students who are interested in fields such as: athletic training, physical therapy, sport medicine, physiology of exercise, kinesiology, nutrition, EMT, and other sports medicine related fields. This course focuses on the basic information and skills important in the recognition of, care, prevention, and preliminary rehabilitation of athletic injuries. The course includes class work and hands-on application.

HREC 421 Sport Analytics**credit 2 hrs.**

This course is an introduction to the application of analytic tools and techniques used to aid sports administrators. The course examines: player and team performance measurement, in-game decision-making strategies, and player selection and team/roster construction. The students will learn about the different statistician programs and software used to analyze the major sports for marketing and promotional purposes.

SM 460 Sport Management Internship I**credit 6 hrs.**

This course is designed to prepare students for their internship. Students will learn how to construct an effective resume, interview skills, business etiquette, and etc. The students will also gain real-life experience by working for an amateur, collegiate, and/or professional sport organization. Under the guidance of the academic advisor and agency supervision, students are required to complete a minimum of 200 clock hours (sixteen consecutive weeks) of field placement under a qualified supervisor. Prerequisites: SM 230, SM 232, SM 331, SM 333, SM 335, SM 337, SM 338, SM 339, SM340, SM 341, SM 431, SM 433, and SM 439.

SM 461 Sport Management Internship II**credit 6 hrs.**

This course is designed to prepare students for their internship. Students will learn how to construct an effective resume, interview skills, business etiquette, etc. The students will also gain real-life experience by working for an amateur, collegiate, and/or professional sport organization. Under the guidance of the academic advisor and agency supervision, students are required to complete a minimum of 200 clock hours (sixteen consecutive weeks) of field placement under a qualified supervisor. Prerequisites: SM 230, SM 232, SM 331, SM 333, SM 335, SM 337, SM 338, SM 339, SM 340, SM 341, SM 431, SM 433, SM 439, and SM 461.

PROGRAM OF STUDY IN SPORT MANAGEMENT

FRESHMAN YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
ENG 131	Analysis & Argumentation	3	ENG 132	Information, Literacy & Research	3
MATH 132	General College Math I	3	MATH 134	General College Math II	3
*SM 120	Critical Writing in Sport Mgt	2	BIO/CHEM/ESC/PHY	General Science Lecture	3
BA 130	Introduction to Business	3	BIO/CHEM/ESC/PHY	General Science Lab	1
	Elective	3		Elective	3
HHS 111	The College Experience I	1	HIST 130	Intro to Afr. American History	3
			HHS 112	The College Experience II	1
Total		15	Total		17

SOPHOMORE YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
ENG 237	Oral Communications	3	FR/SP/AR 233	Intermediate Foreign Language	3
*SM 231	Sport Leadership & Mgt	3	*ATC 230	Intro to Athletic Training	3
*SM 230	Intro to Sport Management	3	*SM 232	Sport Psychology	3
ACC 231	Principles of Accounting	3	*SM 233	Sport Finance	3
PE 230	Swimming	2	SOC 230	Intro to Sociology	3
HHS 221	Professional Pathways	2	BA 230	Business Application Software	3
Total		16	Total		18

JUNIOR YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
*SM 331	Role of Sport in Society	3	*SM 338	Sport Media & Communications	3
*SM 333	Sport Marketing and Entertain.	3	*SM 339	Research Meth. & Stat. Sp Mgt	3
*SM 335	Sport Facilities Management	3	*SM 340	Athletic Administration	3
*SM 337	Sport Law	3	*SM 341	Sport Personnel Mgt	3
	Global and Intercultural	3		Elective	3
	Elective	2			
Total		17	Total		15

SENIOR YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
HREC 421	Sport Analytics	2	*SM 460	Sport Mgt Internship I	6
*SM 431	Sport Governance	3	*SM 461	Sport Mgt Internship II	6
*SM 433	Ethics in Sport	3	HREC 412	Career Readiness	1
*SM 439	Program Evaluation	3			
PE 438	Coaching & Officiating Tech	3			
	Elective	3			
Total		17	Total		13

Total SCH 128

SCH in Major* 62

*Major courses require a "C" or better.

PROGRAM OF STUDY IN PUBLIC HEALTH

FRESHMAN YEAR					
First Semester			Second Semester		
ENG 131	Analysis & Argumentation	3	ENG 132	Information, Literacy & Research	3
MATH 132	General College Math I	3	MATH 134	General College Math II	3
HE 230	Health Education	3	BIO 130	General Biology	3
HIST 130	Intro to Afr. American History	3	BIO 110L	General Biology Lab	1
*ESC 130	Environmental Science	3	*PHE 120	Critical Writing for Public Health	2
*ESC 110L	Environmental Science Lab	1	SP/FR/AR 233	Intermediate Foreign Language	3
HHS 111	The College Experience I	1	HHS 112	The College Experience II	1
Total		17	Total		16

SOPHOMORE YEAR					
First Semester			Second Semester		
ENG 237	Oral Communication	3	BIO 234	Human Anatomy & Phys II	3
BIO 233	Human Anatomy & Phys I	3	*PHE 232	Mental Health	3
*PHE 231	Intro to Public Health	3	*PHE 234	Drugs and Society	3
HHS 221	Prof. Pathways Development	2	SOC 230	Introduction to Sociology	3
	Electives	6	BA 230	Business App, Software	3
				Global & Intercultural Learning	3
Total		17	Total		18

JUNIOR YEAR					
First Semester			Second Semester		
*PHE 339	Intro to Health Promotion	3	*PHE 332	Contemporary Health Prob.	3
*PHE 331	Human Diseases	3	*PHE 336	Human Sexuality	3
*PHE 330	Health and Aging	3	*PHE 337	Research Methods in PHE	3
*PHE 334	Public Health Special Topics	3	*PHE 338	Health Administration	3
BIO 337	Nutrition	3	ESC 436	Epidemiology	3
	Health & Wellness	2		Elective	2
Total		17	Total		17

SENIOR YEAR					
First Semester			Second Semester		
*PHE 430	Global Health	3	*PHE 460	Public Health Internship I	6
*PHE 431	Statistics in Public Health	3	*PHE461	Public Health Internship II	6
	Elective	7	HREC 412	Career Readiness	1
Total		13	Total		13

Total SCH 128
SCH in Major* 57
*Major courses require a "C" or better.

SOCIAL WORK DEPARTMENT**SOCIAL WORK COURSES****EHHS 111, 112, 221, Seminars****credit 1-2 hrs.**

(Course descriptions are located in the Academic Department Cross-Disciplinary Courses section of the catalogue.)

SW 130 Critical Thinking for Social Workers**credit 3 hrs.**

This course involves the careful examination and evaluation of beliefs and behaviors by paying close attention to the thought process and logic supporting these beliefs and behaviors. Since social workers interact with micro, mezzo, and macro client systems and have the role of making and influencing decisions that impact the lives of many people, this course is designed to help students understand how to make purposeful decisions that reflect a clear and thorough evaluation of the process and the evidence. It will examine assumptions, facts, and the relationships between facts. Focus also will be on the need to be creative and open to alternative views in addressing problems. Vignettes and experiential activities covering the spectrum of social work will be used.

SW 230 Introduction to Social Work**(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

As an introductory course to the profession of social work, the course is designed to facilitate students' understanding of and beginning identity with the profession, its code of ethics, value system, and the conscious, planned use of self in professional helping. Personal skill development and values clarification are explored as a means of assisting students in assessing their own values and feelings about the diverse nature of human beings and the human condition. A generalist, problem-solving process that is used with multilevel client systems (individuals, groups, families, organizations and communities) is introduced. Fields of social work practice as well as diverse client groups are also explored. Students are required to complete a 20-hour volunteer experience in a public, private, or non-profit social work or human service agency.

SW 231 Writing for Social Work**credit 3 hrs.**

This course is designed to help social work students improve their writing skills. The course uses a write-to-learn approach. Students will write in response to written, visual and reading resources with an emphasis on deepening understanding, exercising critical thinking, and enhancing clarity and specificity of written communication. The course focuses specifically on the process of writing and some of the types of writing social work practitioners are required to do in everyday practice. Research and writing skills are emphasized and include conducting literature searches, outlining, paragraph and sentence structure, reviewing, using APA format, and proofreading for correct grammar, word usage, and punctuation. The course is designed to help students identify and correct common writing errors. For majors only. Prerequisite: SW 130

SW 232 Writing for Social Work II**credit 3 hrs.**

This course is designed to help social work students improve their writing skills utilizing a write-to-learn approach to build upon the skills taught in Writing for Social Work I. Students will enhance their ability to write in response to written, visual and reading resources with an emphasis on exercising clarity of written communication. Special emphasis will be on some of the types of writing social work practitioners are required to do in everyday practice. Specifically, this course will teach students how to write case notes, business letters, inter and intra-office memoranda, monthly reports and performance evaluations. For majors only. Prerequisites: SW 130, SW 230, SW 231

SW 236 African American Experiences in Social Work**credit 3 hrs.**

This course is designed to provide students with an understanding of the contributions of African Americans to social welfare and social work practice. The course covers a wide range of historical and contemporary issues regarding African Americans in social work. Additionally, the course focuses on the contributions of African Americans in initiating, planning and developing social welfare programs and service during the harsh period in US history when segregation, social and economic injustices toward people of color was acceptable. Students will develop an awareness and understanding of some of the social and psychological/cognitive issues that influence the behavior of African Americans across the lifespan. For majors only. Prerequisite: SW 130, 230

SW 330 Human Behavior and the Social Environment: Individuals**credit 3 hrs.**

This course is one of two courses on Human Behavior in the Social Environment (HBSE) foundation curriculum content area that are required for undergraduate social work majors. The

course focuses on individual development across the lifespan from conception to death and emphasizes reciprocal relationships between human behavior and the social environments. The content of the course includes empirically based theories and knowledge of the biological, sociological, cultural, psychological, and spiritual development across the life span. It is the beginning of the study of an ecological systems perspective for understanding and assessing human development throughout the life cycle. Information on ways social systems promotes or deters maintaining or achieving health and well-being, especially in the African American experience, is also included. For majors only. Prerequisites: Social Work 130, SW 230.

SW 331 Human Behavior and the Social Environment: Larger Systems

(DESIGNATED SERVICE-LEARNING COURSE)

credit 3 hrs.

This course is one of two courses of Human Behavior in the Social Environment (HBSE) in the social work foundation curriculum content area that is required for social work majors. This course examines mezzo, macro systems' influence on diverse populations, with particular emphasis on populations-at-risk and oppressed groups. It also looks at the values and ethics of the social work profession as applied to these larger systems. Major theories of stress and social support will also be covered. Examination of the implications of social work values and theory for global concern, such as human diversity, international social justice, and eco-environmental protection will be emphasized as important areas of concern for social work students. For majors only. Prerequisites: Social Work 130, SW 230.

SW 312 SW Seminar I: Experiential Practices of Social Work

credit 1 hr.

This course is the first of a series of three specific social work courses designed to give students practical experiences of social work. In this course, students will learn about the range of roles that social work practitioners may have throughout their career.

SW 332 Child Maltreatment I

credit 3 hrs.

This course emphasizes the following: the cause and effects of child maltreatment, assessment of children and families, the intervention methods used to protect children and the provision of effective services to children and families. Students learn the roles and responsibilities of child welfare workers, particularly those related to reunification, the principles of permanency planning, the legal systems and procedures related to child protection and out-of-home placement.

SW 333 Social Work Practice with Individuals

(DESIGNATED SERVICE-LEARNING COURSE)

credit 3 hrs.

The purpose of this course is to teach students practice skills that are inherent in the problem-solving process. Skills are taught within the context of the generalist method of social work practice. The course focuses on helping students to integrate social work values and ethics, theoretical constructs about people and problems, and self-awareness into the development of a body of beginning practice skills. Students are provided essential knowledge about working with individuals at the micro level. Emphasis is placed on students integrating their understanding of the person-in-environment configuration into the development of basic practice skills. Students are taught the entire problem-solving process (Generalist Intervention Model), with a focus on relationship building and acquiring basic interviewing skills. For majors only. Prerequisites: SW 130, SW 230.

SW 334 Social Work Practice with Families and Groups

(DESIGNATED SERVICE-LEARNING COURSE)

credit 3 hrs.

The purpose of this course is to teach students practice skills that are inherent in the problem-solving process. Skills are taught within the context of the generalist method of social work practice. The course focuses on helping students to integrate social work values and ethics, theoretical constructs about people and problems, and self-awareness into the development of a body of beginning practice skills. Students are provided essential knowledge about working with individuals at the micro level. Emphasis is placed on students integrating their understanding of the person-in-environment configuration into the development of basic practice skills. Students are taught the entire problem-solving process (Generalist Intervention Model), with a focus on relationship building and acquiring basic interviewing skills. **For Majors Only** Prerequisites: SW 130, SW 230.

SW 335 Family and Child Welfare

credit 3 hrs.

This course focuses on current policy and practice in the field of child welfare. The varied family forms and

child welfare services are explored, including foster family, group care, institutional placement of children, and adoption. A central concern of the course is the impact of the changing role of the family on child welfare policy and practice.

SW 336 Introduction to Social Gerontology

credit 3 hrs.

The course provides the student with the opportunity to acquire knowledge about the physical, social, and psychological processes of aging. This knowledge is intended to help the student understand the older person as a person. The course includes theories of adjustment, role change, social relationships, and the social forces that influence the aging process. Opportunities and constraints imposed by an urban industrial society on the aged are included. This course also provides information about programs and services for the older adults.

SW 337 Social Welfare Policy

(DESIGNATED SERVICE-LEARNING COURSE)

credit 3 hrs.

This course provides an overview of the historical development, pertinent concepts, and definitions associated with social welfare problems and social policy. It focuses on the social, economic, and political forces that affect the social welfare system. The development of programs to remedy poverty and related social problems are examined. The effect of racism and sexism as direct and indirect factors contributing to social problems are discussed. Specific content includes the influence of societal values and political-economic schools of thought as well as cultural traditions formulation and funding of public assistance programs, and the analysis, implementation and implications of social welfare policies. The roles and responsibilities of social workers in policy and program development, implementation and evaluation also discussed. For majors only. Prerequisites: SW 130, SW 230

SW 338 SW Ethics and Cultural Issues

credit 3 hrs.

This course examines social work values in the context of ethical decision making in social work practice. Students will learn to apply principles, techniques and tools that can be used for ethical assessment and decision making. They will also learn to recognize ethical issues in social work practice and examine how values affect decision making. Additionally, this course will focus on the strengths and challenges faced by diverse population groups including, but not limited to, people of color; gay, lesbian, and bisexual individuals; people with disabilities; religious minorities; and the elderly. Finally, students will learn the characteristics of culturally competent social work practice and how to apply the knowledge, values and skills to different groups. For majors only. Prerequisite: SW 130, SW 230

SW 339 Child Maltreatment II

credit 3 hrs.

The second course in the Child Welfare Services and Certification Program emphasizes the following: family preservation, foster care, adoption, and permanency planning. In this course, the philosophy and principles behind family preservation will be discussed followed by an examination of services that are built on those principles. When they cannot remain intact, but hopes of reuniting, foster care, kinship care, or some other form family of out-of-home care is implemented. When family reunification is not an option, forms of permanency planning including adoption are implemented. This course will describe and examine these processes and services.

SW 411 SW Seminar II: Career Development I

credit 1 hr.

This course is the second of a series of three specific social work courses designed to give students practical experiences of social work. Specifically, this course gives students an in-depth examination of the steps necessary to transition from BSW student to graduate or early career professional. This course focuses on graduate education preparation, social work licensure, and pathways necessary to achieve the career that they seek. For majors only. Prerequisite: SW 312

SW 412 SW Seminar III: Career Development II

credit 1 hr.

This course is the last of a series of three specific social work courses designed to give students practical experiences of social work. In this course, students continue learning about a variety of SW career opportunities taught in SW 411. The primary focus of topics covered in this course are: developing job search techniques, career planning, resume and portfolio development, life-long wellness, preparation for social work mastery exams, and post graduate management of financial responsibilities. For majors only. Prerequisites: SW 312, SW 411

SW 430 Selected Topic Course

credit 3 hrs.

This course will provide senior-level relevant and cutting-edge content about current issues, modalities, and interventions to enhance preparation for social work practice and graduate school.

SW 431 Aging and Issues in Later Life

credit 3 hrs.

This course examines contemporary and cultural attitudes towards death and dying and the grief process. Students are provided the opportunity to understand the approach towards death from the psychological, social, moral, cultural, and ethical perspectives. Various factors, situations and circumstances surrounding death are explored including death due to accidents, death of children, factors that precipitate death, the personal struggle of the terminally ill, the impact of death on the family and significant other, and euthanasia.

SW 433 Applied Social Work Research I**credit 3 hrs.**

This is the first of two courses designed to provide students the opportunity to integrate content of the social work curriculum with practice-informed research and research informed practice. The course provides and overview of research methods and uses of research in generalist social work practice. Students will learn research methodology both qualitative and quantitative; understanding and interpreting published research especially research conducted on diverse populations. Some of the key topics covered in the course include: evidence-based practice, research as critical thinking, research-based knowledge, developing research questions and formulating hypotheses, sampling, data collection, measurement, and analysis. For majors only. Prerequisites: SW 120, SW 230; SSCJ 333.

**SW 435 Social Work Practice with Communities and Organizations
(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

This course focuses on understanding organizations and communities. It considers some of the most prevalent social work theoretical approaches and intervention strategies in working with communities and organizations. This course builds on the Generalist Intervention Model by applying it to macro systems. Theories and skills taught in this class are operationalized through experiential activities and assignments. For majors only. Prerequisite: SW 130, SW 230.

SW 436 Women's Issues in Contemporary Society**credit 3 hrs.**

The course will include an analysis of women's status and position within our society; based on the premise that women's experiences emerge from society's social, political, and economic structures. Feminist theory is explored. General content areas include feminist history, women and employment, women and poverty, women and mental health, women and violence, women and social change, women of color, women and sexuality, and feminism and men. Specific issues to be included are sexism and social work, battered women, incest, pay equity, pornography, eating disorders, sexual harassment, older women, rape, teenage pregnancy, women and crime, women and power, and prostitution.

SW 438 SW Program Evaluation**credit 3 hrs.**

This course is designed to help students understand and use an analytic approach to building knowledge for practice and evaluating service delivery in all areas of practice. This course builds on SW 337 (Policy) and SW 433 (Research Methods) to provide students with an opportunity to complete program evaluation in partnership with their Field Instruction placement. Different theoretical bases and methodological procedures for social work research are addressed, as well as basic statistical procedures and technological advances in both quantitative and qualitative designs. Ethical standards of scientific inquiry will be emphasized, with attention to protecting and promoting the well-being of vulnerable and oppressed populations. At the end of this course, students will present a completed research project in the form of a program evaluation. For majors only. Prerequisite: SW 130, SW 230, SW 433.

**SW 439 Field Practice Preparation
(DESIGNATED SERVICE-LEARNING COURSE)****credit 2 hrs.**

This course is designed to prepare students for their field placements by providing opportunities for critical assessment of personal, societal, professional values and ethics and to ensure that students develop appropriate knowledge and communication skills for observing, processing and recording data based on the generalist method. In addition, it will serve to introduce students to agencies and organizations representing different fields of social work practice and provide guidance in helping students select appropriate settings for field placement assignments. For majors only. Prerequisites: SW 130, SW 230, SW 330, SW 331, SW 333, SW 334, SW 337

SW 490 Field Instruction
This course is an educationally directed field practicum that provides students with teaching/learning experiences in a social service setting. A generalist framework is utilized to intervene with individuals, families, groups, organizations, and communities. For majors only. Prerequisites: Completion of all general education courses (except Senior Seminars); Minimum GPA of 2.5 in the following courses: SW 130, SW 230, SW 231, SW 330, SW 331, SW 333, SW 334, SW 337, SW 433, SW 435, and SW 439.

credit 10 hrs.

SW 490S Field Instruction Seminar
This course is designed to ensure that professional behavior, classroom learning and social work knowledge and values are appropriately integrated with field practicum experiences. A generalist teaching/learning approach will be employed to ensure that students have opportunities for processing and understanding their engagement in research and evaluation activities, and direct contact with individuals, groups, organizations and communities from a person-in-environment perspective. For majors only.

credit 0 hrs.

CHILD PROTECTIVE SERVICES

An attractive career in the field of social work is that of Child Protective Services, helping children and families through the prevention and treatment of child abuse and neglect. The Social Work Program offers a certificate in Child Protective Services to those students interested in working with abused and neglected children and their families. The certificate is available to any student who completes the prescribed program of study described below.

PROGRAM OF STUDY FOR CERTIFICATE IN CHILD PROTECTIVE SERVICES

		SCH
SW 230	Intro to Social Work	3
SW 332	Child Maltreatment I	3
SW 339	Child Maltreatment II	3

Total SCH 9

PROGRAM OF STUDY FOR CERTIFICATE IN INTERDISCIPLINARY GERONTOLOGY

Aging is a growing field of practice, and social workers are having an impact on this group. With the aging of the Baby Boom generation, people 65 and older will represent one in every five Americans by 2030. The social work program offers a certificate in interdisciplinary gerontology designed to improve programs and services to meet the needs of this growing, diverse and population and their families. The certificate is available to any student who completes the prescribed program of study described below.

		SCH
SW 336	Introduction to Social Gerontology	3
SW 431	Aging and Issues in Later Life	3
PHE 230	Health and Aging	3
CFD 452	Families in Later Life	3

Total SCH 12

*(All prescribed courses must be completed with a grade of “C” or better to receive either certificate.)

PROGRAM OF STUDY IN SOCIAL WORK

FRESHMAN YEAR

<i>First Semester</i>			<i>Second Semester</i>		
		<i>SCH</i>			<i>SCH</i>
ENG 131	Analysis & Argumentation	3	ENG 132	Information, Literacy & Research	3
MATH 132	General College Math I	3	MATH 134	General College Math II	3
HHS 111	The College Experience I	1	BIO/CHEM/ESC/PHYS	General Science Lecture	3
EC 130	Introduction to Economics	3	BIO/CHEM/ESC/PHYS	General Science Lab	1
HIST	Intro to Afr. American History	3	HHS 112	The College Experience II	1
	Health and Wellness	2	*SW 130	Critical Thinking for SW Elective	3
Total		15	Total		17

SOPHOMORE YEAR

<i>First Semester</i>			<i>Second Semester</i>		
		<i>SCH</i>			<i>SCH</i>
ENG 237	Oral Communication	3	*SW 232	Writing for Social Work II	3
FR/SP/AR 233	Intermediate Foreign Language	3	*SW 236	SW AA Experience	3
PSY 230	Introduction to Psychology	3	*SW 332	Child Maltreatment I	3
*SW 230	Introduction to Social Work	3	*SW 330	HBSE I	3
*SW 231	Writing for Social Work I	3	SOC 230	Introduction to Sociology	3
HHS 211	Professional Pathways Dev. I	1	HHS 212	Professional Pathways Dev. II	1
Total		16	Total		16

JUNIOR YEAR

<i>First Semester</i>			<i>Second Semester</i>		
		<i>SCH</i>			<i>SCH</i>
SSCJ 333	Social Science Statistics	3	*SW 334	Social Work Practice II	3
*SW 437	SW Race, Ethnicity, & Health	3	*SW 338	SW Ethics/Cul Issues	3
*SW 331	HBSE II	3	*SW 339/431	Ch. Mal II or Aging & Issues	3
*SW 333	Social Work Practice I	3	*SW 337	Social Welfare Policy	3
*SW 336	Intro to Social Gerontology	3	CFD 452/Elective	Fam in Later Life/or Elective	3
	Elective	3	*SW 312	SW Seminar I	1
Total		18	Total		16

SENIOR YEAR

<i>First Semester</i>			<i>Second Semester</i>		
		<i>SCH</i>			<i>SCH</i>
*SW 439	Field Practice Preparation	3	*SW 490	Field Instruction	10
*SW 433	SW Research Methods	3	*SW 490S	Field Instruction Seminar	0
*SW 435	Social Work Practice III	3	*SW 438	SW Program Evaluation	3
*SW 430	Selected Topic Course	3	*SW 412	SW Seminar III	1
PHE 330/Elective	Health & Aging/or Elective	3			
*SW 411	SW Seminar II	1			
Total		16	Total		14

Total SCH 128

SCH in Major* 73

*Major courses require a "C" or better.

PE/HE = HE 120; HE 220; MS 121, 121L; MS 122, 122L; MUS 113, 213

Child Protective Services Certificate Courses (9 hours): SW 230, SW 332 & SW 339

Interdisciplinary Gerontology Certificate Courses (12 hours): SW 336, SW 431, PHE 330 & CFD 452

MILITARY SCIENCE PROGRAMPROGRAM

The mission of the program is to provide basic military education and, in conjunction with other college disciplines, to develop individual character and attributes essential to any Army Officer. Benedict College offers an Army Reserve Officers Training Corps (ROTC) program to all qualified students on a voluntary basis through a partnership agreement with the University of South Carolina. classroom instruction for military science courses on the University of South Carolina campus.

All students who are interested in ROTC are encouraged to pursue Basic Course ROTC studies for a period of two (2) years as an elective. Students of the College who successfully complete the Basic Course may apply for admission to the Advanced Course ROTC, which is pursued during the final two years of their college enrollment. Those students who elect not to enroll in the Basic Course may also apply for admission into the Advanced Course, but must successfully complete a four-week basic summer camp between their second and third years of college. Students who have reserve or active duty military service experience may apply for advanced placement in the program once they are academically aligned.

Requirements for enrollment in Basic Course ROTC:

Be a citizen of the United States.

Be a regularly enrolled student of the College.

Be morally qualified as prescribed by the Department of the Army. Sign a loyalty oath.

Requirements for enrollment in Advanced Course ROTC: Be a citizen of the United States.

Be at least 17 years of age.

Successfully complete the first two years of a 4-year ROTC course; or complete a basic summer camp of at least 64 weeks duration; or receive credit in lieu of or as a result of previous military service. Be eligible to qualify for appointment as Second Lieutenant prior to reaching 30 years (non- veterans) of age.

Be selected by the Professor of Military Science.

Agree to accept a commission if offered and serve for the period prescribed. Enlist in the Army Reserve; secure parents' or guardian's consent if under age 18. Satisfactorily comply with loyalty requirements.

Meet all requirements prescribed by the Department of the Army.

Scholarships

The Army ROTC Scholarship Program is designed to offer financial assistance to outstanding young men and women who meet all qualifications and are interested in the Army as a career. The three- year scholarship may be offered to rising sophomores who have completed one year of Army ROTC Training. The two-year scholarship is offered to students in their sophomore year who will complete two years of Army ROTC Training and plan to enter the Advanced Course.

General Information

All ROTC students enrolled in the Advanced Course Receive pay and allowances that total over \$9,000.00 during their junior and senior years.

Summer Camp Training

ROTC students enrolled in the Advanced Course attend a six-week advanced camp training period at the Department of the Army Selected Army training camps between the third and fourth years of Military Science. Students applying for admission into the advanced course without having completed the Basic Course are required to attend a six-week basic camp between their second and third year of college in addition to the six-week camp mentioned above.

Simultaneous Membership Program (ROTC/SMP)

The ROTC/SMP is a voluntary officer training program which requires Reserve Component (USAR) or National Guard (NG) enlisted status for eligibility. It is an enlistment option available to prior and non-prior service applicants qualified for enlistment in the USAR or NG who can meet the criteria for enrollment in the ROTC Advanced Course. The ROTC/SMP program allows cadets to participate with a reserve component unit during weekend Inactive Duty for Training assemblies and two-week Annual Training (normally during the summer months) performing the duties of a commissioned officer under the supervision of a commissioned officer. ROTC/SMP provides cadets with pay in the grade of E5 (Sergeant) as well as ROTC pay, plus advanced leadership training with USAR/NG units.

Uniforms and Equipment

The necessary training equipment, including uniforms and textbooks, is loaned to the College by the Department of the Army and issued to ROTC students by the College at no extra cost. Each student is responsible for the care and maintenance of equipment issued him or her. All uniforms, less specified pieces, must be turned in before leaving for the summer or earlier if a student drops any ROTC COURSE. Failure to turn in all assigned equipment will result in a hold being placed upon the student's Records.

Grading

The system of grading utilized by the instructors of Military Science is similar to that used in academic departments and conforms to that prescribed by the College.

Academic Credit

Academic credit toward the granting of a degree is given for the completion of military courses on the same basis as for non-military courses. With permission of the student's advisor, department head and the Vice President for Academic Affairs, military science courses may be taken in lieu of other social science courses to help satisfy the College's General Education requirement. MS 232 U.S. Military History and MS 431 Theory and Dynamics of Military I are particularly suitable courses.

Distinguished Military Students and Graduates

Outstanding students are designated as Distinguished Military Students at the beginning of the fourth year of Military Science. These students may apply for commissions in the Regular Army. Upon graduation, if these students have continued to remain outstanding, they may be designated as Distinguished Military Graduates. They then are eligible for consideration and appointments as Regular Army Officers by the Department of the Army.

Program of Instruction

The general objective of the course of instruction is to produce quality junior officers who, by their education, training, and inherent qualities, are suitable for continued development as officers in the United States Army.

Instruction will cover military fundamentals common to all branches of the service.

The complete course of instruction comprises four years with not less than 30 hours of instruction in each of the first two years of the course and 60 hours of instruction in each of the last two years of the course.

In the first year of the Basic Course, instruction consists of 3 hours per week: 1 hour lecture and 2 hours leadership laboratory.

In the second year of the basic course, instruction consists of 4 hours per week: 2 hours lecture and 2 hours leadership laboratory.

In the two years of the Advanced Course, instruction consists of 5 hours per week: 3 hours lecture 3 hours of classroom instruction and 2 hours leadership laboratory.

Special courses and drill formations may be held as deemed appropriate and necessary by the Professor of Military Science with the concurrence of the College administration.

MILITARY SCIENCE COURSES**MS 121 - Fundamentals of Military Science****credit 2 hrs.**

An introduction to the mission, organization and history of ROTC: Military and civilian obligation in relation to National Security; Individual Arms and Marksmanship Techniques, Emergency Medical Treatment. The students will receive information that will help them understand and prepare military correspondence (the Army Writing Style). Leadership Laboratory training to include thorough indoctrination in military courtesy and customs of the service, drill experience, development of initiative and self-confidence.

MS 122 - Introduction to the Army**credit 2 hrs.**

A discussion of the mission and responsibilities of the United States Military Forces in support of National Security with emphasis on the role of the individual, participating citizen. Students will be introduced to Map Reading Techniques. Leadership Laboratory is a continuation of MS 101 Laboratory.

MS 231 - Fundamentals of Military Leadership**credit 3 hrs.**

A detailed study of the applicability of leadership principles, traits, and techniques in all job areas. Additionally, an appreciation is developed for leadership counseling techniques. The organization of the Army culminates this course.

MS 232 - Fundamentals of Military Decision Making**credit 3 hrs.**

A detailed study of orienteering to include basic fundamentals of map reading, grid systems, scale and distance, elevation and relief, military symbols, direction and location, and utilization of the declination diagram. Additionally, students will discuss the code of conduct, the principles of war and reinforce preparation of military correspondence. Leadership Laboratory is a continuation of M.S. 201 Laboratory.

MS 121L/122L/231L/232L - Basic Leadership Laboratory**credit 0 hrs.**

Leadership Lab is in conjunction with ARMY 101, 102, 201, 202. It is a period which supplements and reinforces, through practical application, the fundamentals taught in each of the Military Science courses. Leadership Lab is a progressive learning experience designed to produce effective and efficient Second Lieutenants for the United States Army. CREDIT included with lecture

MS 341 - Advanced Military Decision Making**credit 4 hrs.**

How to prepare and conduct military training, to include presentation and communication techniques. Included in this phase of instruction is a 10-minute oral presentation, how to cope with basic problems, i.e., discipline and motivation, encountered in small units, leadership training designed to further develop planning and organizational skills, fundamentals of offensive and defensive tactics of war.

MS 342 - Applied Military Leadership**credit 4 hrs.**

A review of the principles and fundamentals of small unit tactics, and the application of the principles of offensive and defensive combat to units of the infantry battalion. Familiarization with characteristics, operation and employment of small unit weapons, communication systems and equipment, and continued development of selected Military Skills. Orientation relative to administrative procedures, required standards of performance, and general conduct of training at Warrior Forge, the Leadership Development and Assessment Course. Continuation of Leadership Laboratory Training conducted in M.S. 301.

MS 341L/342L/441L/442L - Advanced Leadership Laboratory**credit 0 hrs.**

Leadership Lab is in conjunction with each of the aforementioned M.S. level courses in the advanced course. It is a period which supplements and reinforces, through practical application, the fundamentals taught in each of the Military Science courses. Leadership Lab is a progressive learning experience designed to produce effective and efficient Second Lieutenants for the United States Army. CREDIT included with lecture

MS 441 - Leadership and Management Seminar I**credit 4 hrs**

Leadership management and professional development, a study of the U.S. Army Personnel Management System, methods of conducting Command and Staff and Unit meetings, how to prepare military correspondence, ethics and professionalism, military justice.

MS 442 - Leadership and Management Seminar II**credit 4 hrs.**

Management simulation exercise and Active Duty orientation, small unit effectiveness and Army Training Management, the U.S. Army Logistics system, interpersonal skills, counseling techniques, and personnel evaluation, the Law and Principles of War, Code of Conduct and Geneva Convention, customs and courtesies of an Army officer.

**CLUBS, ORGANIZATIONS AND SPECIAL PROGRAMS IN THE
MILITARY SCIENCE DEPARTMENT**

Each year, over 800 special training opportunities are extended to cadets through the Cadet Professional Development Training (CPDT) program. The CPDT program supplements campus training with practical leader development experiences and some additional skill identifier awarding courses. Cadets train in Army schools and with Active and Reserve units. CPDT consists of two subprograms, Cadet Troop Leader Training (CTLT) and Cadet Practical Field Training (CPFT).

Cadet Leader's Training Course (CLTC)

Location: Fort Knox, Kentucky. LTC is four weeks of intense classroom and field training held in the summer at Fort Knox, KY. This course is an accelerated version of the two years of leadership development training Cadets Receive in the Basic Course. By transforming yourself through rigorous training, you will qualify for enrollment in Advanced Army ROTC on campus - provided you have two years of college remaining (undergrad or graduate).

The benefits of this leadership training will extend well beyond your college years into any career field you choose. You may even qualify for a two-year scholarship that may take care of your college tuition and many other expenses. For more information go to the LTC Website: http://www.goarmy.com/rotc/leaders_training.jsp.

Basic Airborne School (BAC)

Location: Fort Benning, GA. The Basic Airborne Course is a three-week training program conducted by the Airborne Department, USAIC, Fort Benning, GA that trains students the use of the parachute as a means of combat deployment. Successful completion qualifies cadets to wear the Parachutist Badge. Students begin their first week on the ground, learning the basics of parachute landings, and start a vigorous training program. During the second week, called tower week, proper exiting of the plane will be mastered. As a cadet, you will be then given the opportunity to parachute From a 250 foot high tower. The third and final week is the jump week. Cadets make five jumps from either a C-130 or C-141, including one night jump and two combat jumps with full combat gear.

Air Assault School (AAS)

Location: Ft. Campbell, Kentucky. The AAS is a 10-day course of instruction that trains cadets on Combat Assault Operations involving associated equipment and U.S. Army rotary-wing aircraft. Successful completion qualifies cadets to wear the Air Assault Badge. This course is available at a number of installations, but the largest is located at the air assault home of Ft. Campbell, Kentucky. This eleven-day course is very demanding both physically and mentally, involving obstacle courses and several long ruck marches. You will learn the basics of aircraft familiarization and Recognition, sling load operations, and rappelling.

Cultural Understanding and Language Proficiency (CULP). Primarily following their sophomore year, CULP enables Cadets to spend one month in support of Army Security Cooperation programs for U.S Embassies worldwide, including military exercises, humanitarian aid missions, and military to military contacts English language training teams. During the summer of 2014 Gamecock supported Thailand, Ukraine, Africa and Kosovo. All participants are required to complete a short research paper and presentation on a topic related to their country of study, in addition to their practical field work.

Cadet Troop Leader Training (CTLT)

CTLT provides select advanced camp graduates the opportunity to increase their leadership experience through assignments to platoon leadership positions with active duty Army units for 3 or 4 weeks. This challenge is a definite learning experience, allowing you to gain a perspective on what you will be facing as a future officer. Generally, you are placed in a platoon leader position, leading 30+ soldiers and responsible for millions of dollars of equipment! While there, the cadet will enhance leadership skills and learn tasks associated with being an officer in the Army. If a cadet is assigned to a unit on jump status, and the cadet is already Airborne qualified, the cadet may participate in unit jumps on a permissive basis with approval by the CG and Cadet Command. The cadet receives an OER upon completion.

Nurse Summer Training Program (NSTP)

This training is only available to nurse cadets and provides opportunities to develop and practice a clinical phase of instruction at Army Medical Command Treatment Facilities worldwide. The cadets receive an OER upon completion.

Air Force Reserve Officer Training Corps (AFROTC)

AFROTC is a nationwide program that allows students to pursue commissions (become officers) in the United States Air Force (USAF) while simultaneously attending college. AFROTC classes are held on college campuses throughout the United States and Puerto Rico; students can register through normal course registration processes. AFROTC consists of four years of Aerospace Studies classes (Foundations of the USAF, Evolution of USAF and Space Power, Air Force Leadership Studies, and National Security Affairs/Preparation for Active Duty), and a corresponding Leadership Laboratory for each year (where students apply leadership skills, demonstrate command and effective communication, develop physical fitness, and practice military customs and courtesies). College students enrolled in the AFROTC program (known as "cadets") who successfully complete both AFROTC training and college degree requirements will graduate and simultaneously commission as Second Lieutenants in the Active Duty Air Force.

The AFROTC program is currently offered at the University of South Carolina, but they have a crosstown agreement that allows our students to enroll in AFROTC and become full-fledged cadet participants. For more information on AFROTC course descriptions, please review <http://bulletin.sc.edu/content.php?catoid=37&navoid=798> and search classes with "AERO" as the prefix. For more information on the AFROTC program, please review <http://artsandsciences.sc.edu/aero/>.

PROGRAM OF STUDY IN MILITARY SCIENCE

FRESHMAN YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
*MS 121	Fundamentals of Military Sci.	2	*MS 122	Introduction to the Army	2
*MS 121L	Basic Leadership Laboratory	0	*MS 122L	Basic Leadership Laboratory	0
			*PE 320	Swimming	2
Total		2	Total		4

SOPHOMORE YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
*MS 231	Fundamentals of Mil. Lead	3	*MS 232	Fundamentals of Mil Decision M	3
*MS 231L	Basic Leadership Laboratory	0	*MS 232L	Basic Leadership Laboratory	0
*HE 220	Stress Management	2			
Total		5	Total		3

JUNIOR YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
*MS 341	Adv. Military Decision Making	4	*MS 342	Applied Military Leadership	4
*MS 341L	Adv. Leadership Laboratory	0	*MS 342L	Adv. Leadership Laboratory	0
Total		4	Total		4

SENIOR YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
*MS 441	Leadership and Mgt Sem. I	4	*MS 442	Leadership and Mgt. Sem II	4
*MS 441L	Adv. Leadership Lab	0	*MS 442	Adv. Leadership Lab	0
Total		4	Total		4

Total SCH 30

SCH in Major* 30

*Major Courses require a "C" or better.

SCHOOL OF ARTS AND SCIENCES

Administration

Dr. Richard C. Miller, Interim Dean

Departments

Communication and Arts

Mrs. Gina Moore, Chair

Criminal Justice Administration and Social Sciences

Biology, Chemistry, and Environmental Sciences

Dr. Larry L. Lowe, Chair

Computer Science, Physics, and Engineering

Dr. Fouzi Aammash, Chair

COMMUNICATION AND ARTS DEPARTMENT

Required courses

ENG 330	Critical Thinking in Literature
ENG 334	Modern English Grammar
ENG 336	English Literature

Choose two of the following:

ENG 234	Linguistics
ENG 235	English as an Alternative Language
ENG 236	Literature in the African Diaspora
ENG 331	Studies in African American Literature
ENG 333C	Technical Communication
ENG 337	Literature and Media for Adolescents
ENG 339	Literary Criticism
ENG 433	Studies in American Literature
ENG 436	Studies in English Literature

ENGLISH COURSES**AS 111, 112, and 221 Seminars****credit 4 hrs.**

(Course descriptions are located in the Academic Department Cross-Disciplinary Courses section of the catalogue.)

ENG 131 Analysis and Argumentation**credit 3 hrs.**

This course emphasizes critical reading and writing. It is designed to help students clearly express ideas using appropriate academic language by demonstrating reasoning and understanding of audience, context, and the mechanics of academic writing in an organized and coherent manner. Using the writing process, students will construct convincing, well-developed argumentative and analytical writings that synthesize, document, and respond to various texts. Students will read strategically and critically to extract meaning through interaction with written and oral language.

ENG 132 Information Literacy and Research**credit 3 hrs.**

This course reinforces the critical reading, analytical writing and synthesis skills introduced in ENG 131, with emphasis placed on information literacy and research writing. Students will use qualitative and quantitative research strategies to effectively identify, locate, evaluate, and responsibly use and share information relative to complex, real-world topics or issues. Using APA style and documentation, students will use primary and secondary sources to produce a well-written researched paper. Prerequisites: Eng 131 Analysis and Argumentation with a grade of "C" or better.

ENG 236 Literature in the African Diaspora**credit 3 hrs.**

This course engages students in critical questions about the translation of oral cultures into writing, the representation of "otherness," access to history, the legacy of colonialism, the implications and consequences of neocolonialism and current attempts at "colonizing in reverse." Prose, poetry, drama, and film by black writers in Africa, the Americas, Asia, and Europe will be introduced.

ENG 237 Oral Communication**credit 3 hrs.**

This course is designed to improve the students' interpersonal, intrapersonal and public communication abilities to analyze topics, support assertions with proof, amplify ideas, structure messages, use language in appropriate and imaginative ways, and deliver messages with effective vocal and physical behavior. The content touches upon the history, theories, and professional practices of speech communication. Sensitivity to intercultural diversity is a part of the course.

**ENG 238 Advanced Speech Communication
(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

This course involves a study of rhetorical principles and models of speech composition in conjunction with the preparation and presentation of specific forms of public address. This course is designed to provide students the soft skills needed to effectively engage in workplace communication such as interviewing, group communication, and public communication. Students may earn up to 40 hours of service-learning credit. Appropriate for non-majors. Prerequisites: ENG 131 Analysis and Argumentation; ENG 132 Information Literacy and Research; ENG 237 Oral Communication.

**ENG 239 Language, Literacy, and Power
(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

This experiential course introduces students to the discipline of English as a major using language as a context for understanding career pathways in the professional environment. Simultaneously, students will examine how the power of rhetoric and ethnographic methodologies can be transformative in the workplace and in wider public settings. Students may earn up to 40 hours of service-learning credit.

**ENG 330 Critical Thinking in Literature
(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

This course introduces critical thinking through the study of critical theories and the application of critical strategies in organizing effective arguments and responses to oral and written texts.

ENG 331 Studies in African-American Literature**credit 3 hrs.**

This course surveys African-American literature that spans the period from the early Colonial era to the present. Readings will chart the evolution of African-American literary traditions and movements placing emphasis on moral, social, intellectual, and political currents reflected in the writings. Writers may include Hurston, Baldwin, Gates, and DuBois, Washington, Morrison, and Angelou.

ENG 332 Careers in English Practicum**credit 3 hrs.**

This course provides students with experiences in practical settings under the supervision of an assigned instructor in preparation for the internship experience. Placements can be in an on or off-campus setting. Students must complete 40 hours of practicum experience. Prerequisite: ENG 239 Language, Literature, and Power.

ENG 334 Modern English Grammar**credit 3 hrs.**

The course focuses on the analytical methods applied to English grammar, with stress on traditional, structural, and transformational-generative grammars. Emphasis is on the components of English grammar: Phonology, morphology, syntax, semantics, pragmatics, etymology, and orthography.

ENG 335 History of the English Language**credit 3 hrs.**

The course traces the development of the English language from the earliest period to the present, introducing and emphasizing sounds, inflections, syntax, vocabulary, and usage of the English language during these periods.

ENG 336 English Literature**credit 3 hrs.**

This course surveys major English works of literature from the Middle Ages to the present. Emphasis is placed on literary trends, genres, movements, and periods.

ENG 338 Contemporary Literature**credit 3 hrs.**

This course surveys selected American and British novels, short stories, drama, poetry, and other writings from 1900 to the present.

ENG 339 Literary Criticism**credit 3 hrs.**

This course is designed to acquaint students with the major texts and schools of literary criticism from ancient to modern times and to provide students with standards of judgment. It also provides practice in analyzing literary works. Prerequisite: Eng 330 Critical Thinking in Literature.

ENG 433 Studies in American Literature**credit 3 hrs.**

This course surveys selected major American authors from selected works of the Colonial Period to the present time with attention to prominent themes, contemporary theoretical issues, literary techniques and genres, and relevant cultural and historical contexts. Writers may include Emerson, Thoreau, Hemmingway, Whitman, Dickinson, and Poe. Prerequisite: ENG 339 Literary Criticism.

ENG 436 Studies in English Literature**credit 3 hrs.**

This course surveys selected major English authors with attention to prominent themes, contemporary theoretical issues, literary techniques and genres, and relevant cultural and historical

contexts. In addition to Shakespeare, writers may include Chaucer, Conrad, Joyce, Milton, Swift, Spenser, and Yeats. Prerequisite: ENG 336 English Literature.

ENG 439A Research Methods**credit 3 hrs.**

This course explores and engages students in the interdisciplinary research methods used in the field of English. This methodology course will give English majors access to literary analysis methodologies as well as empirical research. Specifically, students will conduct literary research, consult online research databases, and select from various primary and secondary sources. The course will focus on location, evaluation, management, and use of information and will combine lecture and hands-on learning where students will apply the general principles and strategies presented in class to their specific research projects. Prerequisite: ENG 339 Literary Criticism.

ENG 439C English Research Project**credit 3 hrs.**

This course examines the methods, practices, and research tools in the field of English. Students' research projects explore current concerns and problems in the discipline. These projects culminate in the Senior Paper demonstrating an in-depth analytical treatment of a topic in the field, the application of research materials and styles, and a thorough grasp of language forms. Prerequisite: ENG 439A Research Methods.

ENG 440 Professional Internship for Careers in English**credit 3 hrs.**

This course involves placement of students in selected agencies to work in specific areas requiring particular professional skills in the workplace under the supervision of an assigned instructor. Placements can be in an on or off-campus setting. Students must complete 120 hours of internship experience. Prerequisite: ENG 332 Careers in English Practicum.

ENG 220 Reading and Vocabulary Development**credit 2 hrs.**

This course will focus on vocabulary acquisition and application and critical reading skills essential for lifelong learning. This course is designed to advance reading skills and to use reading strategies to help students improve in the areas of critical reading and critical thinking.

ENG 230 Digital Rhetoric**(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

This composition course engages students in mediums within and beyond traditional "writing". In addition to advanced writing principles, the course primarily provides students with hands-on opportunities to interpret and compose in both digital and print contexts across a variety of forms. Students may earn up to 40 hours of service-learning credit. Prerequisites: ENG 131 Analysis and Argumentation; ENG 132 Information Literacy and Research.

ENG 231 Literature as Life**credit 3 hrs.**

This is an introductory literature course for non-English majors that explores themes about real-world experiences in selected works of literature. Emphasis is focused on the application of themes in the literary genres, basic techniques of literary terminology and basic analysis that can be applied to daily living in a global society. Prerequisites: ENG 131 Analysis and Argumentation; ENG 132 Information Literacy and Research.

ENG 232 Masterpieces of World Literature**credit 3 hrs.**

This is an advanced survey course intended for students with literature backgrounds and for English majors. The course covers major works of world literature from its origins to the present. Works studied are selected from literary genres that explore diverse cultures and topics from local and global perspectives. Emphasis is placed on contextual analyses that address contemporary issues relative to past challenges facing cultures and societies. Prerequisites: ENG 131 Analysis and Argumentation; ENG 132 Information Literacy and Research.

ENG 233 Creative and Non-fiction Writing**credit 3 hrs.**

This course introduces theories, techniques, and practices of writing essays, poetry, drama, fiction, and creative nonfiction genres. These genres may include the short story, the novella, writing for the web, blogging, and travel writing. Assignments range from readings and peer critiques to exercises culminating in publishable pieces of original works.

ENG 234 Linguistics**credit 3 hrs.**

This course examines the scientific aspects of human language. Included in this course is the study of elementary concepts of speech production and phonological, morphological, and syntactic components of language and dialects within the central phenomena of theoretical linguistics.

ENG 235 English as an Alternative Language**credit 3 hrs.**

This course guides students who desire to work in an environment that serves populations from limited or non-English speaking backgrounds. The course will examine and apply the rules of English grammar, paragraph relationships, and patterns of essay organization to various written assignments and oral presentations at the college level. Areas of study include the expansion of students' understanding of American culture through various mediums and supplementary materials to improve their skills in listening comprehension, reading, writing, and speaking.

ENG 333A Professional Editing**credit 3 hrs.****(DESIGNATED SERVICE-LEARNING COURSE)**

This course provides skills in revising and editing documents in mixed mediums. Students will learn how to edit articles, online texts, and professional texts to create professional prose. Students may earn up to 20 hours of service-learning credit. Prerequisite: ENG 230 Digital Rhetoric.

ENG 333C Technical Communication**credit 3 hrs.****(DESIGNATED SERVICE-LEARNING COURSE)**

This course includes the development of a technical vocabulary and the study of theoretical aspects of rhetoric, composition, and communication to include procedures and techniques for writing reports, proposals, and similar documents. It includes an examination of social media writings, their practice and application, and the ethics involved in these types of communication. Students may earn up to 20 service-learning hours.

ENG 337 Literature and Media for Adolescents**credit 3 hrs.**

This course is a study of literature relevant to adolescents as it helps students continually evaluate the power of rhetoric through media. Drawing on the literature from developmental psychology to critical theories, this course examines case studies and issues related to adolescents in the context of popular culture and mass media's role in shaping adolescents' attitudes about culture and society.

ENG 435 Teaching of English/Practicum**credit 3 hrs.**

A comprehensive study of concepts, trends, and practices in teaching language and literature to secondary school students is provided in this course. Special emphasis is placed on testing and evaluation appropriate for the teaching of English. Students will write the Senior Paper demonstrating an in-depth, analytical treatment of a topic in the field, the application of research materials and styles, and a thorough grasp of language forms. Students are required to complete twenty (20) hours of practicum experiences.

ENG 435S Special Topics**credit 3 hrs.**

This special topics course will allow studies that are not listed in the regular course offering. The course will allow students to conduct in-depth exploration in a given topic. It may be repeated with departmental permission, provided the topic is different.

ENG 437 Teaching Reading in the Content Areas/Practicum**credit 3 hrs.**

The course provides instruction in the nature of the reading process, formal and informal testing, teaching reading skills, and selecting and evaluating materials. It includes discussion and demonstration of effective practices in teaching reading in the content areas. Students are required to complete twenty (20) hours of practicum experiences.

PROGRAM OF STUDY IN ENGLISH

FRESHMAN YEAR							
First Semester		SCH		Second Semester		SCH	
ENG 131	Analysis & Argumentation	3		ENG 132	Information, Literacy & Research	3	
MATH 132	General College Math I	3		MATH 134	General College Math II	3	
	Science Requirement	4			Global & Intercultural Learning	6	
HIST 130	Intro to Afr. American History	3			Health and Wellness	2	
	Elective	3			Elective	1	
HASS 111	The College Experience I	1		HASS 112	The College Experience II	1	
Total		17		Total		16	
SOPHOMORE YEAR							
First Semester		SCH		Second Semester		SCH	
ENG 237	Oral Communication	3		FR/SP/AR 233	Intermediate Foreign Language	3	
FR/SP/AR 233	Intermediate Foreign Language	3		*ENG 236	Lit. in the African Diaspora	3	
*ENG 239	Language, Literacy & Power	3		*ENG 238	Adv Speech Communication	3	
	Elective (Social Sciences)	3			Elective (Social Sciences)	3	
	Elective	3			Elective	6	
HASS 221	Prof. Pathways Development	2					
Total		17		Total		18	
JUNIOR YEAR							
First Semester		SCH		Second Semester		SCH	
*ENG 330	Critical Thinking in Literature	3		*ENG 332	Careers in English Practicum	3	
*ENG 331	Studies in Afr. Amer. Literature	3		*ENG 334	Modern Eng Grammar	3	
*ENG 335	History of English Language	3		*ENG 336	English Literature	3	
	Elective	6		*ENG 338	Contemporary Literature	3	
				*ENG 339	Literacy Criticism	3	
					Elective	3	
Total		15		Total		18	
SENIOR YEAR							
First Semester		SCH		Second Semester		SCH	
*ENG 433	Studies in American Literature	3		*ENG 436	Studies in English Literature	3	
*ENG 439A	Research Methods	3		*ENG 439C	English Research Project	3	
	Elective	9		*ENG 440	Professional Internship	3	
					Elective	3	
Total		15		Total		12	

Total SCH 128
SCH in Major* 48
*Major courses require a "C" or better.

FOREIGN LANGUAGES

Minor In Spanish

Required courses:

- SP 234 Advanced Spanish I
- SP 235 Advanced Spanish II

Choose four of the following:

- SP 301 Spanish Conversation I
- SP 302 Spanish Conversation II
- SP 303 Spanish Conversation III
- SP 304 Spanish for Business
- SP 305 Hispanic and Latino Culture
- SP 306 Spanish for Judicial System
- SP 307 Spanish for Health and Human Services
- SP 308 Readings in Spanish

Minor In Arabic

Choose five of the following:

- AR 301 Arabic Conversation I
- AR 302 Arabic Conversation II
- AR 303 Arabic for Business and Government
- AR 304 Arabic Culture
- AR 305 Intensive Arabic Review
- AR 306 Arabic by Design

FOREIGN LANGUAGE COURSES

AR 130 Elementary Arabic**credit 3 hrs.**

This course is a prerequisite for Arabic 233 for students with minimal or no experience in the language. It is designed to introduce students to the alphabet and to basic grammar and vocabulary. Currently, a passing score of 60 on the Arabic Placement Test allows a student to exempt Arabic 130,

AR 233 Intermediate Arabic**credit 3 hrs.**

This course is a continuation of Arabic 130. The completion of this course satisfies the General Education Foreign Language Requirement. Emphasis is on practice in speaking, writing, and reading the language in order to develop proficiency. The requirement for enrolling in Arabic 233 is a passing grade in Arabic 130 or a passing score on the Arabic Placement Test. NOTE: A student who fails Arabic 130 cannot take the Arabic Placement Test to exempt Arabic 130.

AR 234 Advanced Arabic I**credit 3 hrs.**

This course is a continuation of Arabic 233 with emphasis on an intensive review of grammar and vocabulary in speaking, writing, and reading the language at an advanced level. A score of 80 or higher on the Arabic Placement Test allows a student to enroll in Arabic 234 and meet the General Education Foreign Language Requirement without having to take Arabic 130 and Arabic 233.

AR 235 Advanced Arabic II**credit 3 hrs.**

This course is a continuation of Arabic 234 Advanced Arabic I, with emphasis on reading, writing, and speaking the language at an advanced level. Prerequisite: AR 234.

AR 301 Arabic Conversation I**credit 3 hrs.**

This course will use the vocabulary from earlier courses to practice speaking about everyday routines and personal concerns and histories. Prerequisite: AR 235.

AR 302 Arabic Conversation II**credit 3 hrs.**

This course is a continuation of Arabic 301 Arabic Conversation I, with emphasis on reading, writing, and speaking the language at an advanced level. Prerequisite: AR 301.

AR 303 Arabic for Business and Government**credit 3 hrs.**

This course will focus on the practice of speaking to clients and others, in a relevant cultural context, about matters related to sales, banking, finance, and government related matters. Prerequisite: AR 302.

AR 304 Arabic Culture**credit 3 hrs.**

In this course, textual and online sources and films will be used to explore the diversity, history, geography, customs, and traditions of Arabic-speaking countries. Prerequisite: AR 302.

AR 305 Intensive Arabic Review**credit 3 hrs.**

This course is designed to encourage students to engage in a summer study abroad program offered through Benedict College. Student learning will actively take place in an Arabic speaking country where the student becomes immersed in the culture and lifestyle of the Arab world. Prerequisite: AR 302.

AR 306 Arabic by Design**credit 3 hrs.**

This course offers students an opportunity to co-design an area of focused study using the Arabic language to advance their skills and knowledge in areas specific to their major-course study as well as career interests. (Recommended for Criminal Justice and Political Science majors, but open to all Arabic minors.) Prerequisite: AR 302.

FR 130 Elementary French**credit 3 hrs.**

This course is a prerequisite for French 233 and is required for students with minimal or no experience in the language. It is designed to introduce students to basic grammar and vocabulary. Currently, a passing score of 60 on the French Placement Test allows students to exempt French 130.

FR 233 Intermediate French**credit 3 hrs.**

This course is a continuation of French 130. The completion of this course satisfies the General Education Foreign Language Requirement. Emphasis is on practice in speaking, writing, and reading the language in order to develop proficiency. The requirement for enrolling in French 233 is a passing grade in French 130 or a passing score on the French Placement Test. NOTE: A student who fails French 130 cannot take the French Placement Test to exempt French 130.

FR 234 Advanced French**credit 3 hrs.**

This course is a continuation of French 233 with emphasis on an intensive review of grammar and vocabulary and practice in speaking, writing, and reading the language at an advanced level. A score of 80 or higher on the French Placement Test allows a student to enroll in French 234 and meet the General Education Foreign Language Requirement without having to take French 130 and French 233.

SP 130 Elementary Spanish**credit 3 hrs.**

This course is a prerequisite for Spanish 233 and is required for students with minimal or no experience in the language. It is designed to introduce students to basic grammar and vocabulary. Currently, a passing score of 60 on the Spanish Placement Test allows students to exempt Spanish 130.

SP 233 Intermediate Spanish**credit 3 hrs.**

This course is a continuation of Spanish 130. The completion of this course satisfies the General Education Foreign Language Requirement. Emphasis is on practice in speaking, writing, and reading the language in order to develop proficiency. The requirement for enrolling in Spanish 233 is a passing grade in Spanish 130 or a passing score on the Spanish Placement Test. (NOTE: A student who fails Spanish 130 cannot take the Spanish Placement Test to exempt Spanish 130.)

SP 234 Advanced Spanish I**credit 3 hrs.**

This course is a continuation of Spanish 233 with emphasis on an intensive review of grammar and vocabulary in speaking, writing, and reading the language at an advanced level. A score of 80 or higher on the Spanish Placement Test allows a student to enroll in Spanish 234 and meet the General Education Foreign Language Requirement without having to take Spanish 130 and 233.

SP 235 Advanced Spanish II**credit 3 hrs.**

This course is a continuation of Spanish 234 (Advanced Spanish I) with emphasis on reading, writing and speaking the language at an advanced level. Prerequisite: SP 234.

SP 301 Spanish Conversation I**credit 3 hrs.**

This course will use vocabulary from earlier courses to practice speaking about everyday routines and personal concerns and histories. Prerequisite: SP 235.

SP 302 Spanish Conversation II credit 3 hrs.

This course is a continuation of Spanish Conversation I and will further build vocabulary with conversational practice. It will include discussions of textual materials and films. Prerequisite: SP 301.

SP 304 Spanish for Business**credit 3 hrs.**

This course will build on vocabulary from earlier Spanish courses to practice speaking to clients and others, in relevant cultural contexts, about matters related to sales, banking, and other business and financial concerns. Prerequisite: SP 302.

SP 305 Hispanic and Latino Culture**credit 3 hrs.**

In this course, textual and online sources and films will be used to explore the diversity, history, geography, customs, and traditions of Spanish-speaking countries. Prerequisite: SP 302.

SP 306 Spanish for the Judicial System**credit 3 hrs.**

This course will build on vocabulary from earlier Spanish courses to practice discussing matters related to the judicial system and cyber security. It will include familiarization with legal terms and non-standard "street" Spanish. Prerequisite: SP 302.

SP 307 Spanish for Health and Human Services**credit 3 hrs.**

This course will build on vocabulary from earlier Spanish courses to practice discussing matters related to health and human services. It will include familiarization with terminology used in those areas. Prerequisite: SP 302.

SP 308 Readings in Spanish**credit 3 hrs.**

This course will be a survey of literature and non-literary texts in Spanish. It will enhance vocabulary development and proficiency in the language. Prerequisite: SP 302.

MASS COMMUNICATION**Minor in Mass Communication**

The minor in Mass Communication is designed to provide a foundation in the history, ethics, business models and social roles of modern media, acquaint the students with news, organizational and social media applications as well as digital storytelling. It consists of the following five Mass Communication courses.

1. MASS 233 Writing for New Media (emphasis on creating content, rather than reporting);
2. MASS 330 Photography (emphasis on the principles of photography,
3. MASS 339 Data Driven Journalism (emphasis on telling impactful stories through quantitative data
4. MASS 131 Introduction to Mass Communication (modern media systems, their history, ethics, social roles and business models);
5. MASS 235 Introduction to Public Relations (emphasis on organizational communication principles and applications).

MASS COMMUNICATION COURSES**AS 111, 112, and 221 Seminars****credit 4 hrs.**

(Course descriptions are located in the Academic Department Cross-Disciplinary Courses section of the catalogue.)

MASS 130 Introduction and History of Mass Media**credit 3 hrs.**

This course introduces students to the history and the present state of mass communication as social and cultural activity and mass media as an industry. The structure, economics and cultural impact of various traditional and emergent mass media are explored. Students will gain a basic understanding of how the print, broadcast, electronic and photographic media function as well as their history and present challenges. In addition, students will be introduced to public relations and advertising as media industries. The course explores practical considerations in choosing and establishing a career in the media.

MASS 131 Fundamentals of Digital Literacy**credit 3 hrs.**

The course introduces the student to the fundamentals of digital information creation, formatting, storage, curation, conversion, distribution, processing and presentation. It applies these fundamentals to the areas of research, story development, media production, management communication and decision support in a group collaborative environment. Open to non-majors.

MASS 230 Photography for Web and Social Media**credit 3 hrs.**

Most people, businesses and brands today depend on web and social media that are visual in nature: Instagram, Snapchat, Twitter, Facebook and other. In this course students learn and practice the techniques necessary to successfully engage in social media photography using any digital camera. Open to non-majors.

MASS 233 Writing for Mass Media**credit 3 hrs.**

In this course, students become acquainted with news, reporting and writing. Students acquire hands on, practical experience writing articles using a variety of writing styles which emphasize the rudiments of basic research and news writing. Students will have opportunities to develop story ideas and sharpening their reporting techniques. They will also learn copy editing techniques and will be able to edit their own work as well as the work of their fellow students. Prerequisite: MASS 130.434

MASS 234 Reporting for New Media**(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

As traditional media move to the Internet, the way journalists work has begun to change. This class will look at how the Internet is changing journalism. Students will study how to merge their writing and interviewing skills, collecting reliable information quickly, and understanding legal considerations - such as the state of copyright and First Amendment Law and the ethics of journalists. Prerequisite: MASS 233.

MASS 235 Introduction to Public Relations**(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

Students will be introduced to the history of public relations and its structure and function in the contemporary society. They will study the meaning of public relations, publics, stakeholders, campaigns, research and feedback. An emphasis will be given to case studies of public relations campaigns. Students will explore public relations as an industry and a critical business area. Prerequisite: MASS 234.

MASS 330 Photography**(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

This course is a basic digital photography class. Students will be instructed in basic camera operation, exposure, management of digital files, photographic production and ethics. The class will be taught in digital format and the use of a DSLR camera is required. Prerequisite: MASS 233

MASS 331 Introduction to Video Production**(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

The course examines all aspects of video studio production, including planning, lighting, audio and video techniques. This course will stress research, script writing, interpretation and standard video recording and editing techniques. Prerequisites: MASS 335; MASS 330; MASS 235 333.

MASS 332 Media Practicum**credit 3 hrs.**

This course permits the student to work in the professional media community. The student is required

to work a minimum of three (3) hours per week for each credit hour given. Prerequisites: MASS 338; MASS 330, MASS 337.

MASS 335 Audio Recording Techniques**(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

Students will be introduced to the theory of sound and hearing, to explore how the use of sound impacts media and society. Students will gain an understanding of the historic and current practices used in audio production for film, TV and radio. Prerequisite: MASS 234.

MASS 336 Public Relations Campaign**credit 3 hrs.**

Workshops, guest speakers, and in-class exercises equip students to research, design, implement, and complete a public relations campaign for a community-based organization. Students develop an analysis of a PR case study and design and present a public relations proposal. Prerequisites: (MASS 235, MASS 330 ~~333~~).

MASS 337 Data Driven Journalism**credit 3 hrs.**

This course introduces students to the developments that are shaping the mass communication and organizational communication in this century: Big Data, data visualization and transmedia story telling. Understand and be able to discuss the basics concepts of data journalism, Big Data, data analysis, data presentation and transmedia story telling. The students are introduced to the effects of rich and affordable analytics on organizational, market and business decisions as well as media business models, production and consumption. Open to non-majors.

MASS 338 Layout for Publications**(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

This course teaches the basics of publication and layout. The student will become familiar with all aspects of publication including design and layout. Formats include brochures, pamphlets, newsletters, newspapers, magazines, and other printed materials. (Prerequisite: MASS 334).

MASS 431 Digital Imaging Technology**(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

This is an advanced photography course. The format, digital imaging, is taught using digital cameras, both still and video, digitizing equipment, and photographic editing software. Permission of Instructor required. Prerequisite: MASS 330.

MASS 434P Production Print Media I**(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

This is a production course to train aspiring Mass Communicators in the publication of print media. It will allow hands-on participation in the production of the student magazine and newspaper. The course covers photography techniques, thematic sequence, layout, writing and planning. Prerequisites: MASS 233, MASS 330, and MASS 338.

MASS 434M Production Broadcast I**(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

The course will focus on the fundamentals of script writing, storyboarding, shooting, and nonlinear editing. Technical and creative approaches will be covered. The class will consist of lectures, lessons, in-class exercises, and a series of projects. Prerequisites: MASS 331; MASS 334.

MASS 435P Production Print Media II**(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

This is a production course to train aspiring Mass Communicators in the publication of print media. It will allow hands-on participation in the production of the student magazine and newspaper. The course covers photography techniques, thematic sequence, layout, writing and planning. Prerequisites: MASS 233, MASS 330, and MASS 338.

MASS 435M Production Broadcast II**(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

All aspects of digital video production, from pre-production, production, and post-production will be studied. The course will focus on the fundamentals of script writing, storyboarding, shooting, and nonlinear editing. Technical and creative approaches will be covered. The class will consist of lectures, lessons, in-class exercises, and a series of projects. MASS 331; MASS 334

MASS 436 Research Methods in Mass Communication**credit 3 hrs.**

In this course students acquire a basic understanding of the research process from conception to

conclusion, according to established industry practices. Students will be introduced to the issues of planning, managing and presenting research. The course prepares students for their work on the Senior Thesis/Project. Prerequisite: MASS 337.

MASS 437 Media Law and Ethics

credit 3 hrs.

This course examines fundamental issues of the freedom of speech, libel, privacy, fairness, professional ethics and governmental control of the mass media. An additional focus is given on professional and ethical standards that go beyond legal requirements. The course is based on case studies and prepares students for the ethical and legal considerations pertinent to our profession. Prerequisite: MASS 334.

MASS 439 Senior Thesis / Project

credit 3 hrs.

This course has a practical focus and is built around individual student research. It is designed to help students formulate and set realistic research goals and execute their individual research projects culminating in a Senior Thesis or Senior Project. Students will be guided through research question formulation, literature review, method development, data collection, analysis and presentation of the results. Prerequisite: MASS 436.

MASS 440 Internship

credit 3 hrs.

Internship is the final course which offers practical professional experiences. The course is under the supervision of a mass communication instructor from the College. Prerequisite: MASS 332.

MASS COMMUNICATION ELECTIVES

MASS 210 Sophomore Summer Field Experience 1

credit 1 hr.

This course creates an opportunity for students to shadow a media professional on — or off-campus and learn valuable industry skills, protocols and behaviors in a work setting. Open to non-majors. Requires a minimum of 30 hours to pass. Prerequisite: MASS 131.

MASS 211 Sophomore Summer Field Experience 2

credit 1 hr.

A continuation of Sophomore Summer Experience 1. This course creates an opportunity for students to shadow a media professional on or off-campus and learn valuable industry skills, protocols and behaviors in a work setting. Open to non-majors. Requires a minimum of 30 hours to pass. Prerequisite: MASS 131.

MASS 231 Survey of Communication Theories

credit 3 hrs.

Students are introduced to a broad spectrum of communication theories, including media, group interaction, organizational communication, as well as cultural and cultural-critical approaches, systems of rhetorical criticism, textual analysis and argumentation/persuasion. The course emphasizes the relationship between society, media, culture and politics as reflected in the body of theoretical work. Prerequisite: MASS 130.

MASS 310 Junior Summer Field Experience 1

credit 1 hr.

A continuation of Junior Summer Experience 1. This course creates an opportunity for students to shadow a media professional on or off-campus and learn valuable industry skills, protocols and behaviors in a work setting. Open to non-majors. Requires a minimum of 30 hours to pass. Prerequisite: MASS 235

MASS 311 Junior Summer Field Experience 2

credit 1 hr.

This course creates an opportunity for students to shadow a media professional on or off-campus and learn valuable industry skills, protocols and behaviors in a work setting. Open to non-majors. Requires a minimum of 30 hours to pass. Prerequisite: MASS 235.

MASS 339 Photojournalism

credit 3 hrs.

Combines the skills learned in basic photography and media writing classes. The course emphasizes the intermediate level elements of mass media photography techniques, including print and digital journalism, advertising, public relations, and television. The emphasis is on the photojournalistic value of truth-telling rather than creating a fantasy or illusion. ~~Student learns how to employ~~ The student learns how to apply creative storytelling techniques to photography. Students will compose, shoot, and edit using digital still cameras and associated computer software. Prerequisites: MASS 330, MASS 234.

MASS 340 Data Visualization

credit 3 hrs.

This course prepares students to conceive, plan, execute and present a data journalism story

based on quantitative data and using industry standard platforms for data analysis and presentation. Prerequisite: MASS 339.

MASS 430 Critical Thinking and Measurement in Mass Comm **credit 3 hrs.**

The course covers applications of positivist, interpretivist and cultural-critical philosophies, concepts and theories of mass communication to the design of media and communication measurement as well as evaluation. The course gives students a hands-on sense of how to approach media systems, organizations, audiences, processes effects and biases in an empirical, systematic and transparent way required for being a valuable employee and a productive citizen.

Prerequisite: MASS 231.

MASS 432 Advanced Public Relations **credit 3 hrs.**

Practice in media relations; the development of professional writing skills with emphasis on social media campaigns, external and internal communications: media kits, press releases, public service announcements, publication design, employee communications, speech writing, audiovisual presentations, and news conferences. Prerequisite: MASS 235 ~~333~~.

PROGRAM OF STUDY IN MASS COMMUNICATION

FRESHMAN YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
ENG 131	Analysis & Argumentation	3	ENG 132	Information, Literacy & Research	3
MATH 132	General College Math I	3	MATH 134	General College Math II	3
	Science Requirement	4	EC 130	Introduction to Economics	3
HIST 130	Intro to Afr. American History	3	THE 120	Voice and Diction	2
MASS 130	Intro to Mass Media/Hist	3	MASS 131	Fund. of Digital Literacy	3
HASS 111	The College Experience I	1		Elective	3
			HASS 112	The College Experience II	1
Total		17	Total		18

SOPHOMORE YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
ENG 237	Oral Communication	3	ENG 231	Literature as Life	3
FR/SP/AR 130	Foreign Language/Elective	3	FR/SP/AR 233	Intermediate Foreign Language	3
MASS 230	Photo for Web & Social Media	3	HE 230	Health Education	3
MASS 233	Writing for Mass Media	3	*MASS 234	Reporting for New Media	3
	Elective	3	MASS 235	Intro to Public Relations	3
HASS 221	Prof. Pathways Development	2			
Total		17	Total		15

JUNIOR YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
*MASS 330	Photography	3	*MASS 331	Intro to Video	3
MASS 334	Feature/Editorial Writing	3	*MASS 332	Media Practicum	3
*MASS 335	Audio Recording Techniques	3	MASS 336	Public Relations Campaign	3
MASS 337	Data Driven Journalism	3	MASS 338	Layout for Publications	3
	Elective	3		Elective	3
Total		15	Total		15

SENIOR YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
*MASS 431	Digital Imaging Technology	3	*MASS 440	Internship	3
MASS 434P/434M	Production Print Media I or Production Broadcast I	3	MASS 435P/434M	Production Print Media II or Production Broadcast II	3
*MASS 436	Research Methods	3	*MASS 439	Senior Thesis/Project	3
*MASS 437	Media Law and Ethics	3		Elective	3
	Elective	3		Elective	4
Total		15	Total		16

Total SCH 128
SCH in Major* 30

*Major courses require a "C" or better.

PROGRAM OF STUDY IN MASS COMMUNICATION

FRESHMAN YEAR					
First Semester		SCH	Second Semester	SCH	
ENG 131	Analysis & Argumentation	3	ENG 132	Information, Literacy & Research	3
MATH 132	General College Math I	3	MATH 134	General College Math II	3
	Science Requirement	4	EC 130	Introduction to Economics	3
HIST 130	Intro to Afr. American History	3	THE 120	Voice and Diction	2
MASS 131	Intro to Mass Media/Hist	3	MASS 130	Fund. of Digital Literacy	3
HASS 111	The College Experience I	1		Elective	3
			HASS 112	The College Experience II	1
Total		17	Total		18
SOPHOMORE YEAR					
First Semester		SCH	Second Semester	SCH	
ENG 237	Oral Communication	3	ENG 100	Literature as Life	3
FR/SP/AR 130	Foreign Language/Elective	3	FR/SP/AR 233	Intermediate Foreign Language	3
MASS 230	Photo for Web and Soc Media	3	HE 230	Health Education	3
MASS 233	Writing for Mass Media	3	*MASS 234	Reporting for New Media	3
	Elective	3	MASS 235	Intro to Public Relations	3
HASS 221	Prof. Pathways Development	2			
Total		17	Total		15
JUNIOR YEAR					
First Semester		SCH	Second Semester	SCH	
*MASS 330	Photography	3	*MASS 331	Intro to Video	3
MASS 334	Feature/Editorial Writing	3	*MASS 332	Media Practicum	3
*MASS 335	Audio Recording Techniques	3	MASS 336	Public Relations Campaign	3
MASS 337	Data Driven Journalism	3	MASS 338	Layout for Publications	3
	Elective	3		Elective	3
Total		15	Total		15
SENIOR YEAR					
First Semester		SCH	Second Semester	SCH	
*MASS 431	Digital Imaging Technology	3	*MASS 440	Internship	3
MASS 434P/434M	Production Print Media I or Production Broadcast I	3	MASS 435P/434M	Production Print Media II or Production Broadcast II	3
*MASS 436	Research Methods	3	*MASS 439	Senior Thesis/Project	3
*MASS 437	Media Law and Ethics	3		Elective	3
	Elective	3		Elective	4
Total		15	Total		16
Total SCH		128			
SCH in Major*		30			
*Major courses require a "C" or better.					

STUDIO ART

Minor in Studio Art

Students may choose to obtain a minor in art that helps to advance and integrate art/design knowledge and skills in a variety of areas. The art minor is especially appropriate for students with substantial interest in art, but who intend to pursue careers in other fields. Students may obtain a minor in art by satisfactorily completing the following 15 hours in art courses.

ART 131 – Foundations: 2D Emphasis	(3 credits)
ART 132 – Foundations: 3D Emphasis	(3 credits)
ART 133 – Foundations: Digital Emphasis	(3 credits)
ART 130 – Foundations: Art Appreciation	(3 credits)
ART 138 – Art History Survey I	(3 credits) or
<u>ART 139 – Art History Survey II</u>	<u>(3 credits)</u>

Total SCH in Minor – 15 credits

In studio courses, one hour of credit represents three hours of studio time each week of the semester. Studio classes led by an instructor meet for a minimum of 2 hours per week for each credit granted.

Studio Art Fees are included in the tuition bill. These fees are assessed per course, per semester, and are used by the program to provide classroom materials, equipment and software licenses as well as to support academic instruction.

AS 111, 112, and 221 Seminars

credit 4 hrs.

(Course descriptions are located in the Academic Department Cross-Disciplinary Courses section of the catalogue.)

ART 130 Foundations: Art Appreciation

credit 3 hrs.

This course is an overview of the visual arts and its relationship to the visual culture that surrounds us. Students will be introduced to the visual elements, design principles, material processes, and the interconnections between art-making and cultural context. Students will develop abilities to carefully observe, analyze and interpret works of art as transmitters of cultural, humanistic and aesthetic values of global civilization from past to present.

ART 131 Foundations: 2D Emphasis

credit 3 hrs.

This course offers an introduction to the nonverbal language of art and design. The vocabulary, tools, techniques and methods of visual design on the flat plane are explored through a series of lectures, experimental exercises and applied problems.

ART 132 Foundations: 3D Emphasis

credit 3 hrs.

This course is a continuation of ART 131. Volume, space organization, structure, texture, mass and tension are explored through a series of short projects using simple construction materials and techniques. Equipment use and safety instruction are included.

ART 133 Foundations: Digital Experience

credit 3 hrs.

This course offers a survey of computer design applications in a technology workshop format. Students will learn computer basics, file management, file formats, hardware and software use, raster graphics and digital imaging, vector graphics and illustration, along with page layout. Design skills, design process, personal expression, and content development will be emphasized along with the learning of tools and techniques.

ART 134 Foundations: Drawing Experience

credit 3 hrs.

This course offers a comprehensive introduction to the techniques, tools, and vocabulary associated with drawing as a medium. Students develop fundamental drawing skills, including the ability to perceive and express visual relationships, organize a two-dimensional composition, and depict and manipulate basic elements of drawing, working from direct observation of still life, interior space, and landscape. Prerequisite: ART 131 or consent of the instructor.

ART 138 Art History Survey I

credit 3 hrs.

This course is part one of a two-part lecture course paired with ART 139. It is designed to be an historical survey of significant pan-cultural world art development. This portion begins with

Paleolithic art and covers developments up to the beginning of the Renaissance in Europe. A research paper is required.

ART 139 Art History Survey II**credit 3 hrs.**

This course is part two of a two-part lecture course paired with ART 138. It is designed to be an historical survey of significant pan-cultural world art development. This portion begins with the Renaissance in Europe and covers developments up to the present. A research paper is required.

ART 230 Sculptural Media/Processes**credit 3 hrs.**

This course provides an introduction to the materials, processes, and issues pertaining to the making of three-dimensional objects. The use of varied materials (clay, plaster, found objects, cloth, etc.) is explored along with the formal and conceptual principals that form the basis of contemporary sculpture. Prerequisite: ART 132 or consent of the instructor.

ART 231 Observational Drawing**credit 3 hrs.**

This course focuses on developing an understanding of the structure of object and figure through freehand drawing. Offers students an opportunity to explore a wide range of materials, including wash, charcoal, and pencil. Prerequisite: ART 134 or consent of the instructor.

ART 232 Conceptual Drawing**credit 3 hrs.**

This course seeks to expand the student's knowledge and skills through a mark-making process. Offers students an opportunity to begin to understand the relationship between form and meaning while relating the drawing process to broader concepts of communication. Prerequisite: ART 231 or consent of the instructor.

ART 233 Digital Design**credit 3 hrs.**

This course offers intermediate study of digital design solutions that reinforce the elements and principles of design. Prerequisite: ART 133 or consent of the instructor.

ART 236 Visual Communication**(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

This course focuses on the design process to solve graphic design problems in a variety of formats. Prerequisites: ART 131, ART 132, and ART 133, or consent of instructor.

ART 331 Illustration Techniques and Media**(Designated SERVICE-LEARNING Course)****credit 3 hrs.**

This course provides an introduction to the materials and techniques used in the field of illustration, with emphasis on the skills learned in ART 231 and ART 232. The development of resource material is also covered. Prerequisite: ART 232.

ART 335 Painting I**credit 3 hrs.**

This course provides an introduction to materials and techniques used in painting with emphasis on seeing and understanding color, preparation of surfaces and the chemistry of painting. Prerequisite: ART 232.

ART 336 Painting II**credit 3 hrs.**

This course provides a further exploration of the concepts and technical skills developed in ART 335 with emphasis on individual creative expression. Prerequisite: Art 335.

ART 338 African American Art History**credit 3 hrs.**

This course provides an exploration into the history of African-American visual art and artists from colonial times to the present.

ART 417 Capstone Project I**credit 1 hr.**

This course is part one of the Senior Project requirement, in which students will develop a proposal defining what their capstone exhibition will be, and complete half of the work for their show.

ART 418 Capstone Project II**credit 1 hr.**

This course will complete the Senior Project requirement, in which students will create a cohesive body of work based on the proposal developed in ART 417. Students will submit a documentation of the Senior Project, following specifications provided. Students will display their show and engage in a senior project review conducted by the Art faculty.

ART 431 Figure Drawing and Anatomy**credit 3 hrs.**

This course provides an introduction to drawing the human figure and the study of human

anatomy with emphasis on development of strong drawing skills including gesture, value, line, and proportion. Prerequisite: ART 336.

ART 432 Figure Painting**credit 3 hrs.**

This course provides a study of the human form using the advanced painting techniques learned in ART 336. Prerequisite: ART 431.

ART 433 Digital Illustration**(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

In this course, instruction covers solving illustration problems on the computer, and turning out professional digital work. Prerequisite: ART 331.

ART 434 Business of Art**credit 3 hr.**

This course focuses on the development of a professional portfolio. This course also covers preparation of an artist's résumé, professional standards and practices, basic business procedures, legal issues, and self-promotion. Prerequisite: graduating seniors.

ART 439 Aesthetics and Criticism in the Visual Arts**credit 3 hrs.**

This writing-intensive course is a study of aesthetics in the visual arts. Through a series of lectures, discussions, research papers, and critical reviews, students will learn about various historical aspects and schools of thought relating to artistic merit, art criticism, and contemporary aesthetic theory. Prerequisites: ART 138, ART139.

STUDIO ART ELECTIVES**ART 235 Arts and Crafts****credit 3 hrs.**

This hands-on course will include studio projects in a wide range of 2D and 3D media. Open to the non-art major.

ART 324 History of Design**credit 3 hrs.**

This course allows students to investigate different aspects of design and visuality through a chronological overview of the process of design as related to production, consumption and utility within cultures. The design process is intricately linked to perceptions of visuality, how things appear to us, and how we assess the relationship between design and utility. Concepts of gender, spatial control, ethics, race, status and class will be related to the history of design and how that is impacted through theoretical, historical, and social processes.

ART 327 Visual Narrative**credit 2 hrs.**

Through historical perspectives and assignments, students explore the visual narrative art genre. Issues of content, plot, character development, sequential narrative, and design are addressed. Techniques for creating compelling storyboards for a variety of outlets are also covered.

ART 329 Mural Art**credit 2 hrs.**

This course offers an introduction to the techniques of mural painting, with applications of ancient and contemporary mural themes. The course focuses on technical approaches in a collectively designed project for the college or greater community. Open to the non-art major.

ART 332 Typography**credit 3 hrs.**

In this course, students gain a familiarity with typographic terms and technologies, an understanding of classical and contemporary typographic forms, an ability to construct typographic compositions, and an appreciation of typography as an expressive medium that conveys aesthetic, emotional and intellectual meaning. Prerequisite: ART 236

ART 333 Digital Manipulation**credit 3 hrs.**

In this introduction to raster-based digital image manipulation, students will explore digital image manipulation as well as become acquainted with the concepts, hardware, and software, related to: digital image acquisition, image editing and manipulation, color management basics, retouching and scanning/output. Prerequisite: ART 233 or consent of the instructor.

ART 334 Ceramics I**credit 3 hrs.**

This studio course is designed to introduce students to the fundamental tools, methods, and techniques used in the production of hand-built ceramic objects. These methods will include pinch, coil, slab, simple molding, and basic firing and glazing techniques. Instruction will be given through lectures, demonstrations, and hands-on studio projects. Prerequisites: ART131, ART 132, or consent of instructor.

ART 430 Printmaking I**credit 3 hrs.**

Introduction to printmaking. Study of traditional and contemporary techniques, including, but not limited to monotype and relief. Problems in pictorial composition will be emphasized along with understanding of technique. Appreciation and sensitivity to the art of the print will be cultivated. Prerequisite: ART 232, or consent of instructor.

ART 435 Special Topics: Art**credit 3 hrs.**

This course serves as an upper level art elective, offering advance study in art for senior art majors only.

ART 436 Visual Communication II**credit 3 hrs.**

This course is a continuation of ART 236, offering advanced study of visual communication principles and their applications to more complex and comprehensive design solutions. Prerequisite: ART 236.

ART 437 Illustration II**credit 3 hrs.**

This course is a continuation of ART 331. It offers an advanced examination of illustration concepts and their applications; students broaden their understanding of illustration as visual language in projects that involve research and analysis, focusing on image making, aesthetics, message, audience, and intent with refined use of media and technique. Prerequisite: ART 331 or consent of the instructor.

ART 438 Special Topics: Art History**credit 3 hrs.**

The course serves as an upper level art elective, offering advance study in art history for senior art majors only.

PROGRAM OF STUDY IN STUDIO ART

MINOR: Applied Computing: Mass Communications Track

FRESHMAN YEAR

<i>First Semester</i>			<i>SCH</i>	<i>Second Semester</i>			<i>SCH</i>
ENG 131	Analysis & Argumentation	3		ENG 132	Information, Literacy & Research	3	
MATH 132	General College Math I	3		MATH 134	General College Math II	3	
*ART 131	Foundations: 2D Emphasis	3		*ART 132	Foundations: 3D Emphasis	3	
*ART 135	Foundations: Digital Experience	3		*ART 134	Foundations: Drawing Experience	3	
*ART 130	Foundations: Art Appreciation	3		*ART 138	Art History Survey I	3	
HASS 111	The College Experience I	1		HASS 112	The College Experience II	1	
Total			16	Total			16

SOPHOMORE YEAR

<i>First Semester</i>			<i>SCH</i>	<i>Second Semester</i>			<i>SCH</i>
*ART 139	Art History Survey II	3		MUS/THE 230	Music or Theatre Apprec	3	
CSC 131	Intro to Computers	3		FR/SP/AR 233	Intermediate Foreign Language	3	
BIO 130/110L or PHYS 141/141L	General Biology/Lab or Gen. Physical Sci/Lab	4		CSC 239	Intro to Multi Media Computing	3	
*ART 231	Observational Drawing	3		*ART 230	Sculptural Media/Processes	3	
*ART 233	Digital Design	3		*ART 232	Conceptual Drawing	3	
HASS 221	Prof. Pathways Development	2		*ART 236	Visual Communication I	3	
Total			18	Total			18

JUNIOR YEAR

<i>First Semester</i>			<i>SCH</i>	<i>Second Semester</i>			<i>SCH</i>
HIST 130	African American History	3		*ART 338	Afr. American Art History	3	
*ART 335	Painting I	3		*ART 336	Painting II	3	
*ART 331	Illustration I	3		*ART 330	Digital Illustration	3	
PHIL 233	Ethics & Moral Reasoning	3		MASS 330	Photography	3	
MASS 233	Writing for New Media	3		ENG 237	Oral Communication	3	
Total			15	Total			15

SENIOR YEAR

<i>First Semester</i>			<i>SCH</i>	<i>Second Semester</i>			<i>SCH</i>
*ART 431	Figure Drawing & Anatomy	3		*ART 432	Figure Painting	3	
MASS 339	Data Driven Journalism	3		*ART 434	Business of Art	3	
CSC 236/335/434	Bus Prog or File Org/Processing or Database Mgt	3			Health and Wellness	2	
*ART 439	Aesthetics & Criticism	3		*ART 440	Internship	3	
*ART 417	Capstone Project I	1		*ART 418	Capstone Project II	1	
	Elective	3		*ART	Art Elective	2	
Total			16	Total			14

Total SCH 128

SCH in Major* 70

*All ART courses require exit grade of "C".

PROGRAM OF STUDY IN STUDIO ART

MINOR: Education

FRESHMAN YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
ENG 131	Analysis & Argumentation	3	ENG 132	Information, Literacy & Research	3
MATH 132	General College Math I	3	MATH 134	General College Math II	3
*ART 131	Foundations: 2D Emphasis	3	*ART 132	Foundations: 3D Emphasis	3
*ART 135	Foundations: Digital Experience	3	*ART 134	Foundations: Drawing Experience	3
*ART 130	Foundations: Art Appreciation	3	*ART 138	Art History Survey I	3
HASS 111	The College Experience I	1	HASS 112	The College Experience II	1
Total		16	Total		16

SOPHOMORE YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
*ART 139	Art History Survey II	3	MUS/THE 230	Music or Theatre Apprec	3
ED 130	Hist/Phil Foundations of Ed.	3	EDU 230	Human Growth & Dev.	3
BIO 130/110L or PHYS 141/141L	General Biology/Lab or Gen. Physical Sci/Lab	4	*ART 230	Sculptural Media/Processes	3
*ART 231	Observational Drawing	3	*ART 232	Conceptual Drawing	3
*ART 233	Digital Design	3	*ART 236	Visual Communication I	3
HASS 221	Prof. Pathways Development	2			
Total		18	Total		15

JUNIOR YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
HIST 130	African American History	3	*ART 338	Afr. American Art History	3
*ART 335	Painting I	3	*ART 336	Painting II	3
*ART 331	Illustration I	3	*ART 330	Digital Illustration	3
PHIL 233	Ethics & Moral Reasoning	3	ED 230	Cultural Relevancy in the Classroom	3
ENG 237	Oral Communication	3	FR/SP/AR 233	Intermediate Foreign Language	3
			*ART	Art Elective	2
Total		15	Total		17

SENIOR YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
*ART 431	Figure Drawing & Anatomy	3	*ART 432	Figure Painting	3
	Health and Wellness	2	*ART 434	Business of Art	3
EDU 332	Educational Psychology	3	EDU 337	Diversity Social Justice & 21st Cen.	3
*ART 439	Aesthetics & Criticism	3	*ART 440	Internship	3
*ART 417	Capstone Project I	1	*ART 418	Capstone Project II	1
*ART	Art Elective	3		Elective	3
Total		15	Total		16

Total SCH 128

SCH in Major* 73

*All ART courses require exit grade of "C".

PROGRAM OF STUDY IN STUDIO ART

MINOR: Marketing

FRESHMAN YEAR

<i>First Semester</i>			<i>SCH</i>	<i>Second Semester</i>			<i>SCH</i>
ENG 131	Analysis & Argumentation	3		ENG 132	Information, Literacy & Research	3	
MATH 132	General College Math I	3		MATH 134	General College Math II	3	
*ART 131	Foundations: 2D Emphasis	3		*ART 132	Foundations: 3D Emphasis	3	
*ART 135	Foundations: Digital Experience	3		*ART 134	Foundations: Drawing Experience	3	
*ART 130	Foundations: Art Appreciation	3		*ART 138	Art History Survey I	3	
HASS 111	The College Experience I	1			The College Experience II	1	
Total			16	Total			16

SOPHOMORE YEAR

<i>First Semester</i>			<i>SCH</i>	<i>Second Semester</i>			<i>SCH</i>
*ART 139	Art History Survey II	3		MUS/THE 230	Music or Theatre Apprec	3	
BA 130	Introduction to Business	3		MKT 330	Principles of Marketing	3	
BIO 130/110L or PHYS 141/141L	General Biology/Lab or Gen. Physical Sci/Lab	4		*ART 230	Sculptural Media/Processes	3	
*ART 231	Observational Drawing	3		*ART 232	Conceptual Drawing	3	
*ART 233	Digital Design	3		*ART 236	Visual Communication I	3	
HASS 221	Prof. Pathways Development	2					
Total			18	Total			15

JUNIOR YEAR

<i>First Semester</i>			<i>SCH</i>	<i>Second Semester</i>			<i>SCH</i>
MKT 337	Consumer Behavior	3		*ART 338	Afr. American Art History	3	
*ART 335	Painting I	3		*ART 336	Painting II	3	
*ART 331	Illustration I	3		*ART 330	Digital Illustration	3	
PHIL 233	Ethics & Moral Reasoning	3		HIST 130	African American History	3	
ENG 237	Oral Communication	3		FR/SP/AR 233	Intermediate Foreign Language	3	
				*ART	Art Elective	2	
Total			15	Total			17

SENIOR YEAR

<i>First Semester</i>			<i>SCH</i>	<i>Second Semester</i>			<i>SCH</i>
*ART 431	Figure Drawing & Anatomy	3		*ART 432	Figure Painting	3	
	Health and Wellness	2		*ART 434	Business of Art	3	
MKT 437	Marketing Management	3		MKT 432	Marketing Research	3	
*ART 439	Aesthetics & Criticism	3		*ART 440	Internship	3	
*ART 417	Capstone Project I	1		*ART 418	Capstone Project II	1	
*ART	Art Elective	3			Elective	3	
Total			15	Total			16

Total SCH 128

SCH in Major* 73

*All ART courses require exit grade of "C".

PROGRAM OF STUDY IN STUDIO ART

MINOR: Psychology

FRESHMAN YEAR

<i>First Semester</i>			<i>SCH</i>	<i>Second Semester</i>			<i>SCH</i>
ENG 131	Analysis & Argumentation	3		ENG 132	Information, Literacy & Research	3	
MATH 132	General College Math I	3		MATH 134	General College Math II	3	
*ART 131	Foundations: 2D Emphasis	3		*ART 132	Foundations: 3D Emphasis	3	
*ART 135	Foundations: Digital Experience	3		*ART 134	Foundations: Drawing Experience	3	
*ART 130	Foundations: Art Appreciation	3		*ART 138	Art History Survey I	3	
HASS 111	The College Experience I	1		HASS 112	The College Experience II	1	
Total			16	Total			16

SOPHOMORE YEAR

<i>First Semester</i>			<i>SCH</i>	<i>Second Semester</i>			<i>SCH</i>
*ART 238	Art History Survey II	3		MUS/THE 230	Music or Theatre Apprec	3	
PSY 230	Introduction to Psychology	3		PSY 330	Human Growth & Dev.	3	
BIO 130/110L or PHYS 141/141L	General Biology/Lab or Gen. Physical Sci/Lab	4		*ART 230	Sculptural Media/Processes	3	
*ART 231	Observational Drawing	3		*ART 232	Conceptual Drawing	3	
HASS 221	Prof. Pathways Development	2		*ART 233	Digital Design	3	
				*ART 236	Visual Communication I	3	
Total			15	Total			18

JUNIOR YEAR

<i>First Semester</i>			<i>SCH</i>	<i>Second Semester</i>			<i>SCH</i>
PSY 331	Social Psychology	3		*ART 338	African Amer. Art History	3	
*ART 335	Painting I	3		*ART 336	Painting II	3	
*ART 331	Illustration I	3		*ART 330	Digital Illustration	3	
PHIL 233	Ethics & Moral Reasoning	3		HIST 130	African American History	3	
ENG 237	Oral Communication	3		FR/SP/AR 233	Intermediate Foreign Language	3	
*ART	Art Elective	2					
Total			17	Total			15

SENIOR YEAR

<i>First Semester</i>			<i>SCH</i>	<i>Second Semester</i>			<i>SCH</i>
*ART 431	Figure Drawing & Anatomy	3		*ART 432	Figure Painting	3	
	Health and Wellness	2		*ART 434	Business of Art	3	
PSY 431	Abnormal Psychology	3		PSY 432	Cognitive Psychology	3	
*ART 439	Aesthetics & Criticism	3		*ART 440	Internship	3	
*ART 417	Capstone Project I	1		*ART 418	Capstone Project II	1	
*ART	Art Elective	3			Elective	3	
Total			15	Total			16

Total SCH 128

SCH in Major* 73

*All ART courses require exit grade of "C".

MUSIC

MUSIC COURSES

AS 111, 112, and 221 Seminars

credit 4 hrs.

(Course descriptions are located in the Academic Department Cross-Disciplinary Courses section of the catalogue.)

ALL Major Courses must be taken sequentially.

MUS 000 Music Seminar

credit 0 hr.

This course offers an opportunity for students in the music area to perform and critique other performers in their area. Students share research and performance decorum, receive advice from external professionals, and are exposed to a wide array of practical topics in the field. Students must earn a passing grade of "C" and must take this course for a total of eight (8) semesters.

MUS 019 Applied Lesson

credit 1 hr.

This Applied Lesson consists of private instruction in the student's major instrument. Weekly assignments consist of standard solo literature with emphasis on technique, interpretation, and style. Music students are required to enroll in 7 sections of applied lessons beginning first semester freshman year and continuing through the first semester of the senior year. Instruments are designated by suffix: B-brass, D-percussion, P-piano, V-voice, W-woodwind. Prerequisite: Music Majors Only.

MUS 010C Concert Choir

(DESIGNATED SERVICE-LEARNING COURSE)

credit 1 hr.

This course is devoted to the study and performance of the highest caliber of choral literature, and includes such diversity as classical, musical theatre, spiritual, and contemporary gospel styles. It is required for all music majors with a concentration in voice or piano and open to all other students by audition or consent of the director.

MUS 010D Percussion Ensemble

(DESIGNATED SERVICE-LEARNING COURSE)

credit 1 hr.

This Benedict College Percussion Ensemble is designed to provide cultural enrichment and sound preparation for the modern-day percussion educator/performer. Students are given an opportunity to learn proper playing and performance techniques on a variety of traditional and non-traditional percussive instruments. Open to all students by audition or consent of the director.

MUS 010I Instrumental Ensemble

(DESIGNATED SERVICE-LEARNING COURSE)

credit 1 hr.

This course is devoted to the study and performance of the highest caliber of choral literature, and includes such diversity as classical, musical theatre, spiritual, and contemporary gospel styles. It is required for all music majors with a concentration in voice or piano and open to all other students by audition or consent of the director.

MUS 010M Marching Band

credit 1 hr.

This purpose of this ensemble is to provide cultural enrichment and music as an avenue of entertainment, public service, athletic, and academic support. Frequent performances are presented on and off-campus. Participation is open to all students with an instrumental background. Auditions are used as a means of placement

MUS 115 Elementary Piano I

credit 1 hr.

This course is designed to meet the piano proficiency requirement for all Music majors and provides an introduction to the piano keyboard in a classroom setting. Emphasis is placed on melodic and rhythmic note orientation, ear training, the playing of simple folk songs and beginning piano literature of various composers and styles. Prerequisite: Music Majors Only; MUS 120.

MUS 116 Elementary Piano II

credit 1 hr.

This course is a continuation of MUS 115 Elementary Piano I and is designed to meet the piano proficiency requirement for all Music majors. Prerequisite: MUS 115.

MUS 117 Ear Training and Sight Singing I**credit 1 hr.**

This course is the first of a four-semester sequence designed to develop aural and notation skills. Course content includes aural recall, melodic and rhythmic dictation, listening experiences, and score reading. Prerequisite: Music Majors Only; MUS 120.

MUS 118 Ear Training and Sight Singing II**credit 1 hr.**

This course is a continuation of MUS 117 and includes progressively advanced aural recall, melodic and rhythmic dictation, listening experiences, and score reading. Prerequisite: Music Majors Only; MUS 117.

MUS 120 Fundamentals of Music**credit 2 hrs.**

This course is designed to be an introduction of music reading and writing. Basic music concepts such as pitch, rhythm notation, ear training, score reading, chord construction, and scales will prepare the student for music theory courses. In addition, this course will introduce the student to music writing that will allow the student to write simple melodic and rhythmic dictation, preparing the student to the Ear Training and Sight Singing courses.

MUS 130 Foundations: Music Appreciation**credit 0 hr.**

A study of the basics of music, including audio recall, rhythm, intervals, chord construction, and major and minor scales. *Students who do not pass the Proficiency Diagnostic Exam will be required to take MUS 130 "Fundamentals of Music" and are not eligible to enroll in MUS 131 or MUS 117. MUS 130 does not count towards required graduation credits.*

MUS 131 Music Theory I**credit 3 hrs.**

This course is designed to acquaint students with the rudiments of music, including: major and minor scales, note values, pitch intensity, color, and rhythm. Emphasis is placed on visual and aural recognition of melodic and rhythmic patterns, intervals and chords. Students are also taught to read and write music and are introduced to basic ear training and sight singing, dictation, and note/square reading exercises. The elements of music are discussed, including pitch, duration, intensity, tempo, timbre, and rhythm. Drills in intervals, chords, and rhythmic patterns are included. Prerequisite: Music Majors Only; MUS 120.

MUS 132 Music Theory II**credit 3 hrs.**

This course is the continuation of MUS131 with focus on melodic, rhythmic, intervallic and chordal dictation. Terminology and technical concepts are emphasized, leading to musical analysis. Elements of music are discussed, including pitch, duration, intensity, tempo, timbre, and rhythm. Drills in intervals, chords, and rhythmic patterns are included. Prerequisite: Music Majors Only; MUS131.

MUS 211E Electronic/Computer Music**credit 1 hr.**

This course is designed as a computer competency for Music Majors through the introduction to computer music notation software and midi interface technology. Prerequisite: Music Majors Only.

MUS 215 Intermediate Piano I**credit 1 hr.**

This semester course is classroom setting. Emphasis is placed on technique and interpretation of folk and hymn tunes and piano literature. Prerequisite: MUS 116 or the consent of the instructor.

MUS 216 Intermediate Piano II**credit 1 hr.**

This semester course is a continuing sequence of piano study at the intermediate level in a classroom setting. Emphasis is placed on technique and interpretation of folk and hymn tunes and intermediate piano literature. Prerequisite: MUS 215 or the consent of the instructor.

MUS 217 Ear Training and Sight Singing III**credit 1 hr.**

This course is a continuation of MUS 118 and is designed to increase students' knowledge of musical concepts through rhythmic, melodic, and chordal aural recall and dictation. Prerequisite: MUS 118.

MUS 218 Ear Training and Sight Singing IV**credit 1 hr.**

This course is a continuation of MUS 217 and is designed to increase students' knowledge of musical concepts through rhythmic, melodic, and chord progressions, and four-part harmony dictation. Prerequisite: MUS 217.

MUS 226 Orchestration and Arranging**credit 2 hrs.**

This course provides students with direct instruction and hands-on application of fundamental

concepts and techniques for the orchestration and arranging of musical compositions. The course explores the capabilities and limitations of instruments and voices, historic and electronic notational practices, techniques of transcribing, and score study. Prerequisites: Music Majors Only; MUS 232.

MUS 231 Music Theory III**credit 3 hrs.**

This course includes part-writing, keyboard harmony, harmonic analysis from triads and their inversions through non-harmonic tones, the dominant seventh chord and its inversion, secondary dominants, and other seventh chords. Music studies are taken from various styles. Music Majors Only. Prerequisite: MUS 132.

MUS 232 Music Theory IV**credit 3 hrs.**

This course is an advanced study of the harmonic, structural, melodic, and rhythmic elements of music. Increased emphasis is placed on Music outside of the common period practice and on analytical techniques. This course also includes detailed study and practice of the organization of Music from the smallest structural units to large compound forms with direct application in music of composers from various periods. Prerequisites: Music Majors Only, MUS 231.

MUS 234 Recording Technology**credit 3 hrs.**

Digital recording technology & digital mixing techniques are explained and discussed. Students will use digital recording technology to learn the basics of recording and mixing music.

MUS 310 Junior Recital**credit 0 hr.**

Each music major must perform a thirty-minute recital in their area of Applied Study. Repertoire is assigned by the Applied Instructor and is representative of Baroque, Classical, Romantic and Contemporary styles. For students in the Music Industry Concentration, the recital is given in the Senior year as MUS 412, Senior Recital and Project. Prerequisite: Successful completion of Applied Lesson through the Junior year and passing of the juried Junior Recital Hearing.

MUS 330 History of Jazz**credit 3 hrs.**

This course is an overview of the history and current scholarship of jazz from its precursors to the present, highlighting the influences of African and European musical cultures. Students will study the musical elements of jazz styles within historical context. Emphasis is placed on the African diaspora, the origins of African American music, and representative composers and performers of various jazz styles.

MUS 321 Concert Recording**(DESIGNATED SERVICE-LEARNING COURSE)****credit 2 hrs.**

This course is an introduction to the concepts of the live concert recording. Microphone selection, characteristics, and placement, as well as the acoustic problems encountered in concert halls and other performing environments will be discussed. Students will have the opportunity to apply the lecture material by recording rehearsals and student recitals.

MUS 322B/D/P/N/W Brass/Percussion/Piano/Vocal/Woodwind Pedagogy **credit 2 hrs.**

This course is designed to acquaint the student with current and traditional instrument issues, materials, instruction, terminology, and practical applications, including care of the instrument. Emphasis is placed on teaching philosophies, objectives, methodologies, and procedures specific to the student's applied instrument. Prerequisites: Music Majors Only; MUS 311.

MUS 325 Jazz Improvisation**credit 2 hrs.**

This course will teach the fundamentals of jazz Improvisation, including jazz harmony, phrasing, swing rhythm, and jazz feel. Students will pursue improvisation through listening and transcribing recorded material in addition to review of chord/scale relationships. Prerequisite: MUS 232.

MUS 326 Conducting I**credit 2 hrs.**

This course provides an introduction to the art of conducting, with emphasis upon mastery of fundamental beat patterns. Emphasis is on choral and instrumental conducting, hand and baton techniques, and application through practical experience with organizations in the Music program. The course is designed to acquaint the student with the methods and organization of choral and instrumental groups in schools, churches, and communities and with the conducting of choral and instrumental music. Prerequisite: MUS 232.

MUS 328 History of African American Music**credit 2 hrs.**

This course is an overview of the history and current scholarship of African American Music from the eighteenth century to the present.

MUS 333 Music History and Literature I: The Middle Ages-Baroque Period credit 3 hrs.

This course surveys the place of Music from the Middle Ages through the Baroque Period examining influences of the Ancient Greeks, the Christian Church, opera, chamber, keyboard, and ensemble music. The course also cites examples of melody, rhythm, harmony, timbre, texture, and form through the infusion of World Musics. Prerequisite: MUS 231.

MUS 334 Music History and Literature II:

Classical Period - Contemporary Times

credit 3 hrs.

This course is a continuation of Music History and Literature II, and surveys the place of music in western civilization from the Classical Period to the present with emphasis on the sonata, symphony, opera, church music, and the concerto. The study includes topics related to World Musics, with emphasis on African and African American contributions to western music from the 1800s to the present. Prerequisite: Music Majors only, MUS 232.

MUS 412 Music Industry Senior Project

credit 1 hrs.

Students in the Music Industry Program must present a thirty-minute presentation of their multimedia/studio portfolio. Prerequisite: MUS 211E, MUS 234, MUS 321, and MUS 435.

MUS 420 Applied Lesson and Senior Recital

credit 2 hrs.

The applied lesson consists of sixty minutes of private instruction per week in the student's applied instrument. Students in the Music Industry Program must perform a thirty-minute recital in their major area of applied study. Repertoire is assigned by the applied instructor. Students must pass the juried senior hearing before presenting the senior recital. Prerequisite: MUS 411 Applied Lesson; Passing of the juried Senior Recital Hearing.

MUS 422 Recital and Document

credit 2 hrs.

Students in the Music Program must perform a one-hour recital in their major area of applied study. Repertoire is assigned by the Applied Instructor and is representative of Baroque, Classical, Romantic, and Contemporary styles. Prerequisites: Passing of the juried Senior Recital Hearing; supporting research document must be submitted for approval by the Music faculty at the Senior Recital Hearing.

MUS 423 Piano Literature

credit 2 hrs.

This course is a survey of solo piano literature from the Baroque period through the present, giving students with applied piano background a foundation in graded piano literature in preparation for teaching the instrument in a class or studio setting. Emphasis includes reading and listening assignments, analysis and performance projects, and written midterm and final exams. The course also highlights piano literature by African American composers. Prerequisite: MUS 312P Applied Lesson.

MUS 424 Special Topics

credit 2 hrs.

This course is designed to enable faculty to develop courses in the academic area of interest to them and to their students. This course will allow students to do in-depth exploration of a given topic. It may be repeated with departmental permission, provided the topic is different. Prerequisite: graduating senior only.

MUS 425 Conducting II

credit 2 hrs.

This course is a continuation of the art of conducting, with emphasis upon mastery of coordination of the hands and body in beat pattern execution and interpretation. Emphasis is on choral and instrumental conducting, hand and baton techniques, and practical application and experience with a variety of musical organizations. Prerequisite: MUS 326.

MUS 426 Choral Pedagogy

credit 2 hrs.

This course is designed to acquaint the student with current and traditional choral pedagogy issues, materials, instruction, terminology, and practical applications, including the selection of choral literature. Emphasis is placed on teaching philosophies, objectives and methodologies of choral pedagogy.

MUS 428 Instrumental Pedagogy

credit 2 hrs.

This course is designed to acquaint the student with current and traditional instrumental pedagogy issues, materials, instruction, terminology, and practical applications, including the selection of

instrumental literature. Emphasis is placed on teaching philosophies, objectives and methodologies of instrumental pedagogy.

MUS 430 Music Business**credit 3 hrs.**

This course introduces the basic elements of the music business. Topics include copyright laws; musical arrangements and abridgements; recording and songwriting contracts; agents and managers; forming and managing ensembles: creation of press kits/promotion packets; marketing techniques; performing rights organizations; and unions.

MUS 431 Form and Analysis**credit 3 hrs.**

This course is a study of various forms of composition, including song, dance, rondo, canon, fugue, and sonata forms. Prerequisites: MUS 2320 and MUS 3340.

MUS 432 Composition**credit 3 hrs.**

This course is a study of elementary forms and traditional approaches to the organization of melody, harmony, and rhythm. Fundamental composition techniques will be utilized in order to instruct students in the creation of short musical works using appropriate music notation and form. Prerequisites: MUS 232 and MUS 334.

MUS 435 Scoring for Film and Multimedia**(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

Addressing the matrix of directorial vision and visual, narrative, and dramatic world of film, this course will examine a broad range of musical approaches and those requirements necessary for composing music for film and multimedia. Cultural, cinematic, and musical codes will be discussed and critiqued through critical analyses of seminar scores, scoring assignments, and collaborative director/composer interactions.

MUS 436 Scoring for Film and Multimedia II**credit 3 hrs.**

The course is a continuation of MUS 435, with emphasis upon scoring film and multimedia projects of various genres. Prerequisite: MUS 435 or consent of the instructor.

MUS 440 Music Industry Internship**credit 3 hrs.**

Students will be assigned to studios and/or other corporate environments for on-the-job training. Prerequisite: graduating senior.

MUSIC ELECTIVES**MUS 010B Brass Ensemble****credit 1 hr.**

The Brass Ensemble rehearses and performs a mixture of traditional and twentieth century music for Brass Ensemble. Participation is open to all students with experience on standard brass instruments and by consent of the director.

MUS 010F Female Vocal Ensemble**credit 1 hr.**

This course is devoted to the study and performance of a variety of music and musical arrangements for SSAA voicing. The core of the ensemble stems from the Concert Choir and is also open to all other female students by audition. Prerequisite: Demonstrated music reading skills.

MUS 010J Jazz Combo**credit 1 hr.**

The Jazz Combo provides historical reference, cultural enrichment and music performances involving the modern jazz format for the small ensemble. Participation is open to all students by audition or consent of the director.

MUS 010P Pep Band**credit 1 hr.**

The Pep Band is an opportunity for all students with an instrumental background to provide public service through entertainment at basketball games and other related athletic events. Participation is by audition or consent of the director.

MUS 010V Vocal Jazz Ensemble**credit 1 hr.**

The Vocal Jazz Ensemble explores jazz and pop musical styles, techniques, and improvisation. Standard and contemporary vocal jazz literature is emphasized. This ensemble serves as a small ensemble option for music majors with a concentration in voice and is open to all other students by audition or consent of the director.

MUS 010W Woodwind Ensemble**credit 1 hr.**

The Woodwind Ensemble rehearses and performs a variety of traditional and twentieth century music composed, arranged, and transcribed for Woodwind Ensemble. Membership is open to all students with experience on standard woodwind instruments and by consent of the director.

MUS 010Z Jazz Ensemble**credit 1 hr.**

The Jazz Ensemble provides historical reference, cultural enrichment, and performances in the traditional Big Band/Jazz Orchestra format. The ensemble studies and performs big band literature, including swing, modern, fusion, and symphonic jazz styles. Participation is open to all students by audition or consent of the director.

MUS 224 African American Church Music**credit 2 hrs.**

This course is an overview of Music in the African American worship experience. Its contents include instruction in managing, developing, and coordinating the total church Music program. This elective is open to Music Majors and other majors.

MUS 328 History of African American Music**credit 2 hrs.**

This course is an overview of the history and current scholarship of African American Music from the eighteenth century to the present.

MUS 325 Jazz Improvisation**credit 2 hrs.**

This course will teach the fundamentals of jazz Improvisation, including jazz harmony, phrasing, swing rhythm, and jazz feel. Students will pursue improvisation through listening and transcribing recorded material in addition to review of chord/scale relationships. Prerequisite: MUS 232.

MUS 423 Piano Literature**credit 2 hrs.**

This course is a survey of solo piano literature from the Baroque period through the present, giving students with applied piano background a foundation in graded piano literature in preparation for teaching the instrument in a class or studio setting. Emphasis includes reading and listening assignments, analysis and performance projects, and written midterm and final exams. The course also highlights piano literature by African American composers. Prerequisite: MUS 312P Applied Lesson.

MUS 424 Special Topics**credit 2 hrs.**

This course is designed to enable faculty to develop courses in the academic area of interest to them and to their students. This course will allow students to do in-depth exploration of a given topic. It may be repeated with departmental permission, provided the topic is different. Prerequisite: graduating senior only.

MUS 425 Conducting II**credit 2 hrs.**

This course is a continuation of the art of conducting, with emphasis upon mastery of coordination of the hands and body in beat pattern execution and interpretation. Emphasis is on choral and instrumental conducting, hand and baton techniques, and practical application and experience with a variety of musical organizations. Prerequisite: MUS 326.

PROGRAM OF STUDY IN MUSIC INDUSTRY

MINOR: Applied Computing: Management Information Track

FRESHMAN YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
ENG 131	Analysis & Argumentation	3	ENG 132	Information, Literacy & Research	3
MATH 132	General College Math I	3	MATH 134	General College Math II	3
BIO 130/110L	General Biology/Lab or	4	HIST 130	Intro to Afr. American History	3
PHYS 141/141L	Gen. Physical Sci/Lab		*MUS 112	Applied Lesson	1
*MUS 000	Music Seminar	0	*MUS 114	Music Ensemble	1
*MUS 111	Applied Lesson	1	*MUS 116	Elementary Piano II	1
*MUS 113	Music Ensemble	1	*MUS 118	Ear Training & Sight Singing II	1
*MUS 115	Elementary Piano I	1	*MUS 132	Music Theory II	3
*MUS 117	Ear Training & Sight Singing I	1	HASS 112	The College Experience II	1
*MUS 131	Music Theory I	3			
HASS 111	The College Experience I	1			
Total		18	Total		17

SOPHOMORE YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
ENG 237	Oral Communication	3	FS/SP 233	Intermediate Foreign Language	3
ART130/THE 230	Art or Theatre Appreciation	3	*MUS 230	Music Appreciation	3
*MUS 000	Music Seminar	0	REL 120	Comparative Religion	2
*MUS 211	Applied Lesson	1	*MUS 000	Music Seminar	0
*MUS 213	Music Ensemble	1	*MUS 212	Applied Lesson	1
*MUS 215	Intermediate Piano	1	*MUS 214	Music Ensemble	1
*MUS 231	Music Theory III	3	*MUS 232	Music Theory IV	3
*MUS 211E	Electronic Computer Music	1	*MUS 234	Recording Technology	3
HASS 221	Prof. Pathways Development	2			
Total		15	Total		16

JUNIOR YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
*MUS 000	Music Seminar	0	*MUS 000	Music Seminar	0
*MUS 311	Applied Lesson	1	*MUS 226	Orchestration and Arranging	2
*MUS 313	Music Ensemble	1	*MUS 312	Applied Lesson	1
*MUS 333	Music Hist & Lit I	3	*MUS 314	Music Ensemble	1
*MUS 321	Concert Recording	2	*MUS 330	History of Jazz	3
*MUS	Music Elective	3	*MUS 326	Conducting I	2
CSC 131	Introduction to Computers	3	*MUS 334	Music Hist & Lit II	3
			MGT 332	Business Information Systems	3
			CSC 239	Intro to Multi. Computing	3
Total		13	Total		18

SENIOR YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
PE	Physical Education	2	*MUS 000	Music Seminar	0
*MUS 000	Music Seminar	0	*MUS 412	Music Industry Senior Proj	1
*MUS 411	Applied Lesson	1	*MUS 420	Applied Lesson & Sen. Recital	2
*MUS 413	Music Ensemble	1	*MUS 430	Music Business	3
*MUS 431	Form & Analysis	3	*MUS 432	Music Composition	3
*MUS 435	Scoring for Film & Multimedia I	3	*MUS 440	Music Industry Internship	3
CSC 236/335/434	Business Program/File Org & Processing/Database Mgt.	3	MKT 339	Internet Marketing	3
Total		13	ACC 432	Accounting Information Sys.	3
			Total		18

Total SCH 128

SCH in Major* 74

*Major courses require a "C" or better.

Students who do not pass the Proficiency Diagnostic Exam will be required to take *MUS 130 "Fundamentals of Music" and are not eligible to enroll in *MUS 131 or *MUS 117. *MUS 130 does not count towards required graduation credits.

PROGRAM OF STUDY IN MUSIC INDUSTRY

MINOR: Marketing

FRESHMAN YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
ENG 131	Analysis & Argumentation	3	ENG 132	Information, Literacy & Research	3
MATH 132	General College Math I	3	MATH 134	General College Math II	3
BIO 130/110L	General Biology/Lab or	4	HIST 130	Intro to Afr. American History	3
PHYS 141/141L	Gen. Physical Sci/Lab		*MUS 112	Applied Lesson	1
*MUS 000	Music Seminar	0	*MUS 114	Music Ensemble	1
*MUS 111	Applied Lesson	1	*MUS 116	Elementary Piano II	1
*MUS 113	Music Ensemble	1	*MUS 118	Ear Training & Sight Singing II	1
*MUS 115	Elementary Piano I	1	*MUS 132	Music Theory II	3
*MUS 117	Ear Training & Sight Singing I	1	*MUS 000	Music Seminar	0
*MUS 131	Music Theory I	3	HASS 112	The College Experience II	1
HASS 111	The College Experience I	1			
Total		18	Total		17

SOPHOMORE YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
ENG 237	Oral Communication	3	FS/SP 233	Intermediate Foreign Language	3
ART130/THE 230	Art or Theatre Appreciation	3	*MUS 230	Music Appreciation	3
*MUS 000	Music Seminar	0	REL 120	Comparative Religion	2
*MUS 211	Applied Lesson	1	*MUS 000	Music Seminar	0
*MUS 213	Music Ensemble	1	*MUS 212	Applied Lesson	1
*MUS 215	Intermediate Piano	1	*MUS 214	Music Ensemble	1
*MUS 231	Music Theory III	3	*MUS 232	Music Theory IV	3
*MUS 211E	Electronic Computer Music	1	*MUS 234	Recording Technology	3
HASS 221	Prof. Pathways Development	2			
Total		15	Total		16

JUNIOR YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
MUS 000	Music Seminar	0	MUS 000	Music Seminar	0
*MUS 311	Applied Lesson	1	*MUS 226	Orchestration and Arranging	2
*MUS 313	Music Ensemble	1	*MUS 312	Applied Lesson	1
*MUS 333	Music Hist & Lit I	3	*MUS 314	Music Ensemble	1
*MUS321	Concert Recording	2	*MUS 330	History of Jazz	3
PE	Physical Education	2	*MUS 326	Conducting I	2
BA 130	Introduction to Business	3	*MUS 334	Music Hist & Lit II	3
MKT 330	Principles of Marketing	3	MKT 337	Consumer Behavior	3
Total		15	Total		15

SENIOR YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
MUS 000	Music Seminar	0	*MUS 000	Music Seminar	0
*MUS 411	Applied Lesson	1	*MUS 412	Music Industry Senior Proj	1
*MUS 413	Music Ensemble	1	*MUS 420	Applied Lesson & Sen. Recital	2
*MUS 431	Form & Analysis	3	*MUS 430	Music Business	3
*MUS 435	Scoring for Film & Multimedia I	3	*MUS 432	Music Composition	3
MKT 437	Marketing Management	3	*MUS 436	Scoring for Film & Multimedia II	3
	Elective	3	*MUS 440	Music Industry Internship	3
			MKT 432	Marketing Research	3
Total		14	Total		18

Total SCH 128

SCH in Major* 74

*Major courses require a "C" or better.

Students who do not pass the Proficiency Diagnostic Exam will be required to take MUS 130 "Fundamentals of Music" and are not eligible to enroll in MUS 131 or MUS 117. MUS 130 does not count towards required graduation credits.

PROGRAM OF STUDY IN MUSIC INDUSTRY

MINOR: Management

FRESHMAN YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
ENG 131	Analysis & Argumentation	3	ENG 132	Information, Literacy & Research	3
MATH 132	General College Math I	3	MATH 134	General College Math II	3
BIO 130/110L	General Biology/Lab or	4	HIST 130	Intro to Afr. American History	3
PHYS 141/141L	Gen. Physical Sci/Lab		*MUS 112	Applied Lesson	1
*MUS 000	Music Seminar	0	*MUS 114	Music Ensemble	1
*MUS 111	Applied Lesson	1	*MUS 116	Elementary Piano II	1
*MUS 113	Music Ensemble	1	*MUS 118	Ear Training & Sight Singing II	1
*MUS 115	Elementary Piano I	1	*MUS 132	Music Theory II	3
*MUS 117	Ear Training & Sight Singing I	1	*MUS 000	Music Seminar	0
*MUS 131	Music Theory I	3	HASS 112	The College Experience II	1
HASS 111	The College Experience I	1			
Total		18	Total		17

SOPHOMORE YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
ENG 237	Oral Communication	3	FS/SP 233	Intermediate Foreign Language	3
ART130/THE 230	Art or Theatre Appreciation	3	*MUS 230	Music Appreciation	3
*MUS 000	Music Seminar	0	REL 120	Comparative Religion	2
*MUS 211	Applied Lesson	1	*MUS 000	Music Seminar	0
*MUS 213	Music Ensemble	1	*MUS 212	Applied Lesson	1
*MUS 215	Intermediate Piano	1	*MUS 214	Music Ensemble	1
*MUS 231	Music Theory III	3	*MUS 232	Music Theory IV	3
*MUS 211E	Electronic Computer Music	1	*MUS 234	Recording Technology	3
HASS 221	Prof. Pathways Development	2			
Total		15	Total		16

JUNIOR YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
MUS 000	Music Seminar	0	MUS 000	Music Seminar	0
*MUS 311	Applied Lesson	1	*MUS 226	Orchestration and Arranging	2
*MUS 313	Music Ensemble	1	*MUS 312	Applied Lesson	1
*MUS 333	Music Hist & Lit I	3	*MUS 314	Music Ensemble	1
*MUS 321	Concert Recording	2	*MUS 330	History of Jazz	3
PE	Physical Education	2	*MUS 326	Conducting I	2
BA 130	Introduction to Business	3	*MUS 334	Music Hist & Lit II	3
MGT 330	Principles of Management	3	MGT 335	Human Resource Management	3
Total		15	Total		15

SENIOR YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
*MUS 000	Music Seminar	0	*MUS 000	Music Seminar	0
*MUS 411	Applied Lesson	1	*MUS 412	Music Industry Senior Proj	1
*MUS 413	Music Ensemble	1	*MUS 420	Applied Lesson & Sen. Recital	2
*MUS 431	Form & Analysis	3	*MUS 430	Music Business	3
*MUS 435	Scoring for Film & Multimedia I	3	*MUS 432	Music Composition	3
MGT 430	Cont. Issues in Mgt	3	*MUS 436	Scoring for Film & Multimedia II	3
	Elective	3	*MUS 440	Music Industry Internship	3
			MGT 433	Organizational Theory	3
Total		14	Total		18

Total SCH 128

SCH in Major* 74

*Major courses require a "C" or better.

Students who do not pass the Proficiency Diagnostic Exam will be required to take MUS 130 "Fundamentals of Music" and are not eligible to enroll in MUS 131 or MUS 117. MUS 130 does not count towards required graduation credits.

PROGRAM OF STUDY IN MUSIC

MINOR: Education

FRESHMAN YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
ENG 131	Analysis & Argumentation	3	ENG 132	Information, Literacy & Research	3
MATH 132	General College Math I	3	MATH 134	General College Math II	3
BIO 130/110L	General Biology/Lab or	4	HIST 130	Intro to Afr. American History	3
PHYS 141/141L	Gen. Physical Sci/Lab		*MUS 112	Applied Lesson	1
*MUS 000	Music Seminar	0	*MUS 114	Music Ensemble	1
*MUS 111	Applied Lesson	1	*MUS 116	Elementary Piano II	1
*MUS 113	Music Ensemble	1	*MUS 118	Ear Training & Sight Singing II	1
*MUS 115	Elementary Piano I	1	*MUS 132	Music Theory II	3
*MUS 117	Ear Training & Sight Singing I	1	*MUS 000	Music Seminar	0
*MUS 131	Music Theory I	3	HASS 112	The College Experience II	1
HASS 111	The College Experience I	1			
Total		18	Total		17

SOPHOMORE YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
ENG 237	Oral Communication	3	FS/SP 233	Intermediate Foreign Language	3
ART130/THE 230	Art or Theatre Appreciation	3	*MUS 230	Music Appreciation	3
*MUS 000	Music Seminar	0	REL 120	Comparative Religion	2
*MUS 211	Applied Lesson	1	*MUS 000	Music Seminar	0
*MUS 213	Music Ensemble	1	*MUS 212	Applied Lesson	1
*MUS 215	Intermediate Piano	1	*MUS 214	Music Ensemble	1
*MUS 217	Ear Training & Sight Singing III	1	*MUS 216	Intermediate Piano II	1
*MUS 231	Music Theory III	3	*MUS 218	Ear Training & Sight Singing IV	1
*MUS 211E	Electronic Computer Music	1	*MUS 232	Music Theory IV	3
HASS 221	Prof. Pathways Development	2			
Total		16	Total		15

JUNIOR YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
*MUS 000	Music Seminar	0	*MUS 000	Music Seminar	0
*MUS 311	Applied Lesson	1	*MUS 226	Orchestration and Arranging	2
*MUS 313	Music Ensemble	1	*MUS 312	Applied Lesson	1
*MUS 333	Music Hist & Lit I	3	*MUS 314	Music Ensemble	1
*MUS 322W	Woodwind Pedagogy	2	*MUS 326	Conducting I	2
ED 130	Hist/Phil Found. of Education	3	*MUS 334	Music Hist & Lit II	3
ED 230	Human Growth and Dev.	3	*MUS 322B	Brass Pedagogy	2
PE	Physical Education	2	*MUS 322D	Percussion Pedagogy	2
				Cultural Relevancy in the Classroom	3
	Elective	3	ED 230		
Total		18	Total		16

SENIOR YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
*MUS 000	Music Seminar	0	*MUS 000	Music Seminar	0
*MUS 322V	Vocal Pedagogy	2	*MUS 414	Music Ensemble	1
*MUS 411	Applied Lesson	1	*MUS 422	Senior Recital and Document	2
*MUS 413	Music Ensemble	1	*MUS 430	Music Business	3
*MUS 431	Form & Analysis	3	*MUS 432	Music Composition	3
*MUS 425	Conducting II	2	*MUS	Music Elective	2
ED 322	Educational Psychology	3	ED 337	Diversity, Social Justice & 21st Century	3
	Elective	2			
Total		14	Total		14

Total SCH 128

SCH in Major* 72

*Major courses require a "C" or better.

Students who do not pass the Proficiency Diagnostic Exam will be required to take MUS 130 "Fundamentals of Music" and are not eligible to enroll in MUS 131 or MUS 117. MUS 130 does not count towards required graduation credits.

THEATRE

THEATRE COURSES

THE 110 Movement for the Theatre**credit 1 hr.**

This course is an introduction to basic physical skills, including relaxation, flexibility and manipulation of the body at rest and in motion. The course will train performers in methods for placing the body and using the stage. (May be repeated for up to 2 hours credit).

THE 120 Voice & Diction**credit 2 hrs.**

This course provides practical study of vocal (speech) production, stressing articulation, diction, and projection for theatrical performances in diverse spaces and styles.

THE 230 Theatre Appreciation**credit 3 hrs.**

This course provides a study of the art, craft, and business of the theatre. Emphasis is placed on cultivating appreciation for the work of the collaborative artists that produce theatre. Through the examination of various theatrical works, theories, and styles students will discover how theatre is reflective of social, cultural, and political movements from various historical periods and cultures. Upon completion, students will have gained the skills and knowledge necessary to broaden their understanding and enjoyment of the live theatre experience.

THE 233 Theatre and the Civil Rights Movement**credit 3 hrs.**

Through the examination of a variety of theatrical works associated with the Civil Rights Movement, Students will discover how theatre serves as a powerful tool for social change. Students will also become knowledgeable of the basic principles, processes, and theories of theatre while analyzing different genres from the African American perspective.

THE 330 Intermediate Acting**credit 2 hrs.**

This course offers continued study of the fundamental elements of the acting process focusing on classical theatre repertoire. Special attention will be paid to vocal and physical development needed in creating a role for classical theatre. Monologues and scene study will offer practical experience in character development. Prerequisite: THE 230.

THE 334 African American Theatre**credit 3 hrs.**

This course is a study of historical and contemporary plays, playwrights, actors, methods, and analyses of the African American Theatre.

CRIMINAL JUSTICE ADMINISTRATION AND SOCIAL SCIENCES DEPARTMENT**CRIMINAL JUSTICE ADMINISTRATION AND SOCIAL SCIENCES COURSE DESCRIPTIONS****HASS 111, 112 and 221 Seminars****credit 4 hrs.**

(Course descriptions are located in the Academic Department Cross-Disciplinary Courses section of the catalogue.)

CJA 230 Introduction to Justice Administration and Law Enforcement**credit 3 hrs.**

The purpose of this course is to provide students with an overview of law enforcement and justice administration. Topics include an overview of the criminal justice system, including law enforcement procedures and policies, administrative policies in law enforcement, order maintenance, field operations and public service.

CJA 231 The Court System**credit 3 hrs.****(DESIGNATED SERVICE-LEARNING COURSE)**

This course is designed to provide the jurisdiction, policies, and procedures of courts in the administration of criminal justice and the judicial process from arrest, conviction or acquittal.

CJA 233 Theories in Criminology**credit 3 hrs.**

During the study of this course, the foundations of criminological thought will be studied through the works of early theorists, including: Bentham, Lombroso, Ferri, Marx and Dubois. Also explored during the study of this course will be contemporary theorists such as Merton, Hirschi, Wilson, Kleck, and Williams, along with the Classical, Positive, and Chicago Schools of Thought. The course examines past and contemporary theories of crime causation. The materials for this course will provide critical resources relevant for the overall understanding of paradigms in criminology.

CJA 234 Women in Criminal Justice**credit 3 hrs.**

This course is designed to explore women's involvement in three primary areas of criminal justice—as victims, criminals and practitioners employed in criminal justice agencies. It will analyze the impact of sex and gender on such things as criminological theory, sentencing, prison subcultures victimization, and career choices.

CJA 237 Introduction to Correction Systems**credit 3 hrs.****(DESIGNATED SERVICE-LEARNING COURSE)**

This course will provide students an overview of correctional philosophies and practices; it will also provide alternatives to corrections-probation, pardon, and parole techniques [halfway houses, etc.]. This course is a multidisciplinary study of corrections from the early 1800's to the present. This course focuses on the roles of corrections for offenders and society. This course starts with a historical and philosophical view of the development of corrections and focuses on the adult offenders.

CJA 238 Computing in Justice Administration**credit 3 hrs.**

This course provides students with an overview of the communications, database, vehicle, and weapons technologies employed by law enforcement, including a brief discussion of the evolution of these resources over time. The course also covers the current state of technology use in law enforcement agencies at all phases of investigation from first response to forensic investigation of evidence, along with evaluation and assessment of the deployment of various technologies in the field.

CJA 330 Juvenile Justice**credit 3 hrs.**

This course focuses on the specific characteristics of juvenile criminal behavior, including: detection, analysis, prevention, and treatment methodology. This course will also provide a detailed overview of the juvenile justice system, from its beginnings to the current state of the institution, which will include a review of police work with juveniles, pretrial procedures, the juvenile court system and the juvenile correctional system. Major court rulings that have shaped contemporary juvenile justice will be presented as well.

CJA 331 Introduction to Forensic Science**credit 3 hrs.**

Forensic Science is the application of scientific disciplines and principles to the legal system, particularly the litigation in court of contested factual disputes. This course examines the distinct fields of education and study that collectively comprise the forensic sciences. These fields include among others forensic psychiatry and psychology, forensic anthropology, forensic pathology,

forensic toxicology, serology and DNA typing, questioned documents, crime scene investigation, forensic engineering, fingerprint evidence, polygraph and other investigative devices, and forensic chemistry including drug analysis.

CJA 332 Probation, Pardon, and Parole**credit 3 hrs.**

This course is designed to highlight issues such as sentencing patterns and problems, prison overcrowding issues, release options, and administrative procedures.

CJA 333 Victimology**credit 3 hrs.**

In this course, we will examine the field of victimology, the scientific study of victims, including its scope and development, review the problems associated with victimization, examine the relationship between the victim and the offender, the victim and the criminal justice system, the role of victims in crimes, their treatment by the criminal justice system, their decisions to report crimes and help prosecute offenders, and victim assistance and compensation. We will also discuss various practical applications and policies that have resulted from society's increasing concern about victims.

CJA 335 Globalization and Terrorism**credit 3 hrs.**

This course focuses on the major attributes of contemporary terrorism, how it has developed throughout history, and the counter-terrorism strategies adopted by governments in response. The course has a strong domestic and international focus and is concerned with evaluating how international trends impact on government policy and the intersection between domestic and international issues surrounding terrorism.

CJA 336 Deviance and Social Control**credit 3 hrs.**

Biological, psychological, and sociological theories of causes of deviance are critically examined with a focus on the social construction of categories of crime and the creation of criminality. Both traditional and contemporary forms of deviance are examined with a focus on the relationship between cultural values and the social processes by which deviance is created and dealt with in the United States. The social construction of categories of crime, public concern, media influence, reform movements and solutions to crime are also covered.

CJA 430 Organization, Management & Administration in Criminal Justice **credit 3 hrs.**

The course will be a broad overview of the structure and management of criminal justice organizations.

CJA 431 Homeland Security Policy and Politics**credit 3 hrs.**

In this course emphasis is placed upon the identification, comparison and understanding of the various definitions of terrorism and the perpetrators of these acts, along with the various aspects of terrorism and homeland security which are required knowledge of anyone who are scholars, practitioners, researchers and scholar/practitioners in the field and discipline of terrorism and homeland security. The student will be exposed to the nexus between terrorism and homeland security as it relates to homeland security strategy, assessment, evaluation, preparation, responses, and recovery actions and mechanisms relating to terrorism and homeland security. There will be a focus on the importance of coordination of various assessments, plans, strategies and implementation of plans of action involving local, county, state, federal and international responses pertaining to terrorism and homeland security.

CJA 434 Capstone**credit 3 hrs.**

This course is designed to support the student as they complete their senior research paper and presentation. Students are further prepared to evaluate the research of others and to demonstrate their ability to design, conduct, and present research in the area of justice administration. The required senior paper will be completed and defended in this course.

CJA 437 Minorities, Crime, and Social Policy**credit 3 hrs.**

The involvement of minorities, specifically, African Americans in crime and the criminal justice system. Emphasis will be directed towards the political and social dynamics that influence judicial decision making and the role of democracy and punishment in the courts. The analysis will also focus the historical and contemporary structure of American law, policy, and procedure and its application to minority offenders.

CJA 438 Contemporary Issues in Criminal Justice**credit 3 hrs.**

This course is an examination of basic methodological and statistical concepts in criminology. Emphasis will be directed towards understanding the scientific method and problem solving

specific to the criminal justice system, including forensic sciences, and computer and biotech applications.

CJA 439 Special Topics**credit 3 hrs.**

The course is designed to enable faculty to develop interdisciplinary topics of special interest to them and to their students that are not listed in the regular course offerings. This 400-level elective course may be repeated, provided the topic is different.

CJA 440 Internship**credit 3 hrs.**

This course is designed as a senior-level course, which allows students to gain practical experience, by working within one of the criminal justice core areas: courts, corrections, or law enforcement. Students have the opportunity of combining theory with practice.

SS 330 Writing and Presenting in the Social Sciences**credit 3 hrs.**

Research skills such as identification of problems and solutions, reading academic literature, use of data, and research paper writing and presentation will be covered. The aim of the course is for students in the social sciences and humanities to acquire knowledge and understanding of various types of academic language; furthermore, they should develop the ability and assurance to communicate, both in writing and orally.

SS 339 Cultural Anthropology**credit 3 hrs.**

This survey course focuses on the major concepts, theories and methods employed by anthropologists to understand social and cultural aspects of human experience. The course explores world views and belief systems of different people in their particular contexts. The course explores topics such as religion and ritual, language and symbols, gender and families, individual and cultural identity, power and control, violence, conflict, and social change. The course investigates human diversity and culture through a variety of written and visual descriptions of different groups. The investigation of other cultures helps students become more aware of their own cultural patterns and develop a critical perspective of their own cultural biases.

PSY 439 Special Topics**credit 3 hrs.**

The course is designed to enable faculty to develop interdisciplinary topics of special interest to them and to their students that are not listed in the regular course offerings. This 400-level elective course may be repeated by departmental permission, provided the topic is different. Prerequisite: graduating senior only.

PROGRAM OF STUDY IN CRIMINAL JUSTICE ADMINISTRATION

FRESHMAN YEAR						
First Semester			SCH	Second Semester		SCH
ENG 131	Analysis & Argumentation	3		ENG 132	Information, Literacy & Research	3
MATH 132	Gen. College Math I	3		MATH 134	General College Math II	3
BIO/CHEM/ESC/PHY	General Science Lecture	3			Health and Wellness	2
BIO/CHEM/ESC/PHY	General Science Lab	1		FR/SP/AR 233	Intermediate Foreign Language	3
FR/SP/AR 130	Lang. and Culture (optional)	0			Elective	6
HIST 130	Intro to Afr. American History	3		HASS 112	The College Experience	1
HASS 111	The College Experience	1				
Total		14		Total		18

SOPHOMORE YEAR						
First Semester			SCH	Second Semester		SCH
ENG 237	Oral Communication	3		*CJA 231	The Court System	3
*CJA 230	Introduction to Justice Adm.	3		*CJA 234	Women in Criminal Justice	3
*CJA 233	Theories in Criminology	3		*CJA 237	Intro to Correction Systems	3
POLS 330	State and Local Govmnt.	3		*CJA 238	Computing in Justice Admin.	3
CYBR 230	Introduction to Cybersecurity	3		CYBER 235	Law , Social Policy & Ethics	3
HASS 221	Prof. Pathways Development	2		CSC 131	Introduction to Computers	3
Total		17		Total		18

JUNIOR YEAR					
First Semester			Second Semester		
		SCH			SCH
*CJA 333	Victimology	3	*CJA 332	Probation, Pardon, & Parole	3
*SS 230	Statistics in Social Sci.	3	*CJA 431	Homeland Security Policy	3
*CJA 331	Introduction to Forensics	3	*CJA 335	Globalization and Terrorism	3
*CJA 330	Juvenile Justice	3		Elective or Minor Course	9
*SS 235	Quantitative Research Meth.	3			
Total		15	Total		18

SENIOR YEAR					
First Semester			Second Semester		
		SCH			SCH
*CJA 430	Org, Mgt, & Admin. in CJA	3	HIST 430	History of Civil Rights	3
PSY 431	Abnormal Psychology	3	*CJA 434	Capstone	3
POLS 433	International Law and Org	3	*CJA 440	Internship	3
*SS 330	Writing and Present in SS	3		Elective	6
	Elective	1			
Total		13	Total		15

Total SCH 128
SCH in Major* 57
*Major courses require a "C" or better.

CYBERSECURITY

The Bachelor of Science (BS) Degree in Cybersecurity will allow students to engage in a comprehensive cybersecurity education program. The degree is crafted to prepare students to enter or advance a professional career in specialized cybersecurity units, in law enforcement or cybersecurity departments in various organizations. Students will gain an interdisciplinary understanding of computer science, criminal justice, and information security policy and procedures. The degree is specifically tailored to combine a thorough understanding of best practices and procedures in cybersecurity combined with fundamental computer science content knowledge. The field of cybersecurity is a growing transnational phenomenon where the potential for jobs and support for graduate education is expected to grow exponentially over the next 15 to 20 years. Our program will highlight practical digital/computer investigative knowledge, critical legal skills, and an understanding of information security policies, along with the social, and cultural issues related to cybersecurity risks. Upon completion of the program, students will be prepared to pursue career paths in areas such as Computer Forensics Investigator, Information Security Specialists, Cyber Operations Planner, Cyber Threat Intelligence Analyst, Chief Information Security Operations Manager among many other cybersecurity related positions and fields.

Cybersecurity Course Descriptions**HASS 111, 112 and 221 Seminars****credit 4 hrs.**

(Course descriptions are located in the Academic Department Cross-Disciplinary Courses section of the catalogue.)

CYBR 230 Introduction to Cybersecurity Threats**credit 3 hrs.**

In this course students gain a basic understanding of the fundamental concepts behind cybersecurity, basic security design fundamentals that help create systems that are worthy of being trusted, and an introduction to the components in an information technology system along with the roles in system operation.

CYBR 232 Network Technology and Protocols**credit 3 hrs.**

In this course, students gain an introduction to networking technologies for local area networks, wide area networks, and wireless networks. The also acquire the knowledge and skills to analyze and assess network risks, select and deploy appropriate countermeasures, evaluate methods for strong authentication, search for possible vulnerabilities in operating systems, and reduce an organization's exposure to dangers in enterprise-wide and virtual private networks. The course will also cover layer 2 networking, identifying the security concerns at layer 2 and layer 3 of a network, the weaknesses of WEP and how they have been addressed. This course covers multiple domains on the (ISC)2 CISSP exam.

CYBR 234 Computers, Crime, and Culture**credit 3 hrs.**

This course examines computers anthropologically, as artifacts revealing the social orders and cultural practices that create them along with the basic information about the threats that are present in this new cyber realm. Students in the course will review the motivation and techniques of cybercrime, the adversary model, types of attacks, events that indicate an attack has happened, attack timing, attack surfaces, covert channels, insider problems, social engineering, threat information sources and legal issues associated with cyber threats. Emphasis is placed on understanding the culture of cyber threats, identifying the culture of bad actors in cyberspace, and describing the different types of attacks and their characteristics.

CYBR 235 Law, Social Policy, Digital Ethics, and Compliance**credit 3 hrs.**

The course covers the larger social policy, legal, and compliance issues surrounding information assurance in context and the rules and guidelines that control these issues. The course focuses on federal laws, state laws, US and international standards, the concept of jurisdictions in the digital world, the payment card industry, and BYOD issues. This course reviews how ethical foundations are applied to the networked digitized world. Also discussed is the social impact of cybercrime, diverse ethical dilemmas, and the role of cybersecurity in supporting and encouraging ethics, as well as where cybersecurity practices can cause ethical conflicts. (Cross listed as CJA 235 and PSY 236)

CYBR 332 Digital Forensics in the Criminal Justice System**credit 3 hrs.**

This course provides students with an overview of the criminal justice system and the application of digital forensic evidence in criminal justice cases. The course focuses on providing students with the skills to apply forensics techniques throughout an investigation life cycle with a focus on complying

with legal requirements. The course covers the rules, laws, policies and procedures that affect digital forensics and the steps in performing digital investigations. The student is introduced to the science, technology, procedures, and law of acquiring and analyzing digital evidence from computers and other devices. Finally, students are exposed to the use of various digital forensics tools.

CYBR 334 Cybersecurity Risk Analysis**credit 3 hrs.**

The course provides students with an understanding of risk assessment models, methodologies, and processes such that they can perform a risk assessment of a particular system and recommend mitigations to identified risks. The course will cover risk as it relates to a system security policy, risk analysis methodologies, the evaluation and categorization of risk, advantages and disadvantages of risk assessment methodologies, and how to select the optimal methodology based on needs, advantages and disadvantages.

CYBR 335 Ethical Hacking**credit 3 hrs.**

This class demonstrates the ethical use of various "white hat" cyber penetration testing tools and techniques consistent with Ethical Hacking training. The course introduces the student to the methods and techniques used by computer hackers and penetration testers from a real-world perspective. The objective of this course is to provide the student with an understanding of offensive security. It will provide students with the knowledge of how to plan, organize, and perform penetration testing on a simple network. Ultimately, students will learn about the legal ramifications of penetration testing and how to minimize the security risks organizations face today.

CYBR 338 Introduction to Cryptography**credit 3 hrs.**

This course provides students with a general overview of the tools for ensuring the privacy, authenticity, and integrity of the increasingly sensitive information involved in modern digital systems. The course introduces the student to the concepts behind the use of core cryptographic tools, including encryption, message authentication codes, digital signature, and key agreement protocols. Ultimately, the course attempts to convey the ideas and principles behind cryptographic design, and the basic ability to understand where and how cryptography is used.

CYBR 430 Cyber Crime, Fraud Prevention and Management**credit 3 hrs.**

The course will provide students with an understanding of cybercrimes and other abuses in a cyberenvironment. Students will examine how the internet is used for cybercrime, cyber-stalking, and other abusive behaviors, and evaluate the effectiveness of cybersecurity in preventing crime and abuse. Additionally, students will be exposed to the necessary knowledge to develop plans and processes for a holistic approach to preventing and mitigating fraud through the system lifecycle.

CYBR 433 Human Aspects of Computing and Privacy**credit 3 hrs.**

This course integrates knowledge gained through previous coursework and experience and builds on that conceptual foundation through integrative analysis, practical application, and critical thinking. This course surveys the human aspects of cyber threats and the issue of privacy. Topics include ethics, privacy, usability security, cybercrime and the social, psychological and cultural aspects of cybercrime. Emphasis will be placed on identifying the bad actors in cyberspace and comparing their resources, capabilities/techniques and aversion to risk, and describing the different types of attacks and their characteristics, concepts of privacy, the effect the internet has on privacy, privacy protection procedures, and privacy laws and policies in various jurisdictions.

CYBR 436 Cybersecurity Program Planning and Management**credit 3 hrs.**

This course will provide an introduction to all aspects of cybersecurity, security program planning, development, management and assessment. The students will gain the ability to develop plans and processes for a holistic approach to cybersecurity for organizations and gain the knowledge necessary to define, implement, and assess a security program. The course will cover the placement of security functions in a system, how to develop contingency plans for various organizations, how to develop specific protection plans, and how to outline the roles of personnel in planning and managing security. The student will learn to develop a security plan, manage a security program and assess the effectiveness of a security program.

CYBR 437 Capstone**credit 3 hrs.**

The Cybersecurity Capstone is specifically designed to provide a platform for verified learners to practice the hands-on cybersecurity skills and techniques studied in the courses toward the development of a project for defense and presentation. Student teams will apply the design process by developing and testing a project addressing the emerging issues related to information assurance and cyber defense. The culmination of this project requires an oral presentation and a written report.

CYBR 438 Web, Cloud and Media Security**credit 3 hrs.**

The course will provide students with an understanding of the technology, tools and practices associated with web applications, modern host virtualization, and the interfaces between major components of virtualized systems and the implications these interfaces have for security. Additionally, students will be exposed to information that will give them the ability to apply forensics techniques to investigate and analyze a particular media in context.

CYBR 440 Internship**credit 3 hrs.**

This course is designed as a senior-level course, which allows students to gain practical experience, by working in a lab, company, or government organization in the area of cybersecurity. Students have the opportunity of combining theory with practice.

PROGRAM OF STUDY IN CYBERSECURITY

FRESHMAN YEAR

<i>First Semester</i>			<i>SCH</i>	<i>Second Semester</i>			<i>SCH</i>
ENG 131	Analysis & Argumentation		3	ENG 132	Information, Literacy & Research		3
MATH 140	PreCalculus I		4	MATH 143	Calculus I		4
HIST 130	Afr. American History		3	*CSC 133	Digital Logic		3
	Global & Intercultural		3	BIO/CHEM/ESC/PHYS	General Science Lecture		3
*CSC 132	Introduction to Computing		3	BIO/CHEM/ESC/PHYS	General Science Lab		1
HASS 111	The College Experience		1	*CSC 135	Intro to Programming		3
				HASS 112	The College Experience		1
Total			17	Total			18

SOPHOMORE YEAR

<i>First Semester</i>			<i>SCH</i>	<i>Second Semester</i>			<i>SCH</i>
ENG 237	Oral Communication		3	MATH 336	Discrete Mathematics		3
MATH 144	Calculus II		4	*CSC 138	Algorithm Design II		3
*CSC 136	Algorithm Design I		3	*CSC 237	Java Programming		3
*CYBER 230	Intro to Cybersecurity		3		Minor Elective		3
*CSC 231	Assembly Language		3		Elective		3
HASS 221	Professional Pathways Dev		2				
Total			18	Total			15

JUNIOR YEAR

<i>First Semester</i>			<i>SCH</i>	<i>Second Semester</i>			<i>SCH</i>
*CYBER 335	Ethical Hacking		3	*CYBER 332	Digital Forensics		3
*CYBER 235	Social, Legal, & Digital Ethics		3	*CYBER 334	Cybersecurity Risk Analysis		3
*CYBER 234	Computers, Crime & Culture		3	*CYBER 338	Intro to Cryptography		3
*CSC 334	Computer Org and Arch.		3	FR/SP/AR 233	Intermediate Foreign Language		3
	Minor Requirement		3		Minor Requirement		3
					Health and Wellness		2
Total			15	Total			17

SENIOR YEAR

<i>First Semester</i>			<i>SCH</i>	<i>Second Semester</i>			<i>SCH</i>
*CYBER 430	Cyber Crime & Fraud Prev.		3	*CYBER 433	Human Aspects of Computing & Privacy		3
	Global and Intercultural		3		Minor Requirement		3
*CYBER	Major Elective 300-400 level		3	*CYBER 437	Senior Capstone		3
	Minor Requirement		3	*CYBER 440	Internship		3
	Elective		4				
Total			16	Total			12

Total SCH 128
SCH in Major* 60

*Major courses require a "C" or better.

HISTORY COURSE DESCRIPTIONS**GEO 331 World Regional Geography****credit 3 hrs.**

This course is the study of how geographical features and patterns interact with political processes to create a constantly evolving political landscape. Studies in World Regional Geography can be local, regional or global in scale. In this course, we are most concerned with the global scale because global outcomes are often driven by local phenomena.

HIST 130 Introduction to African American History**credit 3 hrs.**

This course traces major developments in African American people from their ancient African origins through medieval kingdoms to the Atlantic slave trade and subsequent enslavement and emancipation in the Americas to the modern struggle for civil rights. Particular emphasis will be placed on Reconstruction, post Reconstruction policy, cultural and educational developments civil rights, leadership, and contemporary issues and concerns.

HIST 131 World Civilization I**credit 3 hrs.**

This course surveys ancient and medieval civilizations from their origins through the Renaissance. Egypt, Mesopotamia, Greece, Rome, Africa, and the ancient Near East, China, and India are studied. The impact of these early civilizations upon the development of modern civilization is emphasized. An honors section is offered as Hist 131 (H).

HIST 132 World Civilization II**credit 3 hrs.**

This course is a survey of the evolution of civilization since 1660. Emphasis is placed on the rise of the modern nation state, the ascendancy of the Western powers, and the growth of the "Third World" nations in the wake of World War II. Concurrently, attention is given to the development of science, the arts, and social and political institutions as they interrelate worldwide. An honors section is offered as Hist 132 (H).

HIST 231 U.S. History I**(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

This course is a survey of the history of the United States from its European background and colonization through the Civil War. This course traces the development of the political, economic, social, and cultural institutions of the United States. An honors section is offered as Hist 231 (H).

HIST 232 U. S. History II**(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

This course is a survey of the growth and development of the United States from reconstruction to the present. Particular emphasis is given to the impact of the Afro-American on the development of the United States during the 19th and 20th centuries. An honors section is offered as Hist 232 (H).

HIST 331 United States Military Policy**credit 3 hrs.**

This course is a study of the history of American military policy as expressed in American military institutions, experience and traditions in peace and war from colonial times to the present. Emphasis is on the relationship between the military and other entities in American society and on the role of the military in the establishment, expansion, preservation and development of the nation.

HIST 334 History of Africa**credit 3 hrs.**

This course is a survey of African History from earliest times to the present, with particular emphasis placed on the modern period.

HIST 335 History of Europe I**credit 3 hrs.**

This course treats Europe in detail from the beginning of the French Revolution in 1789 to the beginning of World War I in 1914. Particular attention is paid to the rise of nationalism, the social, cultural, and political impact of industrialism, and European colonialism.

HIST 336 History of Europe II**credit 3 hrs.**

This course traces the conduct of World Wars I and II and their impact upon the history of Europe. It analyzes the causes and effects of the Cold War, the end of colonialism, and the recent background of current events in Europe.

HIST 337 African American History**(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

This course examines the nature of African societies—their social, religious, educational, cultural and political systems before the arrival of Europeans, African exploration of the Americas, and comparative studies of reactions to enslavement and resistance in the Americas through the Civil War.

HIST 338 African American History II**(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

This course focuses on the social, political and cultural means and strategies used by African Americans to cope with discrimination and racism as they attempted to access American society immediately after emancipation up to the Civil Rights period. African American responses such as Black Nationalism, emigration, migration, participation in the military, and their creation of an American vision will be examined against the background of Reconstruction, rescinding of the promises of emancipation, and the establishment of segregation and Jim Crow.

HIST 339 U. S. History, 1914 to the Present**credit 3 hrs.**

This course traces political, economic, diplomatic, and military history From World War I to the present. The course emphasis is on the ethnic, technological, political, and cultural developments of this period in American History.

HIST 430 The Civil Rights Movement in the United States**(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

This course provides a comprehensive study of the Civil Rights Movement in the twentieth century. The course will examine the scholarly, political, social and economic issues related to the movement. An honors section is offered as Hist 430 (H).

HIST 431 Asian History**credit 3 hrs.**

THIS course is a survey of Far Eastern History beginning with the arrival of European mariners. The theme of the course is the relationship between the Far East and the Western powers. The student is introduced to the geography, resources, principles, cultures, and strategic nature of Asia. The impact of colonialism is traced from its beginnings through its decline to the present. The course explores the effect of colonialism in Asia on the colonizers and the colonized, leading to a broader understanding of the conflicting motivations that underlie current events in the Far East.

HIST 433 Contemporary Issues in the Study of History**credit 3 hrs.**

This course will allow students to better utilize their strengths and expand learning. This course will further develop writing, reading, and critical thinking skills, prepare students for graduate school, and introduce new topics of study. Students will be introduced to more historical actors, events, and timelines. This course will help students gain the mastery they need to analyze historical evidence, formulate theses, and write effectively

HIST 435 History of Latin America and the Caribbean**credit 3 hrs.**

This course is a survey of Latin America and the Caribbean, tracing their history since contact by

Columbus. The region's political history is examined from the early struggles among the colonial powers up through the Post-World War II independence of most Caribbean islands. At the same time, the student studies the geographic, economic, and the ethnic aspects of the region. Course is offered in alternate years.

HIST 436 African American Profiles**credit 3 hrs.**

This course will be a scholarly treatment of the biographical histories of prominent African Americans. Currently, many noted African American life experiences receive only surface treatment in other courses. This course will provide the student with more in-depth analysis of the life and impact of prominent African American from the early 17th century to the present.

HIST 437 Reading, Writing and Thinking History I**credit 3 hrs.**

This is the first of the two required courses designed to provide students with the opportunity to integrate their substantive and theoretical knowledge in history to their individual research projects. This course focuses on the methods of historical inquiry, including critical analysis and interpretation of a world-wide range of primary and secondary sources as well as finding a research topic and developing a proper research proposal.

HIST 438 Reading, Writing and Thinking History II**credit 3 hrs.**

This is the second required course designed to allow students to use what they have learned by re-searching and writing a significant and original historical paper, the Senior Paper, based on the proposal developed in the preceding Hist 437. Prerequisite: Hist 437

HIST 439 Methods and Materials in the Teaching of Social Studies**credit 3 hrs.**

This course is a study of the theory and the application of new strategies in methods and materials of teaching social studies. Emphasis is given to the use of audio-visual and other procedures that maybe used in the classroom to achieve competency-based instruction. Emphasis is placed on the processes of inquiry and discovery, the development of concepts, and the analysis of values and strategies for teaching current and controversial issues.

SSCJ 439 Special Topics (Elective)**credit 3 hrs.**

The course is designed to enable faculty to develop interdisciplinary topics of special interest to them and to their students that are not listed in the regular course offerings. This 400-level elective course may be repeated, provided that the topic is different. Prerequisite: graduating senior only.

SSCJ 440 Internship**credit 3 hrs.**

This course encompasses the practical application of ideas, theories, and concepts emphasized in the classroom. Students are assigned to both private and public agencies and are supervised by the agency and the instructors at Benedict College. Students may be assigned appropriate non-agency activities at the discretion of their academic advisor.

POLITICAL SCIENCE COURSES**POLS 230 Introduction to Political Science****(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

An introduction to the discipline of political science, examining its foundation and relationships to other social science disciplines. This course also emphasizes the major concepts, theories and ideologies used in the study of political behavior, phenomena, and processes in a changing world.

POLS 233 American National Government**(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

The course is an introduction to the principles and problems of government and the political process with particular emphasis on American national government. The course focuses on the evolution, organization, and powers of the national government. Particular emphasis is placed upon the role of the national government in current affairs.

POLS 234 Introduction to International Relations**credit 3 hrs.**

This course is a study of the interaction of forces, factors, and institutions of international politics, including an examination of the concepts and problems involved.

POLS 330 American State & Local Government**(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

This course examines the development and content of state constitutions, special reference is made to the political, administrative, and judicial systems of South Carolina. Attention is focused on the problems that occur in the relations between state and local government.

POLS 331 Municipal Government**(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

The course is a study of contemporary municipal government in the United States with reference to types, legal aspects, organizations, and functions. Attention is given to financial and personnel politics and elements in intergovernmental relations involving city, state, and national government.

POLS 332A Scope and Methods of Political Science**credit 3 hrs.**

An introduction to the philosophy, logic and methods of social and political analysis. The course examines the development of political science discipline, the scientific methods, the ethical issues in social science research, and research design.

POLS 333 Introduction to Political Thought**credit 3 hrs.**

A survey of the major political theories and ideologies, through an examination of the major texts and thinkers of the Western political tradition. Emphasis is placed on their contributions to human society. Prerequisite: Political Science 332

POLS 334A Theories of International Relations**credit 3 hrs.**

Analysis and evaluation of main theories of international relations, including realist, neo-realist, liberal, neo-liberal, Gramscian, Marxist, feminist, and post-modernist approaches. Emphasis is placed on the contributions of the theories to an understanding of contemporary world politics.

POLS 335 United States Foreign Policy**credit 3 hrs.**

This course analyses the principles and practices of the United States foreign policy from the founding of the country to the present time. Emphasis will be put on the institutional framework for the initiation and execution of the United States foreign policy, as well as on its impacts on selected areas around the world.

POLS 336 Introduction to Public Administration**credit 3 hrs.**

This is a survey of the evolution of Public Administration as a discipline and as a process. This course studies the organization and management of governmental affairs relating to the concept of the state.

POLS 337 American Law and Regulations**credit 3 hrs.**

Designed to introduce the student to the principal forms of American law—constitutional, statutory, common as well as judicial rulings and administrative regulations, the course provides the student with a general background relevant to the political process, governmental administration, and law enforcement, including judicial interpretation and review.

**POLS 338 American Political Parties and Elections
(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

The course analyzes the evolution, structure, role, functions, and techniques of American political parties and how they are influenced by special interests and pressure groups. Emphasis is placed on party platforms, nominating devices and campaign strategies.

POLS 430A The U.S. Congress**credit 3 hrs.**

Comprehensive study of the American legislative process emphasizing the development and operation of the U.S. Congress. The interaction of Congress with other political institutions will also be examined.

POLS 430B The U.S. Presidency**credit 3 hrs.**

Examination of the office of President with attention to its historical and constitutional development, to presidential selection, and to the various roles, powers, functions, and problems attendant to the contemporary Presidency.

POLS 430C The U.S. Supreme Court**credit 3 hrs.**

Comprehensive study of the American judicial system emphasizing the development and operation of the U.S. Supreme Court. The interaction of U.S. Supreme Court with other political institutions will also be examined.

POLS 431 Modern Political Thought**credit 3 hrs.**

This course examines in depth some of the most influential political theories and ideologies of the modern age (from Machiavelli through the twentieth century). Emphasis is placed upon the content of these theories and ideologies, as an understanding of contemporary politics.

POLS 432 Readings in Political Science**credit 3 hrs.**

The course, through the selection of appropriate readings, deals with the concepts and subject matter of political science. Through individual research and the preparation of a major paper, the student may focus on a particular area of political science or public administration.

POLS 433A International Law and Organizations**credit 3 hrs.**

This course examines the origins of international norms and the creation of institutions to develop, entrench, and enforce international them. Emphasis is placed on the United Nations and the major regional organizations, such as the European Union, the African Union and NAFTA.

POLS 433B International Political Economy**credit 3 hrs.**

This course examines the relationship between politics and economics on the national and international levels, focusing on the impact of political forces on the functioning of the international economic system.

POLS 434 Comparative Politics**credit 3 hrs.**

This course surveys the different types of political systems of the contemporary world, in order to understand their similarities and differences. Emphasis is placed on the constitutional principles, governmental institutions, and political problems of democratic countries (such as the United Kingdom, France, Germany and Japan), communist and post-communist countries (such as Russia and China), as well as developing countries (such as Nigeria).

**POLS 436 Political Change and Modernization
(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

The course is a systematic exploration of theories of political change including an examination of the impact of change in the socio-economic system. The implications of these theories for exploring the experience of both Western and new states are considered. Enrollment is by permission of instructor only.

**POLS 437 Applied Political Science Research I
(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

This is the first of two required courses designed to provide students with the opportunity to integrate their substantive and theoretical knowledge in Political Science to their individual research project. This course focuses on topic selection, literature review and proposal writing. Prerequisite SSCJ 333 and SSCJ 334.

**POLS 438 Applied Political Science Research II
(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

This is the second required courses designed to provide students with the opportunity to integrate their substantive and theoretical knowledge in Political Science to their individual research project. This course focuses on data collection, data analysis, and the writing of the senior paper. Prerequisite: Pols 437.

SSCJ 439 Special Topics

credit 3 hrs.

The course is designed to enable faculty to develop interdisciplinary topics of special interest to them and to their students that are not listed in the regular course offerings. This 400-level elective course may be repeated, provided that the topic is different. Prerequisite: graduating seniors only.

SSCJ 440 Internship

credit 3 hrs.

The course involves a placement of students in selected agencies to work in specific areas requiring particular professional skills in city, state, and national government. A report of this activity is expected upon conclusion of placement. Students may be assigned to appropriate kinds of non-agency activity by permission of the major area advisor.

RELIGION AND PHILOSOPHY COURSES

PHIL 230 General Philosophy

(DESIGNATED SERVICE-LEARNING COURSE)

credit 3 hrs.

The course introduces the student to the most significant philosophical approaches man has made toward the understanding of his environment. Emphasis will be placed on analysis and interpretation of reasoned statements and fallacious arguments in order to achieve clear, critical thinking.

PHIL 235 African American Philosophy

credit 3 hrs.

Introduction of personalities representative of the African American philosophical tradition. Insight into the general character of his tradition and its general character of this tradition and its distinctive style of philosophizing. This course also emphasizes issues of social philosophy, ethics, and religion in the African American communities.

PHIL 330 Critical Thinking and Logic

(DESIGNATED SERVICE-LEARNING COURSE)

credit 3 hrs.

This course introduces students to the basic rules for valid reasoning. Students learn how to assess arguments critically by others and how to construct valid arguments. Deductive, inductive and propositional logic are covered. Prerequisites: Math 134.

PHIL/REL 333 Philosophy of Religion

credit 3 hrs.

This course exposes the student to the historical problems and challenges posed by reason to religious belief systems.

PHIL 430 Social Ethics

credit 3 hrs.

A study of the problems of the moral life as related to contemporary social, political and economic trends; the character of the individual; and the philosophical foundations of morality form the subject matter of this course.

PHIL 431 Trends in Modern Philosophy

credit 3 hrs.

The course guides the student in an examination of current philosophical trends and their contemporary representatives. In addition, all modern systems are noted, including idealism, naturalism, materialism, existentialism, theistic and nihilistic realism, pragmatism, humanism, and logical positivism. Prerequisite: PHIL 230.

PSYCHOLOGY COURSES DESCRIPTIONS

HASS 111, 112 and 221 Seminars

credit 4 hrs.

(Course descriptions are located in the Academic Department Cross-Disciplinary Courses section of the catalogue.)

PSY 213 Careers in Psychology

(DESIGNATED SERVICE-LEARNING COURSE)

credit 1 hr.

This course is designed to provide the student with career guidance and an overview of current trends in psychology. Topics include types of careers available and required preparation for careers.

PSY 222 African American Psychologists

credit 2 hrs.

This course provides an in-depth analysis of the theory, research, and careers of both early and

contemporary African American psychologists.

PSY 230 General Psychology**credit 3 hrs.**

The aim of this course is to introduce the students to the basic concepts in the scientific study of human behavior and mental processes. This includes research methods, psychological theory, development learning, memory, cognition, intelligence, perception, motivation, emotion, personality theory and assessment, psychological disorders, therapy and social psychology.

SS 230 Statistics in the Social Sciences**credit 3 hrs.**

Statistics is approached as a tool in social research and in applied social sciences. Measures of central tendency and dispersion, probability, tests of significance, and correlation are covered. Prerequisites: Math 132 and Math 134 or Math 138 and Math 140.

SS 232 Critical Thinking and Logical Analysis in the Social and Behavioral Sciences**credit 3 hrs.**

The course aims to help students to understand and develop the skills required for critical thinking in the social sciences, and to encourage them to explore the ways in which these skills can further their academic and non-academic pursuits. Topics covered may include: various forms of reasoning, common fallacies, the use of rhetoric, elementary logic, and decision and game theories.

SS 233 Quantitative Research Methods**credit 3 hrs.**

This course in research methods prepares the student to understand materials and issues associated with but not limited to the logic of the scientific method, research design, and the collection of quantitative and statistical analysis of data. The course is intended to provide a foundation of knowledge concerning the organization of quantitative data (e.g., tables, graphs). It teaches methods for summarizing and/or describing data with respect to central tendency, dispersion, and association. The class also covers the appropriate use of standard inferential procedures in order to make generalizations from sample data to a larger population and provides an introduction to the use of statistical control and statistical software to perform data analysis.

SS 236 Qualitative Research Methods**credit 3 hrs.**

This course is designed to expose students to qualitative research methodology, from conceptualization, through design and data collection processes, as an applied research methodology for problem investigation, problem solving and evaluation. It includes a thorough discussion of qualitative research design and the role of theory in guiding and informing research design. The course begins with research problems, questions and design considerations. The course follows with training, through lecture, group work and hands-on experiences, in four data collection methods commonly used in qualitative research-observation, interview, focus group and use of documents and archival data. The course is intended to help the student develop the mindset required to think through, design, and execute a qualitative study.

CYBER 235 Law, Social Policy, Digital Ethics, and Compliance**credit 3 hrs.**

This course covers the larger social policy, legal, and compliance issues surrounding information assurance in context and the rules and guidelines that control these issues. The course focuses on federal laws, state laws, US and international standards, the concept of jurisdictions in the digital world, the payment card industry, and BYOD issues. This course reviews how ethical foundations are applied to the networked digitized world. Also discussed is the social impact of cybercrime, diverse ethical dilemmas, and the role of cybersecurity in supporting and encouraging ethics, as well as where cybersecurity practices can cause ethical conflicts. (Cross listed as CYBR 235 and CJA 235)

PSY 330 Human Growth and Development**credit 3 hrs.**

This course provides an integrated study of the human life span from the prenatal period through middle childhood adolescence and the stages of early and late adulthood. Central to the course are the theories, principles, and processes by which change takes place in the physical, cognitive, and affective areas of development. Multicultural issues as they relate to social, educational, and familial factors will be addressed.

SS 330 Writing and Presenting in the Social Sciences**credit 3 hrs.**

Research skills such as identification of problems and solutions, reading academic literature, use of data, and research paper writing and presentation will be covered. The aim of the course is for students in the social sciences and humanities to acquire knowledge and understanding of various types of academic language; furthermore, they should develop the ability and assurance to

communicate, both in writing and orally.

PSY 331 Social Psychology**(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

This course deals with the study of how personality and behavior are influenced by the social context. Topics include socialization, communication, attitudes, interpersonal perception, personal identities, and social interaction. Appropriate for non-majors.

PSY 335 Laboratory in Psychology**credit 3 hrs.**

Research methods and statistical procedures are interrelated in practical exercises. Prerequisites: SSCJ 333 and SSCJ 334.

PSY 336 Theories of Personality**(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

This course provides an overview of the field of personality psychology. Classic and contemporary theoretical Frameworks for understanding personality development are examined, and personality assessment and modern research are covered.

PSY 337 Psychology of the African American Experience**(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

This course examines psychological theory and research as applied to the development of personality, identity, perceptions and attitudes unique to the African American experience.

PSY 338 Applied Psychology**credit 3 hrs.**

This course surveys the practical application of psychological knowledge in various contexts, including clinical, educational, industrial, and family psychology.

PSY 339 Human Sexual Behavior**credit 3 hrs.**

Psychological theory and research on human sexual behavior are covered. Topics include pioneer and current research, gender differences, cultural influences, attitudes and behavior related to sexual functioning and dysfunction, sexual orientation, and sexually aggressive behavior.

PSY 430 Psychological Theory**(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

The foundations of psychological thought are studied through the works of both early and contemporary theorists.

PSY 431 Abnormal Psychology**credit 3 hrs.**

This course is designed to provide an overview of the scientific theories, research, and therapeutic interventions concerning behaviors that have been identified as "abnormal." Various psychological dis-orders are examined and the effect of these disorders on individual adjustment, interpersonal relations, and the society as a whole are addressed.

PSY 432 Cognitive Psychology**credit 3 hrs.**

Theory and empirical research on human information processing and performance are examined. Topics include: attention, perception, learning, memory, reasoning, language, problem solving, and creativity.

PSY 433 Psychology of Health and Medicine**credits 3 hrs.**

This course surveys, from a research-based perspective, the physical, behavioral, and psychological factors that contribute to health risks and diseases. Various behaviors and attitudes that relate to health enhancement, disease prevention, safety, and rehabilitation are identified. The role of the medical profession and issues involved in seeking medical care and adhering to health care regimens also are examined.

PSY 434 Clinical Psychology**credit 3 hrs.**

This course is a survey of clinical practice. Topics include the professional training of clinical practitioners, the techniques of assessment and intervention, and application to family violence, depression, anxiety, and juvenile and criminal offenders.

PSY 435 Advanced Experimental Psychology**credit 3 hrs.**

Various experimental designs and appropriate statistical tests are covered. This course includes both lecture and laboratory exercises.

PSY 436 Psychological Measurements**credit 3 hrs.**

The historical development, critical assessment and current uses of various techniques are covered. Attention is given to measurement of personality, interest, aptitudes, attitudes, intelligence, clinical assessment, and therapeutic outcomes.

PSY 437 Psychology of Alcohol and Drug Use**credit 3 hrs.**

Theory and research of substance abuse is the focus of this course. Topics include prevalence of use, medical consequences, pharmacological effects, physiological and psychological causes and treatment.

PSY 439A Senior Research Project I**credit 3 hrs.**

This is the first of two courses in which the senior research paper will be completed. In this course, students will choose a research topic and write a research paper in APA style, which includes a review of literature and a proposed research design. Students must earn a grade of "C" or higher to matriculate to the next course, Senior Research Project II. Prerequisites: PSY 230, PSY 231, PSY 233, and MATH 132, MATH 134, or MATH 138 and MATH140.

PSY 439C Senior Research Project II**credit 3 hrs.**

This is the second of the two courses in which the senior research paper will be completed. In this course, students will complete the research project begun in the PSY 438 course and must successfully defend their research before a faculty panel. The research paper and defense fulfills the requirement for the senior paper for psychology majors. Prerequisite: PSY 438.

PSY 440 Internship**credit 3 hrs.**

This is a practicum in community psychology. A supervised field experience in an agency applying psychological principles, theory, and research is available to students with advanced standing.

PROGRAM OF STUDY IN PSYCHOLOGY

FRESHMAN YEAR							
First Semester			SCH	Second Semester			SCH
ENG 131	Analysis & Argumentation	3		ENG 132	Information, Literacy & Research	3	
Math 132	General College Math I	3		MATH 134	General College Math II	3	
	Health and Wellness	2		*PSY 222	Afr. American Psychologists	2	
	Elective	3		BIO/CHEM/ESC/PHYS	General Science Lecture	3	
*PSY 230	General Psychology	3		BIO/CHEM/ESC/PHYS	General Science Lab	1	
HIST 130	Intro to Afr. American History	3			Global and Intercultural	3	
HASS 111	The College Experience	1		HASS 112	The College Experience	1	
Total		18		Total		16	
SOPHOMORE YEAR							
First Semester			SCH	Second Semester			SCH
ENG 237	Oral Communication	3		SS 232	Critical Thinking & Logic	3	
*PSY 213	Careers in Psychology	1		*SS 235	Quantitative Research Methods	3	
HASS 221	Professional Pathways Dev	2		PHE 232	Mental Health	3	
*SS 230	Statistics in Social Science	3			Minor Requirement	6	
FR/SP/AR 233	Intermediate Foreign Language	3		PSY	Psy Elective	3	
SOC 339	Cultural Anthropology	3					
Total		15		Total		18	
JUNIOR YEAR							
First Semester			SCH	Second Semester			SCH
*PSY 335	Lab in Psychology	3		*PSY 336	Theory in Personality	3	
*PSY 430	Psychological Theory	3		SS 330	Writing and Presenting in SS	3	
CJA 333	Victimology	3		PSY	PSY Elective	3	
*PSY 331	Social Psychology	3			Minor Requirement	3	
SS 236	Qualitative Research Methods	3			Elective	4	
	Minor Requirement	3					
Total		18		Total		16	
SENIOR YEAR							
First Semester			SCH	Second Semester			SCH
*PSY 439A	Senior Research Project I	3		*PSY 439C	Senior Research Project II	3	
*PSY 431	Abnormal Psychology	3		*SSCJ 440	Internship	3	
PSY	PSY Elective	3		PSY	PSY Elective	3	
	Elective 300-400 level	3			Elective 300-400 level	3	
	Minor Elective	3					
Total		15		Total		12	

Total SCH 128
SCH in Major* 36
*Major courses require a "C" or better.

RELIGION COURSES

REL 120 Comparative Religion credit 2 hrs.

This course is a comparative study of the world's major religions and how they are interrelated. A genuine appreciation of the tenets of each of the religions will be pursued for the purpose of minimizing historical biases in Western thinking regarding non-Christian religions.

REL 230 Principles of Christian Theology**credit 3 hrs.**

This course introduces the student to the nature, purpose, aims, and content of Christian theological reflection. Sources, methodologies, doctrine and major figures and movements will be examined, both in historical and contemporary settings.

REL 331A Old Testament**(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

The course is intended to give the student an appreciation of the literature, history, basic pre-suppositions, and convictions of ancient Israel as they are reflected in the Old Testament. It further seeks to enable the student to make these presuppositions and convictions relevant to contemporary times.

REL 331C New Testament**(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

The course seeks to guide the student toward understanding why Jesus of Nazareth is regarded as the central figure of the movement that produced and is reflected in the New Testament literature. It further seeks to lead the student to an examination of personalities and convictions found in this literature, with an eye toward application relevant to the present. Prerequisite: REL 231.

REL 332 Eighth Century Prophets**credit 3 hrs.**

The course is designed to expose the student to the historical context, convictions, writings, and relevance of the great Hebrew prophets. Particular emphasis is placed on Amos, Hosea, Jeremiah, Micah, and Isaiah. Prerequisite: REL 231.

REL/PHIL 333 Philosophy of Religion**credit 3 hrs.**

This course exposes the student to the historical problems and challenges posed by reason to religious belief systems. The relationship between faith and reason will be explored as it relates to theistic arguments, divine knowledge and human free will, miracles, life after death, the problem of evil, religion and science, and religious diversity.

REL 433 The Synoptic Gospels**credit 3 hrs.**

This course will examine the chronological, historical, and theological interrelationship of the four gospels (known as synoptic). Specific attention will be given to the time, place, and cultural milieu out of which each of the gospel authors wrote with a view to a fuller understanding of their differing theological emphasis regarding the Christ event. Prerequisite: REL 232.

REL 335 Public Worship**credit 3 hrs.**

The course is designed to expose the student to the elements in the construction of and leadership in African American formal service of worship, to examine the shape liturgies, to critique pulpit decorum and practice, and to demonstrate acquired expertise in conducting a worship service.

REL 338 Foundations of Christian Education**credit 3 hrs.**

This course is an overview of the biblical, theological, philosophical and psychological foundations of Christian education in the local church. Primary emphasis is placed on the organization, pedagogical and evaluative dimensions of Christian education ministry at all levels of instruction for the purpose of learning to effectively communicate the church's understanding of the faith.

REL 400 Seminar in Religion**credit 0 hrs.**

This course is offered under the Continuing Theological Education Program as a public relations seminar for pastors and the community in religious education.

REL 430 African American Religious History**credit 3 hrs**

This course examines the religious history of African Americans from their pre-colonial African roots to the contemporary setting. Primary emphasis is given to the religion of the slave and the emergence of the institutional black church for the purpose of providing the student with a foundation for critically assessing the contemporary black church regarding the black liberation struggle.

REL 431 Black Theology**credit 3 hrs.**

This course surveys the origin and development of one of the most controversial theological perspectives in the contemporary period. Primary emphasis will be placed on the historical development in both society and the academy that led to the emergence of a distinctively black theology.

REL 432 The Religious Thoughts of Martin Luther King and Malcolm X credit 3 hrs.

This course surveys the life and religious thoughts of two of America's most influential black leaders. Emphasis will be placed on the formative factors that shaped each man's thought and their understanding of the role religion plays in effectuating human liberation.

REL/PHIL 435 Applied Research credit 3 hrs.

This course facilitates the writing of the Senior Paper. It is required for all Religion/Philosophy majors. Prerequisites: SSCJ 333 and SSCJ 334.

REL 439 Readings in Religion credit 3 hrs.

In this doctoral seminar style course, a classic work(s) author(s) in the field of religion broadly conceived is selected and given a thorough reading for the purpose of honing the pre-theological student's reading comprehension and analytical skills.

SSCJ 439 Special Topics credit 3 hrs.

The course is designed to enable faculty to develop interdisciplinary topics of special interest to them and to their students that are not listed in the regular course offerings. This 400-level elective course may be repeated by departmental permission, provided the topic is different. Prerequisite: graduating senior only.

SSCJ 440 Internship credit 3 hrs.

This course, designed primarily for seniors, allows students to integrate their coursework with the practical challenges of ministry. Students are placed in local churches, hospitals, correctional facilities, community centers and recreational facilities and evaluated by both the faculty coordinator and site supervisor.

SOCIOLOGY COURSE DESCRIPTIONS**SOC 230 Introduction to Sociology****(DESIGNATED SERVICE-LEARNING COURSE)****credits 3 hrs.**

The course is a survey of the scope, methods, and general principles of sociology. Topics emphasized include culture, group behavior, social interaction, inequality, social institutions, and social change.

SOC 232A Ethnic Identity and Race Relations in the Diaspora**(DESIGNATED SERVICE-LEARNING COURSE)****credits 3 hrs.**

This course focuses on the development of ethnic identity as a unique dimension in the development of the social self within a diverse society. Patterns of race relations are examined throughout the African Diaspora including international patterns of structural inequality

SOC 239 Urban Demography**credits 3 hrs.**

This course is designed to introduce the students to the basic areas of demography an urbanization such as; fertility, mortality, migration, population aging, the social dynamic of urbanization, urban social structure, and theories of urban development. Finally, the class introduces the use of demographic analysis for urban problem solving and reviews current issues in the field.

SOC 330 Social Problems**credits 3 hrs.**

This course addresses traditional areas of social problems analysis (i.e., poverty, sexism, racism, child abuse, crime, etc.); however, students are encouraged to place the study of social problems in a broader social system context. Seen from this perspective, emphasis is given to the process by which social problems are constructed within society.

SOC 331 Social Psychology**(DESIGNATED SERVICE-LEARNING COURSE)****credits 3 hrs.**

The study of how personality and behavior are influenced by the social context. Topics include socialization, communication, attitudes, interpersonal perception, personal identities, and social interaction. Appropriate for non-majors. This course is cross-listed with Psy 331.

SOC 332 Sociological Theory**credits 3 hrs.**

The foundations of sociological thought are studied through the works of the early theorists Marx, Durkheim and Weber. African American theorists covered include DuBois, Frazier, William Julius Wilson and Elijah Anderson.

SSCJ 333 Social Science Statistics**credits 3 hrs.**

Statistics is approached as a tool in social research and in applied social sciences. Measures of central tendency and dispersion, probability, tests of significance, and correlation are covered. Prerequisites: Math 132 and Math 134 or Math 138 and Math 140.

SSCJ 334 Research Methods**credits 3 hrs.**

This course will reinforce the scientific methods with emphasis on understanding the basic scientific language/concept learning and potential application, as well as critical evaluation of research. Experimental, observation, and survey research designs are reinforced. Students gain hands-on experience with the steps in the research process. Prerequisite: Math 134 or Math 138 and Math 140

Soc 336A Deviance and Social Control**credits 3 hrs**

Biological, psychological, and sociological theories of causes of deviance are critically examined with a focus on the social construction of categories of crime and the creation of criminality. Both traditional and contemporary forms of deviance are examined with a focus on the relationship between cultural values and the social processes by which deviance is created and dealt with in the United States. The social construction of categories of crime, public concern, media influence, reform movements and solutions to crime are also covered.

SOC 337 Sociology of Family**credits 3 hrs.**

This is a survey course that covers the social and cultural forces that influence the formation and maintenance of social relationships with special attention to marriage and family forms and functioning. Additionally the course will compare social/cultural patterns and implications for individuals, groups and society. The course includes (but is not limited to) a focus on social aspects of relationship formation (male selection), familial roles, parental roles, sexuality, gender, and the life cycle among African Americans.

SOC 339 Cultural Anthropology**credit 3 hrs.**

This survey course focuses on the major concepts, theories and methods employed by anthropologists to understand social and cultural aspects of human experience. The course explores world views and belief systems of different people in their particular contexts. The course explores topics such as religion and ritual, language and symbols, gender and families, individual and cultural identity, power and control, violence, conflict, and social change. The course investigates human diversity and culture through a variety of written and visual descriptions of different groups. The investigation of other cultures helps students become more aware of their own cultural patterns and develop a critical perspective of their own cultural biases.

SOC 433 Applied Research I**credits 3 hrs**

This course provides the student with an opportunity to further develop research skills by conducting research. This is the first of two courses in the development of senior paper. This course is devoted to selection of a research problem, review of literature, and development of measurements.

SOC 434 Applied Research II**credits 3 hrs**

This course is the second part of the senior research project and is devoted to collection and analysis of data, culminating in a final presentation of the senior research paper to the faculty and students.

SOC 435 Medical Sociology**credits 3 hrs.**

This course explores cross-cultural concepts of disease. The organization of medical institutions is examined. Social inequality in health care is also covered.

SOC 436A Technology and Social Change**credits 3 hrs.**

This course examines the theories and models of social change and the social implications of emerging and cutting edge technology with an emphasis on recent developments as they relate to sociology and sociological research. The course investigates social movements, collective behavior, and political change related to technology adoption.

SOC 437 Sociology of Education**credits 3 hrs.**

Sociological analysis of education as a basic institution constitutes the course content. Major emphasis includes the formal and informal organization of educational systems, the relationship of education to socialization and the major trends in education.

SOC 438 Social Stratification**credits 3 hrs.**

This course is an analysis of inequalities of social class in the United States. Topics include distribution of wealth, power, occupational prestige, and occupational mobility. Correlates of class such as educational opportunities, health, and family stability are explored.

SSCJ 439 Special Topics**credit 3 hrs.**

The course is designed to enable faculty to develop interdisciplinary topics of special interest to them and to their students that are not listed in the regular course offerings. This 400-level elective course may be repeated by departmental permission, provided the topic is different. Prerequisite: graduating senior only.

SOC 439A The Sociology of Gender**credits 3 hrs.**

This course is designed to introduce the students to the social definitions of gender and the impact of these definitions on women's and men's lives. Specifically we will examine gender socialization, practices, and inequality in the United States and globally paying particular attention to the influence of gender on interpersonal relationships, family, education, the workplace, and other pertinent areas of social life. Concepts such as feminist theory, human sexuality, power, macro and micro social issues will also be covered.

SSCJ 440 Internship**credits 3 hrs.**

The course requires volunteer work in a state or federal agency. Students may substitute other kinds of practical learning experience, subject to approval of the department chair.

The Bachelor of Arts in Interdisciplinary Studies

The Bachelor of Arts in Interdisciplinary Studies at Benedict College is designed to provide educational opportunities for adults and nontraditional students. Persons from various fields, backgrounds, and employment histories are offered a chance to complete their bachelor's degree. Often a degree for these individuals is necessary in order to obtain employment and to foster career enhancement. The interdisciplinary studies degree exposes students to a plethora of courses and learning experiences that are rooted in interdisciplinary perspectives. Students are allowed the flexibility to develop a course of study that is consistent with, and appropriate to their goals, and career objectives. Part of the conditions for earning the degree is that the student is expected to complete the College's general education requirements, an interdisciplinary core, coursework in at least two disciplines, and a capstone experience. The totality of these experiences and others, prepare candidates for graduation with the essential tools to integrate multiple perspectives in the solution of problems, to think critically, and to articulate the fundamental principles that undergird each discipline and the field of interdisciplinary studies.

COURSE DESCRIPTIONS**CEP 111, 112 and 221 Seminars****credit 4 hrs.**

(Course descriptions are located in the Academic Department Cross-Disciplinary Courses section of the catalogue.)

INTD 320 Argumentation and Debate**credit 2 hrs.**

This course examines techniques for analyzing and constructing arguments.

INTD 330 Academic City**credit 3 hrs.**

This course is designed to present the student with an opportunity to explore a city within the United States or abroad from an interdisciplinary perspective. Attention is given to understanding the political, economical, sociological, and cultural significance of the city. Factors such as climate, race, ethnicity, technology, transportation, population, and education are explored. In addition, challenges and opportunities of the citizenry are explored.

INTD 332 International Exploration in Interdisciplinary Studies**credit 3 hrs.**

This course permits the student to study relationships among people from other lands/countries employing interdisciplinary and interdependent perspectives. With the approval of the course professor, each student will select a city or country and explore the city/country's politics, economics, language, culture, racial and ethnic make-up, population, education, public health, religion, transportation system, technology programs, and so forth.

INTD 333 Foundations of Interdisciplinary Studies**credit 3 hrs.**

This course serves as a gateway to the field of interdisciplinary studies. It provides a comprehensive coverage of the philosophy, research, practices, processes and theories that undergird the field of interdisciplinary studies. (Students can substitute this course for INTD 430).

INTD 334 Introduction to Statistics in Interdisciplinary Studies**credit 3 hrs.**

An introduction to basic statistical concepts and their relationship to research in the solution of problems in social and behavioral sciences.

INTD 337 Professional Public Speaking**credit 3 hrs.**

This course is primarily designed for those students who seek public speaking competency for advancement in their career or public speaking competency as a profession.

INTD 338 Argumentation and Debate in Interdisciplinary Studies**credit 3 hrs.**

This course examines techniques for analyzing and constructing arguments. Attention is given to skills in effective argumentation, analyzing, briefing, evidencing, reasoning, refuting and debating. Vital questions are addressed in a lively and challenging classroom setting.

INTD 340 International Explorations**credit 4 hrs.**

This course permits students to explore a city outside the United States or a country other than the United States from an interdisciplinary perspective. Attention is given to understanding the political and sociological significance of a number of factors that characterize the city or country including weather, socio-economic levels, mix of racial and ethnic groups, technological and transportation infrastructures, opportunities and challenges of the international city/country.

INTD 430 Introduction to Interdisciplinary Studies**credit 3 hrs.**

This course serves as a foundation for students pursuing a major in interdisciplinary studies. It is designed to provide the student with a broad general introduction to the field. Attention is given to the philosophy, research, practices, processes, and theories that undergird the field of interdisciplinary studies. In addition, some of the major characteristics of an interdisciplinarian are reviewed and discussed. (Students can substitute this course for INTD 430).

INTD 431 Contemporary Problems and Issues in Interdisciplinary Studies**credit 3 hrs.**

This course provides opportunities for students to further enhance their research, critical thinking, and reasoning skills by exploring contemporary national and international topics of debate.

INTD 432 Effective Strategies for Intellectual Independence**credit 3 hrs.**

This course is a continuation of INTD 431. This course is designed to further enhance reasoning, critical thinking, and research skills through reading and writing. Under the supervision of the thesis advisor and an instructor with expertise in the appropriate discipline, the students will engage in extensive research culminating in a scholarly research thesis which addresses a current issue. The required senior paper should be incorporated into the scholarly research experience.

INTD 433 Research Strategies and Technology**credit 3 hrs.**

This course incorporates competencies in research methodology and technological literacy. The required electronic portfolio and Senior paper should be incorporated into the scholarly research experience.

INTD 434 Capstone/Internship**credit 3 hrs.**

This course includes the Senior paper and defense, articulation of content area correlation, and electronic portfolio. A draft of the thesis/portfolios must be completed by mid-semester. All thesis/portfolios must be completed and defended prior to graduation.

INTD 435 Introduction to Research in Interdisciplinary Studies**credit 3 hrs.**

An introduction to basic research methods in interdisciplinary studies including research tools, topic selection, data collection, data analysis, technology usage and software applications.

INTD 436 Statistics in Interdisciplinary Studies**credit 3 hrs.**

An introduction to the use of statistical information and the relationship between research and procedures used to analyze research data.

IDS 315 Special Problems**credit 1 hr.**

Open to qualified students to develop a problem solution such as a thesis paper through advanced study under the direction of a member of the faculty.

IDS 326 Special Problems**credit 2 hrs.**

Open to qualified students to develop a problem solution through advanced study under the direction of a member of the faculty.

IDS 3390 Academic Literacy in Interdisciplinary Studies**credit 3 hrs.**

This course is designed to cultivate students' academic writing skills and employ processes and theoretical rationale involved in writing, reading and research. Multiple topics are covered and self-discipline is mandatory regarding attendance, class participation and preparation of this course.

IDS 423 Directed Study**credit 2 hrs.**

Guided and intensive study in a special area of interdisciplinary studies.

IDS 432 Special Problems**credit 3 hrs.**

Open to qualified students to develop a problem solution through advanced study under the direction of a member of the faculty.

IDS 435 Independent Study**credit 3 hrs.**

A course that provides opportunity for students to develop and plan jointly with the course professor individualized projects or experiences which relate to interdisciplinary studies, a major concentration or core, career interests and preparation of the student.

Concentration in Public Safety Administration and Management (PSAM)

Individuals serving in public safety careers focus on the prevention of and protection from events that could endanger the safety of the general public. They are specifically charged with keeping the general public from significant danger, injury/harm, or damage, such as crimes or disasters (natural or manmade). These critical services are typically provided by a core of emergency service agency personnel from emergency medical services, fire department and law enforcement. The administration and management of these services require strategic planning, preparedness strategies, inter-agency coordination and fiscal management skills. There are other agencies and organizations that contribute to the safety of the public as well. They include careers in: animal control, code enforcement, consumer protection, transportation, health services, traffic administration, utility inspection, parking enforcement and many more. The public relies upon these and a variety of other individuals and services to provide general safety and security in everyday life.

The PSAM program concentration is designed for the public safety professional. It will provide the public safety professional with the knowledge and skills necessary to work with the general public, manage change in an organization, create innovation in organizations and utilize communication skills to solve social and organizational problems.

The target audiences for this concentration are the working professionals in emergency management services, fire and rescue services, law enforcement, corrections, homeland security, the armed forces, and other public safety professionals. This concentration focuses on the industry-specific knowledge that the field requires. The PSAM concentration provides the student with the administrative and management skills, knowledge and abilities that are required for career advancement. This concentration is also designed to directly benefit the nontraditional populations and working public safety professionals who are seeking a career or promotional advancement in the public safety industries. The curriculum integrates training in administration, leadership and management applications with a moral and social perspective that prepares the public safety professional to make sound value judgments in their professional and personal lives.

COURSE DESCRIPTIONS**PSA 330 Introduction to Public Safety Administration and Management****credit 3 hrs.**

This course serves as an overview for the field of Public Safety Administration and Management. Attention is given to the administrative, managerial and leadership components of public safety organizations and agencies. Coordinated public safety approaches, 911 world views, ethical foundations, critical thinking, analysis, decision-making, and innovative solutions for pragmatic public safety problems are addressed.

PSA 331 Contemporary Issues and Challenges in Public Safety Administration**credit 3 hrs.**

This course focuses on current challenges, issues and trends in the field of public safety administration and management.

PSA 430 Survey of Public Safety**credit 3 hrs.**

This course provides the student with a broad level of exposure to public safety issues and challenges. Attention is placed upon identifying and determining public needs and providing appropriate service delivery through program research and community input supported by budgeting and funding. Learning will be directed toward a comprehensive service delivery models involving multidisciplinary approaches.

PSA 431 Administrative Law**credit 3 hrs.**

This course examines the workings of administrative agencies and their power to make and enforce rules along with their power to investigate and adjudicate alleged violations. Attention is given to the means by which government administrators interact with these agencies and the constantly changing rules that are promulgated by administration agencies.

PSA 432 Public Finance**credit 3 hrs.**

This course provides the student with a firm understanding of all elements of public finance, from budget development to financial management, and from procurement to accounting and auditing. In addition, the course explores alternative sources of public safety funding available to local entities.

PSAM 330 ProSeminar on Interagency Interoperability, Cooperation, Coordination and Communication**credit 3 hrs.**

This course focuses on the need and ability of emergency responders to work seamlessly with other systems and to share information via voice and data signals on demand, in real time, when needed and as authorized within and across agencies. Attention is given to the emergency responders' ability to respond to catastrophic accidents or disasters and to work effectively together. Attention is also given to the public safety professionals' ability to plan for major predictable events such as super bowl, or in inauguration, or for disaster relief and recovery efforts.

PSAM 331 Computer Applications in Public Safety**credit 3 hrs.**

This course focuses on selected computer applications important to the public safety professional and other current computer applications important to day-to-day functioning (power-point, access, excel, spreadsheets and so forth).

PSAM 332 Ethics in Public Safety**credit 3 hrs.**

Course explores the case issues and philosophies as they relate to personal and professional accountability in the public safety environment.

PSAM 333 Public Safety and Human Resource Management**credit 3 hrs.**

This course examines policies, behavior, and motives affecting recruiting, training evaluations, and current legal issues in human resources as they pertain to the administration and management of public safety personnel.

PSAM 334 Cultural Diversity in Public Safety**credit 3 hrs.**

This course explores the identification and analysis of various cultures and their diverse historical, economic and societal variations within the context of the public safety sector.

PSAM 336 Administration and Management in Public Safety**credit 3 hrs.**

This course looks at the importance of effective planning, organizing, administering and managing every facet of the public safety environment. Attention is given to managing and supervising employees, management and leadership styles and theories.

PSAM 4300 Strategic Planning in the Public Safety Environment**credit 3 hrs.**

Strategic Planning for Public Safety Environment addresses the interests and needs of those currently working as professionals in the public safety arena. Attention is given to the fundamentals of strategic planning, and the application of strategic analysis and planning in the public safety environment. This course introduces the student to the development of strategic plans, the process of determining long term and short-term goals and the management of public safety programs.

PSAM 431 Management and Leadership in Public Safety **credit 3 hrs.**

This course prepares candidates for public service leadership positions. Using readings, case studies, simulations, large and small group instructional strategies, candidates are presented with an array of management and leadership situations to work through with the class. The course enrollees are trained to address some of the most pressing issues regarding public safety facing the general public today and in the future.

PSAM 432 Human and Community Services Delivery **credit 3 hrs.**

This course surveys varying models and applications of public safety service delivery systems deployed throughout the United States.

PSAM 433 Counteracting Terrorism **credit 3 hrs.**

This course explores the current issues, shortcomings in public safety, preparation and proposed solutions strategies to address threats of terrorism in the United States are presented in the course.

PSAM 434 Risk Management in the Public Safety Environment **credit 3 hrs.**

This course helps the students to foresee and manage risk in the public safety environment. The courses focuses on the student being able to plan and analyze likely risks with both high and low impact and to develop mitigating strategies to help avoid being derailed should problems arise.

PSAM 435 Critical Incidents and Cross-Agency Coordination **credit 3 hrs.**

This course develops broad-based contingency planning and strategies, policies, and procedures that coordinate the activities of local, state, and federal agencies in response to critical incidents. Create models of cross-agency coordination that anticipate critical incident response.

PSAM 436 Weapons of Mass Destruction and Disaster Response **credit 3 hrs.**

This course examines all types of weapons of mass destruction and biological and chemical threats and disasters, and how to respond to such incidents. Enhance the enrollees understanding of the National Incident Management System (NIMS) and the Nation's Incident Command System, as well as their role in the response to and management of disasters.

PSAM 437 Computer Forensics **credit 3 hrs.**

This course explores basic approaches to analyzing information systems for evidence of illegal or inappropriate activities, and considers the legal, ethical, and policy implications of using forensic techniques to monitor technology systems.

PSAM 438 America's Homeland Security **credit 3 hrs.**

This course surveys the historical development, creation and purposes of the Department of Homeland Security and the corresponding National Strategy for Homeland Security as well as the effectiveness of such policies within a democracy.

PSAM 439 Senior Capstone for Public Safety Management **credit 3 hrs.**

This capstone course is designed to help the student synthesize the administration and management theories related to public safety and develop a major research paper or a project that is shared with class, the faculty, and a jury of experts.

PROGRAM OF STUDY IN INTERDISCIPLINARY STUDIES

FRESHMAN YEAR						
First Semester			SCH	Second Semester		SCH
ENG 131	Analysis & Argumentation	3		ENG 132	Information, Literacy & Research	3
MATH 132	General College Math I	3		MATH 134	General College Math II	3
BIO/CHEM/ESC/PHYS	General Science Lecture	3		HIST 130	Afr. American History	3
BIO/CHEM/ESC/PHYS	General Science Lab	1		FR/SP/AR 233	Intermediate Foreign Language	3
	Health and Wellness	2			Elective	6
*CSC 131	Introduction to Computers	3				
Total		15		Total		18
SOPHOMORE YEAR						
First Semester			SCH	Second Semester		SCH
ENG 237	Oral Communication	3			Global and Cultural	3
	Global and Intercultural	3		ENG 239	Language, Literacy, & Power	3
INTD 111	The College Experience I	1			Elective	11
	Elective	8				
Total		15		Total		17
JUNIOR YEAR						
First Semester			SCH	Second Semester		SCH
	Foundations of Interdis.				Argumentation and Debate in Interdis. Studies	
*INTD 333/INTD 430	Studies or Intro to Interdis. Studies	3		*INTD 338		3
*IDS 339	Academic Literacy in Interdis. Studies	3		*INTD 334	Intro to Statistics in Interdis. Studies	3
*INTD 337	Professional Public Speaking	3		*INTD 435	Intro to Research in Interdis. Studies	3
INTD 112	The College Experience II	1			Elective	9
ENG 334	Modern English Grammar	3				
	Elective	4				
Total		17		Total		18
SENIOR YEAR						
First Semester			SCH	Second Semester		SCH
*INTD 431	Contemp. Problems & Issues	3		*INTD 434	Capstone/Internship	3
*INTD 433	Research Strategies & Tech.	3			Elective	9
INTD 221	Professional Pathways Dev.	2				
	Elective	8				
Total		16		Total		12

Total SCH 128
SCH in Major* 30

See degree audit sheet for an explanation of the requirements for the core, major, and elective courses.
Interdisciplinary Studies majors will be encouraged to pursue a concentration, minor, or second field in another discipline such as: Applied Computing, Business Administration, Cyber Security, Public Safety, Education, Psychology, etc.
A grade of "C" or better is necessary for any course used to satisfy the requirement of the major, minor, concentration, or second field.
Course substitutions will be permitted with the approval of the student's advisor or program director.

PROGRAM OF STUDY IN INTERDISCIPLINARY STUDIES

Concentration: Business Administration

FRESHMAN YEAR					
First Semester		SCH	Second Semester	SCH	
ENG 131	Analysis & Argumentation	3	ENG 132	Information, Literacy & Research	3
MATH 138	College Algebra	3	MATH 140	Pre Calculus/Business Calculus	4
BIO/CHEM/ESC/PHYS	General Science Lecture	3	HIST 130	Afr. American History	3
BIO/CHEM/ESC/PHYS	General Science Lab	1	FR/SP/AR 233	Intermediate Foreign Language	3
	Health and Wellness	2	*BA 130	Introduction to Business	3
CSC 132	Intro to Computing Concepts	3			
Total		15	Total		16
SOPHOMORE YEAR					
First Semester		SCH	Second Semester	SCH	
ENG 237	Oral Communication	3		Global and Intercultural	3
	Global and Intercultural	3	*EC 231	Microeconomics	3
*EC 230	Macroeconomics	3	*BA 235/MATH 236	Business Statistics/Prob & Stat	3
*BA 230	Business Application Software	3	*BA 237	Business Law	3
*BA 231	Business Communication	3	*ACC 232	Prin of Managerial Accounting	3
*ACC 231	Principles of Accounting	3	SBS 232	Critical Thinking	3
INTD 111	The College Experience	1			
Total		19	Total		18
JUNIOR YEAR					
First Semester		SCH	Second Semester	SCH	
	Foundations of Interdis.				
*INTD 333/INTD 430	Studies or Intro to Interdis. Studies	3	INTD 338	Argumentation and Debate in Interdis. Studies	3
	Academic Literacy in Interdis. Studies				
*IDS 339		3	*INTD 334	Intro to Statistics in Interdis. Studies	3
*INTD 337	Professional Public Speaking	3	*MKT 330	Principles of Marketing	3
INTD 112	The College Experience II	1	*FIN 330	Principles of Finance	3
*BA 330	Quantitative Methods	3	*MGT 330	Principles of Management	3
BA 360/SOC 433/INTD 435	Sen. Proj. I or Applied Research I or Intro to Research in Interdis. Studies	3	ENG 334	Modern English Grammar	3
Total		16	Total		18
SENIOR YEAR					
First Semester		SCH	Second Semester	SCH	
*INTD 431	Contemp. Problems & Issues	3	*INTD 434	Capstone/Internship	3
*INTD 433	Research Strategies & Tech.	3	*MGT 437	Business Policy	3
INTD 221	Professional Pathways Dev.	2		Business Elective	6
BA 433	International Business	3			
*BUS	Business Elective	3			
Total		14	Total		12
Total SCH		128			
SCH in Major*		66			

See degree audit sheet for an explanation of the requirements for the core, major, and elective courses.

A grade of "C" or better is necessary for any course used to satisfy the requirement of the major, minor, concentration, or second field.

Course substitutions will be permitted with the approval of the student's advisor and program's director.

PROGRAM OF STUDY IN INTERDISCIPLINARY STUDIES

Concentration: Public Safety Administration and Management

FRESHMAN YEAR						
First Semester			SCH	Second Semester		SCH
ENG 131	Analysis & Argumentation	3		ENG 132	Information, Literacy & Research	3
MATH 132	General College Math I	3		MATH 134	General College Math II	3
BIO/CHEM/ESC/PHYS	General Science Lecture	3		HIST 130	Afr. American History	3
BIO/CHEM/ESC/PHYS	General Science Lab	1		FR/SP/AR 233	Intermediate Foreign Language	3
	Health and Wellness	2		CSC 131	Introduction to Computers	3
	Elective	3				
Total		15		Total		15
SOPHOMORE YEAR						
First Semester			SCH	Second Semester		SCH
ENG 237	Oral Communication	3			Global and Intercultural	3
	Global and Intercultural	3		ENG 334	Modern English Grammar	3
ENG 239	Language, Literacy, & Pow er	3		INTD 111	The College Experience	1
	Elective	6			Public Safety Elective	6
					Elective	4
Total		15		Total		17
JUNIOR YEAR						
First Semester			SCH	Second Semester		SCH
	Foundations of Interdis.					
*INTD 333/INTD 430	Studies or Intro to Interdis. Studies	3		INTD 435	Intro to Research in Interdis. Studies	3
*IDS 339	Academic Literacy in Interdis. Studies	3		*PSAM 330	Pro Seminar in Interagency, Interoperability , Coord. and Communication	3
INTD 338	Argumentation and Debate in Interdis. Studies	3		*PSAM 331		
*PSA 330	Introduction to Public Safety	3		*PSAM 334	Computer Application in Public Cultural Diversity in Public	3
*PSAM 333/MGT 335	Pub. Safety & HR Mgt or HR Resources Mgt.	3		INTD 337	Professional Public Speaking	3
*INTD 334	Intro to Statistics in Interdis. Studies	3		*INTD 431	Contemp. Problems & Issues	3
INTD 112	The College Experience II	1				
Total		19		Total		18
SENIOR YEAR						
First Semester			SCH	Second Semester		SCH
*PSAM 431	Mgt & Leadership in Pub Safety	3		*INTD 434/PSAM 439	Capstone/Internship or Senior Capstone for Pub Safety	3
*INTD 433	Research Strategies & Tech.	3		MGT 431	Labor Relations	3
INTD 221	Professional Pathw ays Dev.	2		*PSA 431	Administrative Law	3
PSAM	Public Safety Elective	6		*PSAM 433	Counteracting Terrorism	3
					Elective	3
Total		14		Total		15
Total SCH		128				
SCH in Major*		42				

See degree audit sheet for an explanation of the requirements for the core, major, and elective courses.
A grade of "C" or better is necessary for any course used to satisfy the requirement of the major, minor, concentration, or second field.
Course substitutions will be permitted with the approval of the student's advisor and program's director.

PROGRAM OF STUDY IN INTERDISCIPLINARY STUDIES

MINOR: Entrepreneurship

FRESHMAN YEAR							
First Semester		SCH		Second Semester		SCH	
ENG 131	Analysis & Argumentation	3		ENG 132	Information, Literacy & Research	3	
MATH 132	General College Math I	3		MATH 134	General College Math II	3	
BIO/CHEM/ESC/PHYS	General Science Lecture	3		HIST 130	Afr. American History	3	
BIO/CHEM/ESC/PHYS	General Science Lab	1		FR/SP/AR 233	Intermediate Foreign Language	3	
	Health and Wellness	2					
CSC 131	Introduction to Computers	3					
Total		15		Total		12	
SOPHOMORE YEAR							
First Semester		SCH		Second Semester		SCH	
ENG 237	Oral Communication	3			Global and Intercultural	3	
	Global and Intercultural	3		ENG 239	Language, Literacy, & Power	3	
*MGT 338	Entrepreneurship	3			Elective	12	
ENG 334	Modern English Grammar	3					
	Elective	6					
INTD 111	The College Experience I	1					
Total		19		Total		18	
JUNIOR YEAR							
First Semester		SCH		Second Semester		SCH	
*INTD 333/INTD 430	Foundations of Interdis. Studies or Intro to Interdis. Studies	3		*INTD 338	Argumentation and Debate in Interdis. Studies	3	
*IDS 339	Academic Literacy in Interdis. Studies	3		*INTD 334	Intro to Statistics in Interdis. Studies	3	
				*INTD 435	Intro to Research in Interdis. Studies	3	
*INTD 337	Professional Public Speaking	3		*MGT 339	Ethical, Legal, & Environmental Considerations	3	
*MGT 341	Strategic Mgt & Accounting for Entrepreneurs	3			Elective	6	
CSC 239	Introduction to Multimedia	3					
INTD 112	The College Experience II	1					
Total		16		Total		18	
SENIOR YEAR							
First Semester		SCH		Second Semester		SCH	
*INTD 431	Contemp. Problems & Issues	3		*INTD 434	Capstone/Internship	3	
*INTD 433	Research Strategies & Tech.	3		*MGT 339/431/432	Internet Mkt or Personal Selling or Negotiation Fund.	3	
*MGT 342	Funding Sources for Entrepren.	3			Elective	8	
INTD 221	Professional Pathways Dev.	2					
	Elective	5					
Total		16		Total		14	
Total SCH		128					
SCH in Major*		42					

See degree audit sheet for an explanation of the requirements for the core, major, and elective courses.

A grade of "C" or better is necessary for any course used to satisfy the requirement of the major, minor, concentration, or second field.

Course substitutions will be permitted with the approval of the student's advisor and program's director.

PROGRAM OF STUDY IN INTERDISCIPLINARY STUDIES

MINOR: Education

FRESHMAN YEAR						
First Semester			SCH	Second Semester	SCH	
ENG 131	Analysis & Argumentation	3		ENG 132	Information, Literacy & Research	3
MATH 132	General College Math I	3		MATH 134	General College Math II	3
BIO/CHEM/ESC/PHYS	General Science Lecture	3		HIST 130	Afr. American History	3
BIO/CHEM/ESC/PHYS	General Science Lab	1		FR/SP/AR 233	Intermediate Foreign Language	3
	Health and Wellness	2		*ED 130	Hist/Phil Foundations of Educ.	3
CSC 131	Introduction to Computers	3				
Total		15		Total		15
SOPHOMORE YEAR						
First Semester			SCH	Second Semester	SCH	
ENG 237	Oral Communication	3			Global and Intercultural	3
	Global and Intercultural	3		ENG 239	Language, Literacy, & Power	3
*EDU 230	Human Growth and Dev.	3			Elective	12
ENG 334	Modern English Grammar	3				
	Elective	6				
INTD 111	The College Experience I	1				
Total		19		Total		18
JUNIOR YEAR						
First Semester			SCH	Second Semester	SCH	
	Foundations of Interdis.				Argumentation and Debate in	
*INTD 333/INTD 430	Studies or Intro to Interdis. Studies	3		*INTD 338	Interdis. Studies	3
*IDS 339	Academic Literacy in Interdis. Studies	3		*INTD 334	Intro to Statistics in Interdis. Studies	3
				*INTD 435	Intro to Research in Interdis. Studies	3
*INTD 337	Professional Public Speaking	3			Creating Culturally Relevant Classrooms	3
*EDSE 330	The Exceptional Child	3		*ED 230	Elective	6
CSC 239	Introduction to Multimedia	3				
INTD 112	The College Experience	1				
Total		16		Total		18
SENIOR YEAR						
First Semester			SCH	Second Semester	SCH	
*INTD 431	Contemp. Problems & Issues	3		*INTD 434	Capstone/Internship	3
*INTD 433	Research Strategies & Tech.	3			Elective	9
*EDU 337	Diversity, Soc. Justice and 21st Century Learner	3				
INTD 221	Professional Pathways Dev.	2				
	Elective	4				
Total		15		Total		12
Total SCH			128			
SCH in Major*			42			

See degree audit sheet for an explanation of the requirements for the core, major, and elective courses.
A grade of "C" or better is necessary for any course used to satisfy the requirement of the major, minor, concentration, or second field.
Course substitutions will be permitted with the approval of the student's advisor and program's director.

PROGRAM OF STUDY IN INTERDISCIPLINARY STUDIES
MINOR: Child and Family Development

FRESHMAN YEAR					
First Semester		SCH	Second Semester	SCH	
ENG 131	Analysis & Argumentation	3	ENG 132	Information, Literacy & Research	3
MATH 132	General College Math I	3	MATH 134	General College Math II	3
BIO/CHEM/ESC/PHYS	General Science Lecture	3	HIST 130	Afr. American History	3
BIO/CHEM/ESC/PHYS	General Science Lab	1	FR/SP/AR 233	Intermediate Foreign Language	3
	Health and Wellness	2		Elective	6
CSC 131	Introduction to Computers	3			
Total		15	Total		18
SOPHOMORE YEAR					
First Semester		SCH	Second Semester	SCH	
ENG 237	Oral Communication	3		Global and Intercultural	3
	Global and Intercultural	3	ENG 230	Advanced Composition	3
*EDU 230	Human Growth and Dev.	3	*CFD 230	Intro to Early Childhood	3
ENG 334	Modern English Grammar	3		Elective	9
	Elective	6			
INTD 111	The College Experience I	1			
Total		19	Total		18
JUNIOR YEAR					
First Semester		SCH	Second Semester	SCH	
	Foundations of Interdis.			Argumentation and Debate in Interdis. Studies	
*INTD 333/INTD 430	Studies or Intro to Interdis. Studies	3	*INTD 338		3
	Academic Literacy in Interdis. Studies			Intro to Statistics in Interdis. Studies	
*IDS 339		3	*INTD 334		3
	Professional Public Speaking		*INTD 435	Intro to Research in Interdis. Studies	3
*CFD 333	Marriage & Family Relationships	3	*CFD 334	Parent Edu. and Guidelines	3
INTD 112	The College Experience II	2		Elective	6
Total		14	Total		18
SENIOR YEAR					
First Semester		SCH	Second Semester	SCH	
*INTD 431	Contemp. Problems & Issues	3	*INTD 434	Capstone/Internship	3
*INTD 433	Research Strategies & Tech.	3	INTD 221	Professional Pathways Dev.	2
*EDU 337	Diversity, Soc. Justice and 21st Century Learner	3		Elective	8
	Elective	5			
Total		14	Total		13
Total SCH		129			
SCH in Major*		42			

See degree audit sheet for an explanation of the requirements for the core, major, and elective courses.
A grade of "C" or better is necessary for any course used to satisfy the requirement of the major, minor, concentration, or second field.
Course substitutions will be permitted with the approval of the student's advisor and program's director.

PROGRAM OF STUDY IN INTERDISCIPLINARY STUDIES

MINOR Applied Computing

FRESHMAN YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
ENG 131	Analysis & Argumentation	3	ENG 132	Information, Literacy &	3
MATH 132	General College Math I	3	MATH 134	General College Math II	3
BIO/CHEM/ESC/PHYS	General Science Lecture	3	HIST 130	Afr. American History	3
BIO/CHEM/ESC/PHYS	General Science Lab	1	FR/SP/AR 233	Intermediate Foreign Language	3
	Health and Wellness	2		Elective	6
*CSC 131	Intro to Computers	3			
Total		15	Total		18

SOPHOMORE YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
ENG 237	Oral Communication	3		Global and Intercultural	3
*CSC 239	Intro to Multimedia	3	*ENG 239	Language, Literacy, and Power	3
	Elective	9	CEP 320	Elective	12
INTD 111	The College Experience I	1			
Total		16	Total		18

JUNIOR YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
	Foundations of Interdis.			Argumentation and Debate in	
*INTD 333/INTD 430	Studies or Intro to Interdis. Studies	3	*INTD 338	Interdis. Studies	3
*IDS 339	Academic Literacy in Interdis. Studies	3	*INTD 334	Intro to Statistics in INTD	3
*INTD 337	Professional Public Speaking	3	*INTD 435	Intro to Research in INTD	3
*MGT 332	Business Information	3	*MKT 339	Internet Marketing	3
*ENG 334	Modern English Grammar	3		Elective	6
INTD 112	The College Experience II	1			
Total		16	Total		18

SENIOR YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
*INTD 431	Contemp. Problems & Issues	3	*INTD 434	Capstone/Internship	3
*INTD 433	Research Strategies and Tech.	3	*MASS 431	Digital Imaging Technology	3
*CSC 335/CSC 434	File Organization and Proc or Database Mgt.	3		Elective	8
INTD 221	Professional Pathways Dev.	2			
	Elective	2			
Total		13	Total		14

Total SCH 128

SCH in Major* 48

See degree audit sheet for an explanation of the requirements for the core, major, and elective courses.

A grade of "C" or better is necessary for any course used to satisfy the requirement of the major, minor, concentration, or second field.

Course substitutions will be permitted with the approval of the student's advisor and program's director.

BIOLOGY CHEMISTRY, AND ENVIRONMENTAL HEALTH SCIENCES DEPARTMENT**COURSES FOR SCIENCE, TECHNOLOGY, AND ENGINEERING MAJORS****SCI 221 Professional Pathways Development in Chemical Science credit 2 hrs.**

This course is designed to provide the students with career guidance and an overview of current trends in chemical science. Topics for professions in teaching, research, industry, and health care will be explored. Students will search industries, local employers, job titles, and job sites for employment opportunities and required preparation for specific careers in chemical sciences.

SCI 222 Professional Pathways Development in EHS credit 2 hrs.

This course is designed to provide the students with career guidance and an overview of current trends in environmental health science. Topics for professions in teaching, research, industry, and health care will be explored. Students will search industries, local employers, job titles, and job sites for employment opportunities and required preparation for specific careers in environmental health science.

SCI 230 Biomedical Research Techniques credit 3 hrs.

This course presents a variety of scientific laboratory techniques in a problem-oriented laboratory setting. Among the topics to be covered are laboratory safety, humane use of animals, accurate measurement of volumes and weights, and various techniques involving the understanding of proteins and nucleic acids. The course provides an overview of the current literature, experimental design, statistical analysis, and publication preparation. Prerequisite: BIO 137, BIO 117L, BIO 138, BIO 118L, or Permission of the Instructor.

SCI 238 Undergraduate Research in Biology credit 3 hrs.

This course is designed to enhance the undergraduate curriculum in biology by providing students with the opportunity to engage in the discussion and analysis of research topics from peer-reviewed journals. Research topics will range from global warming, gene therapy, to molecular biology. Prerequisites: BIO 137, BIO 117L, BIO 138, BIO 118L, or Permission of the Instructor.

SCI 330 Methods and Materials for Teaching Science credit 3 hrs.

The course is designed to present the methodologies of teaching sciences in secondary schools. Consideration is given to the organization of course content and emphasis is placed on methods and materials which provide for differentiated instruction. Methodologies and strategies for teaching the handicapped are included with emphasis on teaching reading. The selection, utilization, production, and evaluation of audio-visual materials and selected technological aids are also stressed. Required for science teaching majors. Twenty (20) hours of practicum are and three (3) 1-hour lecture periods are required. Prerequisite: Permission of the Instructor.

SCI 424 Special Topics in Biology credit 2 hrs.

Study and discussion of selected topics in biology. Content will vary, as this course is a means for classes to explore certain biology-related topics in depth. Classes may be taught by visiting professors. Prerequisite: BIO 137, BIO117L, BIO 138, BIO 118L, or Permission of the Instructor.

STEM 130 History of Biology credit 3 hrs.

This course examines the development of biology in society. The course will cover the earliest scientific ideas, progressing to the state of biology in the modern era and beyond. A philosophical analysis of the advances, functions, and implications of biology in society is used to study how biology has changed over time, and how these changes have influenced our world. The discussion addresses issues such as societal attitudes toward science, the achievements of key scientists, and the effect on future generations of today's social policies regarding science.

STEM 131 Critical Thinking in Biology credit 3 hrs.

The course is designed to introduce students to elements of critical thinking in biology. The course will include papers and review articles demonstrating how critical thinking works. Students will serve as discussion leaders critically evaluating a scientific paper on a particular topic. The goals of the course are to help students understand what they are reading and presenting, and to deepen their understanding of materials presented through discussion and by formulating questions. Students will also learn how to think inductively and deductively in formulating hypotheses/questions from the material presented, while designing experimental approaches with controls, and considering the ramifications of both positive and negative results of questions. This is critical in building a way of

thinking that will help students to achieve a perspective in biology from which they could build in the future.

STEM 133 Science and Religion**credit 3 hrs.**

The contemporary debate on intelligent design and stem cell research demonstrate that the age-old debate between science and religion is still very much still alive. This course will examine fundamental philosophical, ethical and historical questions between religion and science. The course will examine ways in which Western and non-Western religions and science collide, coexist and influence each other.

STEM 225 Professional Pathways Development in Biological Sciences **credit 2 hrs.**

This course is designed to provide the students with career guidance and an overview of current trends in biological sciences. Topics for professions in teaching, research, industry, and health care will be explored. Students will search industries, local employers, job titles, and job sites for employment opportunities and required preparation for specific careers in biological sciences.

STEM 230 Scientific Writing**credit 3 hrs.**

This course is an orientation to the use of scientific literature and scientific writing. Topics to be covered include computerized literature searches and the preparation of bibliographies, use of abstracts and indices, reading and summarizing scientific literature, and preparation of scientific manuscripts including lab reports, research papers and journal articles in correct scientific form. Students will be trained in the use of word-processing, computer data base search, and the use of technologies as higher order thinking and problem-solving skills. Prerequisites: ENG 1310, and one of the listed courses from student's program of study - BIO 137, BIO 117L, and ENG 131, or Permission of the Instructor.

STEM 233 Introduction to Data and Graph Analysis**credit 3 hrs.**

This course will cover the basic principles, methods, logic and the language of statistics relevant to the fields of science, technology, engineering and mathematics. Many of the topics will be selected from health-related areas. Topics will include introduction to statistics and probability. Students will use technology and become familiar with analyzing data using statistical software packages. Prerequisite: MATH 140.

STEM 331 Ethics in Science**credit 3 hrs.**

Ethics in Science aims to provide formal training in the ethical questions and problems that arise in scientific and professional environments. Emphasis will be placed on reasoning through conflicts and arguments through discussion, written assignments, and oral presentations. Prerequisites: BIO 137, BIO 117L, BIO 138, BIO 118L, or Permission of the Instructor.

STEM 337 Biology and Human Behavior**credit 3 hrs.**

Biology and Human Behavior is designed to help understand the complexity of the human experience. A select set of theories that understand how individuals and communities develop and interact. The course will focus on key biological theories that explore the brain, body and environment that help to understand the dimensions and expression of human behavior at different stages of human development. Prerequisites: BIO 137, BIO 138, BIO 138, BIO 118L, or Permission of the Instructor.

STEM 328 Career Entrance Exams Preparation**credit 2 hrs.**

This will be a team-taught course for biology majors. The course content will include senior Exit Exam, GRE, DAT, MCAT and other standardized exam preparation activities. The course is designed to strengthen the knowledge base in the sub score areas and assessment indicator items on these standardized examinations and will prepare the students for their career placement after graduation. Prerequisites: BIO 137, BIO 117L, BIO 138, BIO 118L, or Permission of the Instructor.

BIOLOGY COURSES**STEM 111 and STEM 112 The College Experience I and II****credit 1 hr. each****BIO 130 General Biology****credit 3 hrs.**

General Biology is an integrated service course in the biological sciences including botany and zoology. Topics include taxonomy, anatomy, physiology, genetics, and ecology. This course does not count for credit toward the Biology major requirements. Science majors should take BIO 137 and BIO 117L and

BIO 138 and BIO 118L.

BIO 110L General Biology Lab**credit 1 hr.**

General Biology Lab is an integrated hands-on service course in the biological sciences. Topics include lab safety, metric system, scientific method, study of chemical reactions, microscopy, study of cell structure and function, study of mitosis in animal and plant cells, taxonomy, genetics, and dissection of animal and plant specimens. This course runs concurrently with General Biology lecture (BIO 130). This course does not count for credit toward biology major requirements. Two laboratory hours per week.

BIO 137 Principles of Biology I**credit 3 hrs.**

This course is an introduction to the study of biology and is intended for biology majors. Basic principles common to all living things are emphasized. Topics covered include: scientific method, the chemical basis of life, cell theory, genetics, heredity, ecology and natural selection. Three 1-hour lecture periods. Grade of "C" or above required.

BIO 117L Principles of Biology I Laboratory**credit 1 hr.**

This course is an introduction to the biology laboratory including laboratory safety, scientific methodology, measurement techniques and analysis, basic life chemistry, cell structure and function, fundamentals of heredity, taxonomy and the diversity of life. Weekly laboratory reports and a lab final are included. Three laboratory hours per week. Grade of "C" or above required.

BIO 138 Principles of Biology II**(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

A continuation of Principles of Biology I. Topics covered include: prokaryotic and eukaryotic metabolic pathways, the anatomy and physiology of organ systems in plants and animals, and evolutionary patterns in the Metaphyta and Metazoa. Prerequisites: BIO 137 and BIO 117L. Grade of "C" or above required.

BIO 118L Principles of Biology II Laboratory**credit 1 hr.**

A continuation of BIO 117L. Topics include photosynthesis, nutrition, gas exchange, internal transport, neurons and neural control, chemical control and ecology. Weekly laboratory reports and a lab final are included. Prerequisite: BIO 1170L. Three laboratory hours per week. Grade of "C" or above required.

BIO 212 Medical Terminology**credit 1 hr.**

This course is designed to increase students' knowledge and usage of medical and scientific terminology by examining stems, prefixes, and suffixes. One hour per week. Grade of "C" or above required.

BIO 233 Human Anatomy and Physiology I**credit 3 hrs.**

The structural and functional characteristics of the human ten-organ system are covered. Basic concepts of the human body are presented to non-science majors. Principal topics covered include levels of organization, support, movement, and integration. Three 1-hour lecture periods. This course does not count as a biology elective for biology major or minor requirements. Prerequisites: BIO 130 and BIO 110L or Permission of the Instructor. Grade of "C" or above required.

BIO 234 Human Anatomy and Physiology II**credit 3 hrs.**

A continuation of Human Anatomy and Physiology I. Topics covered include coordination, processing, transportation, and reproduction. Three 1-hour lecture periods. This course does not count as a biology elective for biology majors or minors. Prerequisite: BIO 233 with a grade of "C" or better. Grade of "C" or above required.

BIO 238 Genetics**credit 3 hrs.**

An introduction to transmission and biochemical genetics is presented. Selected topics in population genetics are treated. Emphasis is placed on aspects of genetics which relate to human health and to current social issues. Prerequisite: BIO 138. Grade of "C" or above required.

BIO 218L Genetics Lab**(DESIGNATED SERVICE –LEARNING COURSE)****credit 1 hr.**

This course provides hands-on laboratory experience in genetic probability, DNA extraction and agarose gel electrophoresis, human fingerprinting patterns, bacteria mutagenesis, genetic drift, and applied human genetics. Laboratory safety is reviewed. Submission of two formal laboratory reports is required for this course. Both classical and modern-day genetic techniques will be used. Prerequisite: BIO 118L. Three laboratory hours per week. Grade of "C" or above required.

BIO 239 Botany**credit 3 hrs.**

This course introduces the classification, relationships, structure, and function of plants. Topics include structure and function of plant cells, tissues, and organs such as roots, stems, leaves, and flowers, reproduction and development of seed and non-seed plants, levels of organization, form and function of systems. Upon completion, students should be able to demonstrate comprehension of plant form and function, including both seed and non-seed plants. Prerequisites: BIO 137, BIO 117L, BIO 138, BIO 118L, or Permission of the Instructor. Grade of "C" or above required.

BIO 219L Botany Lab**credit 3 hrs.**

The laboratory will focus on the evolutionary relationships among different plant families, learning of key characteristics to aid in plant identification, and understanding the economic/medicinal/cultural/agricultural importance of specific plant groups. Lab will include plant growth regulation, plant hormones, plant embryos and seed plant body. Three laboratory hours per week. Prerequisites: BIO 137, BIO 117L, BIO 138, BIO 118L, or Permission of the Instructor. Grade of "C" or above required.

BIO 240 Biotechnology Lab/Lecture**credit 4 hrs.**

This combined course will integrate hands-on biotechnology laboratory experience with a lecture component that will include research in the field. Topics covered include pharmaceutical development, medical treatments, agricultural advances, food processing, and diagnostic tests for diagnosing cancers and other diseases. Prerequisites: BIO 137, BIO 117L, BIO 138, BIO 118L, or Permission of the Instructor. Grade of "C" or above required.

BIO 330 Evolution**credit 3 hrs.**

This course is a study of the theory of evolution and of the processes involved. The development of the concept of evolution and its influence on other aspects of science are emphasized. Theories concerning the origin of life and the organisms found in geological periods are included. Basic concepts of population genetics will be introduced. Prerequisites: BIO 138 and BIO 118L or Permission of the Instructor. Grade of "C" or above required.

BIO 331 Comparative Anatomy**credit 3 hrs.**

The structural, functional, and phylogenetic relationships among chordates are presented using representative examples. Emphasis is focused on the taxonomy, integument, skeletal, muscular and nervous systems of vertebrates. Prerequisites: BIO 138 and BIO 118L. Three 1-hour lectures per week. Grade of "C" or above required.

BIO 311L Comparative Anatomy Lab**credit 1 hr.**

The structural, functional, and phylogenetic relationships among chordates are presented using representative specimens, microscopy, models, and dissection. Emphasis is focused on the taxonomy, integument, skeletal, muscular and nervous systems of vertebrates. Three laboratory hours per week. Prerequisite: BIO 118L. Grade of "C" or above required.

BIO 332 Immunology**credit 3 hrs.**

This course is designed to introduce the principles of immunology including: development of the immune system, innate immunity, immunoglobulin structure and genetics, antigen-antibody reactions, the major histocompatibility complex reactions and antigen presentation, T cell receptors (genetics, structure, selection), T cell activation and effector functions, energy and apoptosis, cytokines, phagocytic cell function, immune responses to infectious organisms and tumors, autoimmune diseases, autoimmunity, allergies, and immune deficiencies. Prerequisites: BIO 137, BIO 117L, BIO 138L, BIO 118L, or Permission of the Instructor. Grade of "C" or above required.

BIO 312L Immunology Lab**credit 1 hr.**

This laboratory course is designed to help students become familiar with and proficient in the performance of protocols in cellular immunology, immunochemistry and clinical serology. These experiments are designed to introduce the student to the fundamentals of laboratory work in the field of immunology. The laboratory experience is designed to closely reflect that of a modern immunology lab. Three laboratory hours per week. Prerequisites: BIO 137, BIO 117L, BIO 118L, BIO 138, or permission of the Instructor. Grade of "C" or above required.

BIO 3330 Ecology**credit 3 hrs.**

The course studies the relationship between organisms and their environment with emphasis on climatic, edaphic, physiologic, and biotic principles. Applications to human welfare and environmental medicine are considered. Grade of "C" or above required.

BIO 313L Ecology Lab**credit 1 hr.**

This course presents field and laboratory methods related to a variety of ecological measurements. Experimental results are integrated with ecological principles and the literature. One 3-hour laboratory period. Prerequisites: BIO 138 and BIO 118L. Three laboratory hours per week. Grade of "C" or above required.

BIO 332 Invertebrate Zoology**credit 3 hrs.**

This course presents a comparison of representatives of the major invertebrate animal phyla with emphasis on anatomy, physiology, life style, and life histories. Prerequisites: BIO 138 and BIO 118L. Grade of "C" or above required.

BIO 312L Invertebrate Zoology Lab**credit 1 hr.**

This course consists of laboratory experiments conducted to learn collection techniques routinely used in population and taxonomic studies to acquire experience in utilizing taxonomic keys and to conduct field and laboratory studies. Three laboratory hours per week. Grade of "C" or above required.

BIO 334 Vertebrate Embryology**credit 3 hrs.**

The processes of vertebrate development, emphasizing human development, are studied. Lecture and laboratory sessions cover gametogenesis, fertilization, cleavage, histogenesis, organogenesis, placentation, and delivery. Endocrine regulation of reproduction is stressed. Laboratories us frog, chick, and pig embryos. Relevant medical and social issues are analyzed. Prerequisites: BIO 138 and BIO 118L. Grade of "C" or above required.

BIO 314L Vertebrate Embryology Lab**credit 1 hr.**

This laboratory complements the lecture with a comparison of frog, chick, and pig embryos. Histological, preserved, and selected living materials are studied to illustrate gametogenesis, fertilization, and development of the vertebrate embryo from zygote through the differentiation of organ systems in amphibian, avian and mammalian embryos. Three laboratory hours per week. Grade of "C" or above required.

BIO 335 Principles of Human Anatomy and Physiology I**credit 3 hrs.**

This course is the first semester of the two-semester course sequence, BIO 335 and emphasizes physiology of body tissues and systems and includes relevant aspects of anatomy and histology. The course is for majors and intended to be an alternative BIO 233. It covers the following topics and systems of the human organism: human structural and functional organization, basic chemistry, cell structure and function and transport, foundations of cell metabolism, histology, the integumentary system, the skeletal system, the muscular system, the nervous system, and special senses. The subject matter will be related to clinical and health-related issues. Prerequisites: BIO 137, BIO 117L, BIO 138, BIO 118L, CHEM 137, CHEM 117L, CHEM 138, CHEM 118L. Grade of "C" or above required.

BIO 315L Principles of Human Anatomy and Physiology I Lab**credit 1 hr.**

The first semester of a two-semester laboratory sequence, the laboratory is a hands-on experience designed to complement the lectures. Three laboratory hours per week. Grade of "C" or above required.

BIO 336 Principles of Human Anatomy and Physiology II**credit 3 hrs.**

The second semester of the two-semester course sequence, BIO 336, this course applies essential concepts from BIO 335. It is for majors. It covers the following topics and systems of the human organism: endocrine system, cardiovascular system, lymphatic system and immunity, respiratory system, digestive system, urinary system, and reproduction and development system. The subject matter will be related to clinical and health-related issues. Prerequisites: BIO 137, BIO 117L, BIO 138, BIO 118L, CHEM 137, CHEM 117L, CHEM 138, CHEM 118L, BIO 335, BIO 315L. Grade of "C" or above required.

BIO 316L Principles of Human Anatomy and Physiology II Lab**credit 1 hr.**

The second semester of a two-semester laboratory sequence, the laboratory is a hands-on experience designed to complement the lectures. Three laboratory hours per week. Grade of "C" or above required.

BIO 337 Nutrition**credit 3 hrs.**

Nutrients and their physiological and biochemical utilization by the human body are studied.

National and international perspectives are included in three 1-hour lecture periods. Prerequisites: BIO138 and BIO 118L. Grade of "C" or above required.

BIO 339 Microbiology**credit 3 hrs.**

Structural, cultural, and physiological characteristics of microorganisms and their role in health and nature are treated. The principles of immunology and virology are also discussed. Prerequisites: BIO 138, BIO 118L, CHEM 138, and CHEM 118L. Grade of "C" or above required.

BIO 319L Microbiology Lab**(DESIGNATED SERVICE-LEARNING COURSE)****credit 1 hr.**

This course consists of laboratory experiments conducted to familiarize students with basic skills required to work with different bacterial strains. Subjects will include aseptic techniques, types of media, microscopy, pure culture isolation, and staining to identify bacteria. Students will isolate and grow pure culture of *E. coli* by using selective media. They will also identify and characterize bacteria by differential staining. Three laboratory hours per week. Grade of "C" or above required.

BIO 340 Histology Lab/Lecture**credit 4 hrs.**

The lab-based learning course in histology will include an integrated hands-on microscopic study of tissues and tissue organization of organs in relation to their function using light microscopy. Hands-on tissue preparation for microscopic study, histochemistry, staining and staining technology will be performed. This pedagogy of lab/lecture activities will be used in this course. Prerequisites: BIO 137, BIO 117L, BIO 138, BIO 110L, or Permission of the Instructor. Grade of "C" or above required.

BIO 421 Senior Research in Biology I**credit 2 hrs.**

This is the first of two courses in the student research sequence. Students will develop a research project under the direction of a faculty member. This course will focus on a literature review, developing a research plan, laboratory research and interpreting results. Prerequisites: BIO 1380, and STEM 2300 or SCI 2300. Grade of "C" or above required.

BIO 422 Senior Research in Biology II**credit 2 hrs.**

This is the second of two courses in the student research sequence. Students will continue to work on their research project under the direction of a faculty member from the previous semester. This will include completing their research project and formulating conclusions. A senior research paper using standard APA style writing format followed by an oral presentation to the faculty is required. Prerequisite: BIO 421. Grade of "C" or above required.

BIO 432 Cell Biology**credit 3 hrs.**

A comprehensive study of the structure and function of living cells is made. Topics included are cell organization; the physical and chemical components of the cell; methods for the study of the cell; cell metabolism; cytogenetics; and the molecular biology of the cell (nucleic acid structure and function, protein synthesis, mutation, gene expression, gene regulation). Prerequisites: BIO 138, BIO 118L, CHEM 138, and CHEM 138L. Grade of "C" or above required.

BIO 412L Cell Biology Lab**credit 1 hr.**

This lab is an introductory course in biosciences research. Students learn to splice DNA, conduct DNA electrophoresis, transform bacteria, use a light microscope, work with solutions, dilutions, and pipet-tors, plot real data, keep a laboratory record, and document methodology. Three laboratory hours per week. Grade of "C" or above required.

BIO 434 Plant Physiology**credit 3 hrs.**

The principle functions of the green plants, including photosynthesis, gas exchange, and water and environmental responses are presented. Prerequisites: BIO 138, BIO 118L, CHEM 138, and CHEM 118L. Grade of "C" or above required.

BIO 414L Plant Physiology Lab**credit 1 hr.**

This lab is an introduction to basic principles of growth of plant systems designed to stimulate student learning of basic concepts and appreciation of the plant world upon which humans depend. Students will learn physical processes in plants, functions of plant tissues, metabolism, and growth and development. They will test nutrients found in plants such as in germinating seeds and flowers. Three laboratory hours per week. Grade of "C" or above required.

BIO 435 Vertebrate Physiology**credit 3 hrs.**

Basic functions of the vertebrate body are studied in terms of physical and chemical principles. The important functions of the circulatory, digestive, respiratory, glandular, muscular, nervous, and

reproductive systems are discussed. Three 1-hour lecture periods. Prerequisites: BIO 138, BIO 118L, CHEM 138, CHEM 118L, and PHYS 241. Grade of "C" or above required.

BIO 415L Vertebrate Physiology Lab**credit 1 hr.**

Basic functions of the vertebrate body are studied in terms of physiological and chemical principles. The laboratory is a hands-on experience designed to complement the lectures. Experiments are conducted on the following: cellular events; muscular system; cardiovascular system; urinary system; digestive system; respiratory system; endocrine system; skeletal system; glandular system; nervous system; reproductive systems; cellular metabolism; immune system; and electrolyte balance. Three laboratory hours per week. Prerequisites: BIO 118L and CHEM 218L. Grade of "C" or above required.

BIO 438 Cell and Molecular Biology**credit 3 hrs.**

This course is a comprehensive study of the structure and function of cells, including biochemistry and molecular approaches. Topics to be covered include cellular organization, metabolism, nucleic acid structure and function, protein synthesis, gene expression, and regulation. Prerequisites: BIO 138, BIO 118L, BIO 238, BIO 218L, CHEM 238, and CHEM 218L. An honors section is offered. Grade of "C" or above required.

BIO 418L Cell and Molecular Biology Lab**credit 1 hr.**

This laboratory provides hands-on laboratory experience in differential ultracentrifugation, protein assays and linear least-squares analysis, anatomy and evolution of the genome, bacteria gene regulation, simulated DNA sequencing and DNA database analysis, and DNA manipulation. Laboratory safety is also reviewed. Submission of two formal laboratory reports is required for this course. Both classical and modern-day molecular biology techniques are used. Prerequisites: BIO 138, BIO 238, CHEM 238, BIO 118L, BIO 218L, and CHEM 218L. Three laboratory hours per week. Grade of "C" or above required.

BIO 450 In-Service Training and Instrumentation**credit 5 hrs.**

This course involves the study of the basic principles of microscopy (including histotechniques, instrumentation theory, and application), as well as in-service training. Two-fifths of the course deals with theory and laboratory exercises; three-fifths of the course consists of on-the-job experience in a health agency or institution based on the student's career interests. Students spend the last weeks of the semester, for a total of 135 hours, on the job. Prerequisites: Senior standing and permission of the Instructor. Grade of "C" or above required.

PROGRAM OF STUDY IN BIOLOGY FOR PRE-HEALTH PREPARATIONS

Biology majors preparing for entry into health professional schools to pursue careers in medicine, dentistry, optometry, osteopathy, veterinary medicine, pharmacy and the allied health professions should follow the Program of Study in Biology. In addition, students interested in primary health care careers such as medicine and dentistry will strengthen their potential for admission to and success in such schools with the addition of MATH 144 Calculus II, CHEM 437 Biochemistry, BIO 335 and BIO 336 Principles of Human Anatomy and Physiology I and II, BIO 438 Cell and Molecular Biology, and other upper level science courses.

PROGRAM OF STUDY IN BIOLOGY

FRESHMAN YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
ENG 131	Analysis & Argumentation	3	ENG 132	Information, Literacy & Research	3
MATH 138	College Algebra	3	MATH 140	Precalculus	4
*BIO 137	Principles of Biology I	3	*BIO 138	Principles of Biology II	3
*BIO 117L	Principles of Biology I Lab	1	*BIO 118L	Principles of Biology II Lab	1
STEM 131	Critical Thinking in Biology	3	HIST 130	Afr. American History	3
STEM 130	History of Biology	3		Health and Wellness	2
STEM 111	The College Experience I	1	STEM 112	The College Experience II	1
Total		17	Total		17

SOPHOMORE YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
ENG 237	Oral Communication	3	*BIO	BIO 200 Level	3
FR/SP/AR 233	Intermediate Foreign Language	3	*BIO	BIO 200 Level Lab	1
MATH 143	Calculus I	4	CHEM 138	Principles of Chemistry II	3
CHEM 136	Principles of Chemistry	3	CHEM 118L	Principles of Chemistry II Lab	1
CHEM 117L	Principles of Chemistry Lab	1	CSC 230/STEM 233	Visual Basic or Data Analysis	3
STEM 221	Professional Pathways Dev. In Biological Sciences	2	*STEM 230/SCI 230	Scientific Writing or Biomedical Research Techniques	3
			SCI 238	Undergrad. Research in Bio.	3
Total		16	Total		17

JUNIOR YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
*BIO	BIO 300 Level	3	*BIO	BIO 300 Level	3
*BIO	BIO 300 Level Lab	1	*BIO	BIO 300 Level Lab	1
STEM 337	Human Social Behavior	3	*BIO	BIO 300 Level Lab	1
PHYS 231	General Physics I	3	PHYS 232	General Physics II	3
PHYS 211L	General Physics I Lab	1	PHYS 212L	General Physics II Lab	1
CHEM 237	Organic Chemistry	3	CHEM 238	Organic Chemistry II	3
CHEM 217L	Organic Chemistry Lab	1	CHEM 218L	Organic Chemistry II Lab	1
SCI 331	Ethics in Science	3	STEM 328	Career Entrance Exams Prep	2
Total		18	Total		15

SENIOR YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
*BIO	BIO 400 Level	3	*BIO	BIO 400 Level	3
*BIO	BIO 400 Level Lab	1	*BIO	BIO Electives	4
*BIO	BIO 400 Level Lab	1	*BIO 422	Senior Research in Biology II	2
*BIO 421	Senior Research in Biology I	2	SCI 434	Special Topics in Biology	3
	Global and Intercultural	3		Global and Intercultural	3
*BIO	BIO Elective	3			
Total		13	Total		15

Total SCH 128

SCH in Major* 43

*Major courses require a "C" or better.

BIO Electives = BIO, CHEM, EHS, SCI, or STEM 200 level or above in Biology, Chemistry, or Environ. Health Science

CHEMISTRY COURSES**STEM 111 and STEM 112 The College Experience I and II****credit 1 hr. ea.**

(Course descriptions are located in the Academic Department Cross-Disciplinary Courses section of the catalogue.)

CHEM 130 Chemistry and Modern Society**credit 3 hrs.**

This survey course introduces chemistry to non-science majors through common substances and consumer products that are immersed in our lives. Topics include basic inorganic, organic biochemistry, foods, fuels, plastics, cosmetics, detergents, environmental chemistry, etc.

CHEM 110L Chemistry and Modern Society Lab**credit 1 hr.**

This course complements the general chemistry course for non-science majors (CHEM 130). It features regular hands-on laboratory sessions and integrated web-based virtual laboratory experiments that allow instructors to determine the process of scientific inquiry while students apply laboratory methods to reinforce acquired concepts in two laboratory hours per week.

CHEM 131 Preparatory Chemistry**credit 3 hrs.**

This survey course introduces chemistry to non-science majors through common substances and consumer products that are immersed in our lives. Topics include basic inorganic, organic, biochemistry, foods, fuels, plastics, cosmetics, detergents, and environmental chemistry.

CHEM 137 Principles of Chemistry I**credit 3 hrs.**

This course is a study of the fundamental principles of general chemistry, including atomic structure, chemical bonding, chemical equations, periodic properties of elements, and some descriptive chemistry as it relates to industrial processes.

CHEM 117L Principles of Chemistry I Lab**credit 1 hr.**

This is a one semester laboratory course on experiments and experimental techniques in general chemistry. The physical and chemical properties of matter, measurements, classification of chemical reactions, safe handling of chemicals, and recording and understanding of laboratory data and calculations are examined. Three laboratory hours per week. Co-requisite: CHEM 137.

CHEM 138 Principles of Chemistry II**credit 3 hrs.**

A continuation of CHEM137, the course includes introduction to the study of solution chemistry, colloidal systems, oxidation-reduction reactions, chemical equilibrium, and thermo-chemistry. Basic concepts of organic chemistry and qualitative analysis are also stressed. Prerequisites: CHEM 137 and CHEM 117L.

CHEM 118L Principles of Chemistry II Lab**credit 1 hr.**

This is a one semester laboratory course that is a continuation of CHEM 117L on experiments and experimental techniques in general chemistry with emphasis on chemical equilibrium, solutions, kinetics, acids and bases titrations, and the qualitative inorganic analysis of cations and anions. Prerequisite: CHEM 117L with at least a C. Co-requisite: CHEM 138. Three laboratory hours per week.

CHEM 231 Fundamentals of Radiochemistry**credit 3 hrs.**

The course is designed to build a basic familiarity with radiation science. Introducing chemical properties in radiation and radiochemistry as it applies to chemical analysis in the physical and biological sciences. It will emphasize radioactive decay, hot atom chemistry, nuclear dating methods, and nucleo-synthesis of elements. This course can also serve as an elective course for biology, CHEM 138 with a grade of "C" or higher.

CHEM 211L Fundamental of Radiochemistry Lab**credit 1 hr.**

The laboratory investigations are designed to expose students to current technologies and instrumentations in the field of radiochemistry. Three laboratory hours per week.

CHEM 232 Scientific Writing**credit 2 hrs.**

This is a fundamental course in the review of the concepts and theory of scientific writing. The course will provide students with knowledge in fundamental approaches used in scientific communications. Students will also be introduced to the underlying principles of technical writing in chemistry and the communication styles of different chemical literatures. Prerequisite: Permission of the Instructor.

CHEM 237 Organic Chemistry I

(DESIGNATED SERVICE-LEARNING COURSE)**credit 3 hrs.**

This course is a study of the fundamental laws and theories of organic chemistry, emphasizing the preparation of typical organic compounds; qualitative and quantitative organic analysis; hydrocarbons and their halogen, oxygen, and nitrogen derivatives; and an introduction to amino acids and carbohydrates. Prerequisites: CHEM 138 and CHEM 118L.

CHEM 217L Organic Chemistry I Lab**credit 1 hr.**

This course develops an examination of fundamentals of and practice in organic synthesis, separation, purification, and the identification of organic compounds. Microscale experimental techniques will be emphasized. Experiments include: recrystallization, distillation, extraction, chromatography, spectroscopy, and structure determination. Co-requisite: CHEM 237. Three laboratory hours per week.

CHEM 238 Organic Chemistry II**(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

A continuation of CHEM 237, this course emphasizes alkyl and aromatic compounds, including aldehydes, ketones, carboxylic acids, and ketoacids. Prerequisite: CHEM 237.

CHEM 218L Organic Chemistry II Lab**credit 1 hr.**

A course that offers a continuation of the examination of the fundamentals of and practice in organic synthesis, separation, purification, and the identification of organic compounds. Microscale experimental techniques will be emphasized. Experiments include: spectroscopy, kinetics, multi- step syntheses, and structure determination. Prerequisites: CHEM 237 and CHEM 217L. Co-requisite: CHEM 238. Three laboratory hours per week.

CHEM 328 Laboratory Techniques in Materials Science**credit 2 hrs.**

This course provides basic theories in material characterization using modern instruments and hands-on skills in processing materials. It requires both regular lectures and laboratory experiments. Topics include X-Ray Diffraction, IR/UV Spectroscopy, BET Surface Analysis, Thermal Gravity Analysis, Differential Scanning Calorimetry, chemical synthesis, particle dispersal and heat treatment. Prerequisites: CHEM 337 or Permission of the instructor.

CHEM 331 Internships in Radiochemistry**credit 3 hrs.**

This course is designed to expose the students to full-time involvement in an actual "on-the-job" situation in an industrial or research laboratory under the tutelage of a selected preceptor. A department faculty member will work closely with the student and preceptor and assumes responsibility for making the final evaluation and assigning a grade. A list of research sites to include but not be limited to programs at Department of Energy national laboratories and affiliated university sites, will be provided to the students prior to enrollment. This course is a requirement for chemistry majors with a concentration in radiochemistry. Prerequisite: CHEM 231.

CHEM 332 Directed Studies in Radiochemistry**credit 3 hrs.**

The directed study course is designed for students with advanced level interest in radiochemistry. Students may satisfy the requirements of this course through directed study under Benedict College faculty, enrollment in designated courses at Clemson University, South Carolina State University, or other designated partners, and/or collaborative studies involving the aforementioned. Approval is based on academic appropriateness. A suggested course list will be made available to students prior to course enrollment. This course is a requirement for chemistry majors with a concentration in radiochemistry. Prerequisites: CHEM 231 and CHEM 211L.

CHEM 333 Analytical Chemistry**credit 3 hrs.**

This course is an introduction to the principles of quantitative analytical techniques. Prerequisites: CHEM 138 and CHEM 118L.

CHEM 313L Analytical Chemistry Lab**(DESIGNATED SERVICE-LEARNING COURSE)****credit 1 hr.**

This is a one-semester laboratory course on the application of the techniques of quantitative analysis, standard volumetric and gravimetric techniques with focus on the handling of chemical apparatus, measurement, and treatment of analytical data are covered. Three laboratory hours per week. Prerequisites: CHEM 138 and CHEM 118L with at least a C. Co-requisite: CHEM 333.

CHEM 334 Instrumental Methods of Analysis**credit 3 hrs.**

This course is designed to provide students with an understanding of some common instrumental techniques which can be used in industry and research applications. These techniques include electrochemical, potentiometric, electrogravimetric and coulometric methods of analysis. Other

techniques studied include spectroscopic methods of analysis, the theory of molecular absorption spectroscopy analytical separations by extraction and ion exchange, and an introduction to chromatographic methods and applications of chromatography. Prerequisites: CHEM 237, CHEM 217L, CHEM 333, and CHEM 313L.

**CHEM 314L Instrumental Methods of Analysis Lab
(DESIGNATED SERVICE–LEARNING COURSE)**

credit 1 hr.

This is a one semester laboratory course on the application of techniques of instrumental analysis in areas of atomic and molecular spectroscopy, mass spectrometry, electroanalytical chemistry, and chromatography. Prerequisites: CHEM 333 and CHEM 313L with at least a C. Co-requisite: CHEM 334. Three laboratory hours per week.

CHEM 335 Inorganic Chemistry

credit 3 hrs.

This course encompasses the structure of the atom, bonding models in inorganic chemistry, the solid state, the structure and reactivity of the covalent bond, chemical forces, acid-base chemistry, chemistry in aqueous and nonaqueous solutions, molecular orbital theory, the theory of coordination chemistry and coordination chemistry-structure, descriptive chemistry of transition metals and organometallic chemistry. Prerequisites: CHEM 138 and CHEM 118L.

**CHEM 315L Inorganic Chemistry Lab
(DESIGNATED SERVICE–LEARNING COURSE)**

credit 1 hr.

Laboratory experiments in inorganic synthesis and spectroscopic methods in inorganic chemistry. Co-requisite: CHEM 335. Three laboratory hours per week.

CHEM 336 Medicinal Chemistry

credit 3 hrs.

This is an introductory level medical chemistry course that provides students with a detailed explanation of the molecular mechanism of drug action. The following topics will be covered: drug development process; drug approval process; receptors; drug interaction; pharmacodynamics; pharmacokinetics; and quantitative structure activities relationships. Some of the following classes of drugs will be discussed in detail-antibacterial, antiviral, and antitumor drugs; drugs that work on the central nervous system, analgesics, etc. Three one-hour lecture periods. Prerequisites: CHEM 238 and CHEM 218L.

CHEM 337 Introduction to Advanced Material

credit 3 hrs.

The course introduces fundamental theories and applied techniques in advanced materials and provides students with insight into fields of new energy, environmental remediation, and nanotechnology. Topics include atomic structure, chemical bonding, solid structure, phase changes, materials processing, and applications. Prerequisite: CHEM 137/138 or PHYS 243/244 or Permission of the Instructor.

CHEM 338 Chemistry with Computer Modeling

credit 3 hrs.

This is an introductory course for applications of modern computer technologies in chemistry. The course covers basic theories and methods in high-performance computing, computer visualization and molecular modeling. Specifically, the students will learn how to study geometry, molecular property and chemical reactivity of organic compounds through computer modeling. The course also includes computational laboratory exercises to supplement theories and methods covered in lectures. Prerequisite: CHEM 137, CHEM 138, or Permission of the Instructor.

CHEM 430 Senior Research in Chemistry

credit 3 hrs

Students may elect to do directed laboratory research accompanied by literature review of recent trends on the subject of research interest under faculty supervision or engage in research internship in government or other academic research institutions. Students may also elect an intensive library review of chemical/biology journals on contemporary topic of interest. Senior papers incorporate theoretical backgrounds, research methods and analytical methodologies as well as appropriate format used in chemical and or biological literatures will be presented to faculty. Prerequisite: CHEM 232.

CHEM 440 Research or Directed Individual Study

credit 1-4 hrs.

The student may elect to do individual research or specific chemical problems, including intensive library and laboratory research under the direction of a faculty member or engage in on-the-job training in government agencies or industrial companies. Prerequisite: Permission of the Instructor.

CHEM 431 Physical Chemistry I

credit 3 hrs.

This course is a study of atomic and molecular structure; properties and thermodynamics of gases, liquids, and solids; and the relationships of various physical properties to structure and reactivity. A

research paper is required. Prerequisites: CHEM 238, CHEM 218L, PHYS 244 and MATH 144.

CHEM 411L Physical Chemistry Lab**credit 1 hr.**

Introduction to methods and techniques used in the physical chemistry laboratory, including experiments in calorimetry, phase equilibria, reaction kinetics, and transport properties. Three laboratory hours per week.

CHEM 432 Physical Chemistry II**credits 3 hrs.**

Fundamental principles of theoretical chemistry are treated in a quantitative manner. Emphasis is placed on topics which are particularly applicable to an understanding of industrial chemical principles. Topics include chemical equilibria and kinetics, electrochemistry, photochemistry, quantum chemistry, statistical mechanics, and colloids. A senior research paper is required. Prerequisites: CHEM 431 and CHEM 411L.

CHEM 412L Physical Chemistry II Lab**credit 1 hr.**

A continuation of CHEM 411L with an introduction to methods and techniques in computational chemistry and spectroscopy. Three laboratory hours per week.

CHEM 437 Biochemistry**credit 3 hrs.**

This course covers the chemistry of lipids, carbohydrates, proteins, nucleic acids, and enzymes and briefly considers vitamins, steroids, hormones, and clinical procedures. Prerequisites: CHEM 238 and CHEM 218L.

CHEM 417L Biochemistry Lab**credit 1 hr.**

The experiments in this laboratory course have been designed to acquaint the students with the basic skills necessary to perform biochemical studies. The course will cover, for instance, protein purification, acid-base studies, spectrophotometric protein assay, subcellular fractionation, exclusion, ion exchange chromatography, and electrophoresis. Prerequisites: CHEM 238 and CHEM 218L. Co-requisite: CHEM 437. Three laboratory hours per week.

CHEM 438 Topics in Biochemistry**credit 3 hrs.**

This course deals with the chemistry of lipids, carbohydrates, proteins, and nucleic acids. Techniques of protein purification and separation will be emphasized. Prerequisites: CHEM 238 and Permission of the Instructor. An honors section is offered. Prerequisites: CHEM 437 and CHEM 417L.

CHEM 418L Topics in Biochemistry Lab**credit 1 hr.**

The experiments in this laboratory involve the purification and separation of proteins, carbohydrates, and nucleic acids. Co-requisite: CHEM 438. Three laboratory hours per week.

PROGRAM OF STUDY IN CHEMISTRY

FRESHMAN YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
ENG 131	Analysis & Argumentation	3	ENG 132	Information, Literacy & Research	3
MATH 138	College Algebra	3	MATH 140	Precalculus	4
*CHEM 137	Principles of Chemistry I	3	*CHEM 138	Principles of Chemistry II	3
*CHEM 117L	Principles of Chemistry I Lab	1	*CHEM 118L	Principles of Chemistry II Lab	1
HIST 130	Afr. American History	3		Global and Intercultural	3
STEM 111	The College Experience I	1		Health and Wellness	2
			STEM 112	The College Experience II	1
Total		14	Total		17

SOPHOMORE YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
ENG 237	Oral Communication	3	*CHEM 238	Organic Chemistry II	3
FR/SP/AR 233	Intermediate Foreign Language	3	*CHEM 218L	Organic Chemistry II Lab	1
MATH 143	Calculus I	4	MATH 144	Calculus II	4
*CHEM 237	Organic Chemistry I	3	CSC 135	Introduction to Programming	3
*CHEM 217L	Organic Chemistry Lab	1	*CHEM 232	Scientific Writing	3
STEM 221	Professional Pathways Dev. In Chemistry	2		Global and Intercultural	3
Total		16	Total		17

JUNIOR YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
*CHEM 333	Analytical Chemistry	3	*CHEM 334	Instrum Meth of Analysis	3
*CHEM 313L	Analytical Chemistry Lab	1	*CHEM 314L	Instrum Meth of Analysis Lab	1
PHYS 233	Principles of Physics I	3	PHYS 234	Principles of Physics II	3
PHYS 213L	Principles of Physics I Lab	1	PHYS 214L	Principles of Physics II Lab	1
MATH 241	Calculus III	4	*CHEM 335	Inorganic Chemistry II	3
STEM 233	Data Analysis	3	*CHEM 315L	Inorganic Chemistry II Lab	1
MATH 230	Linear Algebra	3	MATH 237	Differential Equations	3
			STEM 328	Career Entrance Exams Prep	2
Total		18	Total		17

SENIOR YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
*CHEM 421	Physical Chemistry I	3	*CHEM 432	Physical Chemistry II	3
*CHEM 411L	Physical Chemistry I Lab	1	*CHEM 412L	Physical Chemistry II Lab	1
*CHEM	Elective	3	*CHEM 430	Senior Research in Chemistry	3
*CHEM 437	Biochemistry	3	*CHEM	Elective	3
*CHEM 417L	Biochemistry Lab	1		300 Level STEM Lecture	3
	300 Level STEM Lecture	3		300 Level STEM Lab	1
	300 Level STEM Elective Lab	1			
Total		15	Total		14

Total SCH 128

SCH in Major* 52

*Major courses require a "C" or better.

CHEM Electives = BIO, CHEM, EHS, SCI, or STEM 200 level or above in Biology, Chemistry, or Environ. Health Science

ENVIRONMENTAL HEALTH SCIENCE**ENVIRONMENTAL HEALTH SCIENCE COURSES****STEM 111 and STEM 112 The College Experience I and II****credit 1 hr. ea.****(Course descriptions for all seminars are on pages 86-87.)****ESC 130 General Environmental Health Science****credit 3 hrs.**

A comprehensive discussion of the impact of environmental pollution in the three global life support zones of water, air, and soil and the resultant adverse health effects. The course emphasizes interactions between living and non-living components of ecosystems. It also focuses on how those interactions help or harm humans and their environments. This course does not count for credit toward the Environmental Health Science major requirements. Science majors should take ESC 131 and ESC 111L.

ESC 110L General Environment Health Science Lab**credit 1 hr.**

This course complements the environmental science course for non-science majors, and it allows students to conduct hands-on analyses of environmentally relevant document such as graphs, tables, charts, and case studies. The course also instructs students on the components of the scientific method and incorporates activities to assist students in understanding and using that scientific method. Two laboratory hours per week.

ESC 131 Principles of Environmental Health Science**credit 3 hrs.**

This course for Environmental Health Science (EHS) is a scientific introduction and exposure to knowledge relating to the origins of and methods of addressing concerns within our geological, atmospheric and hydrological environments. Methods and procedures for monitoring and controlling pollution in residential and occupational settings will be explored. Characterization and control of physical, chemical, biological and radiological pollutants to air, water, soil, and food will be presented. A minimum grade of "C" is required in this course before students may enroll in advanced Environmental Health Science courses.

ESC 111L Principles of Environmental Health Science Lab**credit 1 hr.**

The laboratory course is project oriented with students completing multi-week investigations culminating in a self-designed research project. Three laboratory hours per week.

ESC 230 Solid and Hazardous Waste Control**(DESIGNATED SERVICE –LEARNING COURSE)****credit 3 hrs.**

A study of solid and hazardous waste with emphasis on landfill, incineration, composting, and recycling as safe disposal procedures. Topics include: the evolution of solid and hazardous waste management; roles of legislative and governmental agencies; on-site handling, storage and processing; transfer and transport; processing techniques and equipment; recovery of resources, conversion products and energy; safe disposal of solid and hazardous waste and residual material; and planning and management development, selection, and implementation. Additionally, engineering principles will be used to solve waste disposal problems where applicable. Three 1-hour lecture periods. Prerequisites: BIO 138 and BIO 118L.

ESC 331 Air Pollution Control**(DESIGNATED SERVICE –LEARNING COURSE)****credit 3 hrs.**

An overview of current air pollution problems, the chemistry of air pollution and polluted atmospheres, potential human health effects, air pollution control technology, and laws regulating air pollution. Three one-hour periods. Students will also have the option to complete a related United States Environmental Protection Agency Air pollution course. Prerequisites: ESC 131, ESC 111L, and MATH 138.

ESC 332 Industrial Hygiene**(DESIGNATED SERVICE – LEARNING COURSE)****credit 3 hrs.**

Course contents entail a study of health and safety in single and multiple living units as well as in industrial settings. Safety and healthy use of materials, equipment, and supplies will be analyzed in various residential and occupational settings. Health and safety considerations of personnel and facilities will be revealed and analyzed. Prerequisites: ESC 131, ESC 111L, BIO 138, BIO 118L, CHEM 138, and CHEM 118L.

ESC 333 Disease Vectors and Control**credit 3 hrs.**

This course represents a study of the vectors responsible for arthropod-borne diseases of medical and veterinary importance; emphasis is on morphology, natural history, ecology, and behavior of vectors in relation to disease transmission and their control. Three one-hour lecture periods with an option to complete the U.S. Center for Disease Control Vectorborne Disease Control course. Prerequisites: ESC 131, ESC 111L, BIO 138, BIO 118L, CHEM 138, and CHEM 118L.

ESC 334 Food and Milk Products Sanitation**credit 3 hrs.**

This course is a study of the sanitary controls and environmental health practices employed in the production, processing, and retailing of food and milk products. Also included are food sanitation regulation, involving food storage preparation and service. Three one-hour lecture periods. The course may serve as an elective for environmental health science and other STEM majors. Course allows students the option of also completing the U. S. Centers for Disease Control Foodborne Disease Control course. Prerequisites: ESC 131 and ESC 111L or Permission of the Instructor.

ESC 314L Food and Milk Products Sanitation Lab**credit 1 hr.**

This course complements the lecture component for food and milk product course, and it is intended primarily for environmental health science, biology, or chemistry majors. The course includes analysis of biological, physical, and chemical aspects of food. Additionally, the course provides laboratory instruction on procedures for inspecting food facilities and investigating food borne illnesses. Three laboratory hours per week.

ESC 335 Environmental Forensics & Analysis**credit 3 hrs**

This course provides skills and experience in the field of environmental forensics and chemistry. It will provide opportunities for critical assessment and analysis of priority pollutants through techniques such as carbon aging, chemical finger prints and physical dispersion. Prerequisites: CHEM 138 and CHEM 118L.

ESC 315L Environmental Forensics & Analysis Lab**credit 1 hr.**

Students learn the services provided by a crime lab; the scientific and legal constraints placed upon criminalists; the theory and practice of collecting, preserving, and analyzing of physical evidence. Laboratory experiences include analysis of microscopic evidence, identification and individualization of physical and chemical objects, development of latent fingerprints, rolling and classification of fingerprints, some instrumental analysis, and thin layer and paper chromatography. Three laboratory hours per week.

ESC 340 Environmental Internship I**credit 3 hrs**

Each student is required to complete in two consecutive internship courses a minimum of six semester credit hours (6 SCH) and a minimum of 180 clock hours of field training in an appropriate setting approved by the advisor. Each internship course will count 3 semester credit hours and will require a minimum of 90 clock hours of field internship experience. This experience will primarily be acquired during summer months; however, the experience may be acquired during the regular academic term only when the student is able to acquire the minimum number of field clock hours without interruption. The student will apply analytical environmental techniques employed in the chemical and biological assessment of environmental quality. Prerequisites: ESC 131 and ESC 111L and Permission of the advisor.

ESC 430 Environmental Health Administration**credit 3 hrs.**

This course addresses the structure and administration of environmental health organizations with emphasis on the legal and financial basis of programs and the management practices utilized in present programs. A senior research paper is required. Three 1-hour lecture periods. Prerequisites: ESC 131, ESC 111L, BIO 138, BIO 118L, CHEM 138 and CHEM 118L or Permission of the Instructor.

ESC 434 General Environmental Toxicology**credit 3 hrs.**

This course presents applications of basic anatomical, biochemical, and physiological principles and assessment of environmental pollutants which potentially can produce health hazards, with approaches towards effectively reducing these threats. Content is presented in three 1-hour lecture periods. Prerequisites: ESC 131, ESC 111L, BIO 138, BIO 118L, CHEM 138, and CHEM 118L or Permission of the Instructor.

ESC 435 Biostatistics**credit 3 hrs.**

This course will cover the basic principles, methods, logic and language of statistics from a health perspective. Topics include: summary statistics; basic probability; discrete and continuous random variables; sample size determination; distributions (Normal, Poisson, Binomial, Hypergeometric);

estimation and hypothesis testing and confidence intervals; t-test; Analysis of Variance (ANOVA); simple and multiple linear regression; correlation. Prerequisites: ESC 131 and MATH 138, or Permission of the Instructor.

ESC 436 Epidemiology**credit 3 hrs.**

Course contents present principles of epidemiologic thinking; measures of disease frequency and association, rates, etiology, prevention and control; determinants of disease and distribution factors influencing health and disease in populations; study design and analysis; indices of disease and health; epidemiology methods used in the investigation of health efforts of environmental exposures. Prerequisites: ESC 131, ESC 111L, BIO 138, and BIO 118L.

**ESC 439 Water Supply Wastewater Treatment and Environmental Health
(DESIGNATED SERVICE –LEARNING COURSE)****credit 3 hrs.**

This course addresses the role of liquid wastes in human health; evaluation of source, treatment, and disposal facilities; and the study of the properties, distribution and utilization of water in natural and man-made systems. Laboratory and field studies are conducted using both qualitative and quantitative methods of instruction.

**ESC 419L Water Supply Wastewater Treatment
and Environmental Health Lab****credit 1 hr.**

This course is the laboratory complement to the water and wastewater lecture course. It provides students an understanding of the process and procedures that are used to treat both water and wastewater. Simulated treatment procedures are conducted to assist students in better understanding treatment plant facilities and equipment. Analyses of water for specific chemicals and conditions will also be conducted. Three laboratory hours per week.

ESC 441 Research or Directed Individual Study**credit 1-4 hrs.**

The student may elect to conduct individual research on a specified environmental health problem, including intensive library and laboratory research, under the direction of a faculty member or under joint direction of a mentor while engaged in on-the-job training in a governmental agency or company. Prerequisite: Permission of the Instructor.

ESC 440 Environmental Internship II**credit 3 hrs.**

This course is a continuation of ESC 340x and all requirements of that course also apply to this follow-up course. For example, this 3 SCH course also requires that students taking the course must acquire a minimum of 90 field internship clock hours beyond the 90 hours acquired within the first half of this two-part course. ESC 440 must be taken immediately after taking ESC 340; however, the two courses may be taken concurrently only when the student is able to acquire all 180 field internship clock hours without interruption. Prerequisites: ESC 131 and ESC 111L or Permission of the Instructor.

PROGRAM OF STUDY IN ENVIRONMENTAL HEALTH SCIENCE

FRESHMAN YEAR					
First Semester		SCH	Second Semester		SCH
ENG 131	Analysis & Argumentation	3	ENG 132	Information, Literacy & Research	3
MATH 138	College Algebra	3	MATH 140	Precalculus	4
BIO 137	Principles of Biology I	3	BIO 138	Principles of Biology II	3
BIO 117L	Principles of Biology I Lab	1	BIO 118L	Principles of Biology II Lab	1
ENG 237	Oral Communications	3	HIST 130	Afr. American History	3
*ESC 131	Principles of Env Health Sci	3		Health and Wellness	2
*ESC 111L	Principles of EHS Lab	1	STEM 112	The College Experience II	1
STEM 111	The College Experience	1			
Total		18	Total		17
SOPHOMORE YEAR					
First Semester		SCH	Second Semester		SCH
CHEM 136	Principles of Chemistry	3	*ESC	ESC 200 Level	3
CHEM 117L	Principles of Chemistry Lab	1	STEM 230	Scientific Writing	3
FR/SP/AR 233	Intermediate Foreign Language	3	CHEM 138	Principles of Chemistry II	3
STEM 131	Critical Thinking in EHS	3	CHEM 118L	Principles of Chemistry II Lab	1
BIO 233	Human Anatomy & Physiology I	3	CSC 230/STEM 233	Visual Basic or Data Analysis	3
PHYS	General Physics I	3	BIO 234	Human Anatomy & Physiology II	3
PHYS 213L	General Physics I Lab	1	SCI 221	Professional Pathw ays Dev.	2
Total		17	Total		18
JUNIOR YEAR					
First Semester		SCH	Second Semester		SCH
*ESC	ESC 300 Level	3	*ESC 332	Industrial Hygiene	3
*ESC	ESC 300 Level Lab	1	*ESC	ESC 300 Level	3
CHEM 237	Organic Chemistry I Lab	3	BIO 339	Microbiology	3
CHEM 217L	Organic Chemistry I Lab	1	BIO 319L	Microbiology Lab	1
CHEM	CHEM 300 Level	3	STEM 328	Career Entrance Exams Prep	2
CHEM	CHEM 300 Level Lab	1			
Pre-Senior Year Summer I			Pre-Senior Year Summer II		
*ESC 340	Environmental Internship I	3	*ESC 440	Environmental Internship II	3
Total		15	Total		15
SENIOR YEAR					
First Semester		SCH	Second Semester		SCH
*ESC	ESC 400 Level	3	*ESC 434	Toxicology	3
*ESC	ESC 400 Level Lab	1	*ESC 435	Biostatistics	3
*ESC 430	Env Health Administration	3	*ESC 436	Epidemiology	3
*ESC 441	Senior Research in EHS	2		Global and Intercultural	3
	Global and Intercultural	3			
*ESC	ESC Elective	4			
Total		16	Total		12
Total SCH		128			
SCH in Major*		45			
*Major courses require a "C" or better.					

EHS Electives = BIO,EHS, SCI, or STEM 200 level or above in Biology, Chemistry, or Environmental Health Science

COMPUTER SCIENCE, PHYSICS, AND ENGINEERING DEPARTMENT

COMPUTER SCIENCE COURSES

CSC 131 Introduction to Computers**credit 3 hrs.**

Provides a general overview of the history, impact, and general use of computers. Basic computer concepts and data management are explored with emphasis on the applications of computers in the different disciplines.

CSC 132 Introduction to Computing and Programming Concepts**credit 3 hrs.**

This course is an overview of computer concepts, including hardware, operating systems, binary numbers, and programming logic. This course is offered for STEM majors. Non-STEM majors should enroll in CSC 131.

CSC 133 Digital Logic**credit 3 hrs.**

This is a study of basic concepts of the binary system, logic gates, combination logic, memory elements, sequential logic, processors and control logic design. Prerequisite: CSC 132.

CSC 135 Introduction to Programming**credit 3 hrs.**

The course is a study of the programming language C++ including data types, arrays, input/output, control flow, functions, and program structure. The course covers creating and debugging projects in Integrated Development Environments. Prerequisites: CSC132 or passing the exemption test for CSC 132.

CSC 136 Algorithm Design I**credit 3 hrs.**

This is a study of concepts and properties of fundamental computing algorithms using C++. The course covers structured programming, problem solving methods, and program design in C++. Prerequisite: CSC 135 or passing the exemption test for CSC 135.

CSC 138 Algorithm Design II**credit 3 hrs.**

A continuation of CSC136 with focus on Object-Oriented Programming, STL, Dynamic Memory Management, Recursion, and Advanced Level Algorithm implementation. Prerequisites: CSC 136.

CS139 Web Development**credit 3 hrs.**

This course is an introduction to developing basic websites to web standards. It will provide a basic understanding of the methods and techniques of developing a simple to moderately complex website. Topics include HTML, CSS, and Javascript. At the end of the course, students will be able to plan, design, and implement a web site using current standards and best practices.

CSC 230 Visual Basic**credit 3 hrs.**

Course content includes an introduction to problem-solving techniques and study of Visual Basic components and concepts and program development process. Programming topics in Visual Basic to include analysis, design and code development of Graphic User Interface (GUI).

CSC 231 Assembly Language**credit 3 hrs.**

This is a study of assembly language for IBM PC compatible systems. Course covers registers, instruction formats, I/O coding, debugging and testing techniques. Prerequisite: CSC 132 or Permission of the Instructor.

CSC 232 Computer Graphics**credit 3 hrs.**

The course presents fundamentals of computer graphics including detailed investigation of supporting hardware and software. Emphasis on primitive, two and three dimensional viewing and innovation in text representations. Prerequisite: CSC 138.

CSC 233 Programming in FORTRAN**credit 3 hrs.**

Course covers programming in FORTRAN language with applications in chemistry, physics, statistics and engineering. It also includes numerical techniques and implementation of efficient algorithms. Prerequisite: CSC 135 or Permission of the Instructor.

CSC 234 Theory of Computations**credit 3 hrs.**

This course presents formal models of computation such as finite state automata, push down automata, and Turing Machines. Formal definitions of languages, problems, and language classes including recursive, recursively enumerable, regular, and context free languages. Proofs of program

properties including correctness are emphasized. Prerequisite: CSC 132 or Permission of the Instructor.

CSC 236 Business Programming**credit 3 hrs.**

The course introduces the concepts of Business Programming. It provides the students with understanding how technology can be used to create business value and make knowledgeable decisions concerning the planning, development and implementation of information technology resources to increase organizational effectiveness and create a strategic advantage. Prerequisite: CSC 131 or CSC 132 or Permission of the Instructor.

CSC 237 Java Programming**credit 3 hrs.**

This course covers fundamental Java Programming concepts, which include Java constructs, objects and applications, exceptions, and elementary graphics and user interfaces. It also includes threads, input/output, networking, graphics manipulation, native methods, and graphical user interface design. Prerequisite: CSC 138 or Permission of the Instructor.

CSC 238 Introduction to Computer Security**credit 3 hrs.**

This course is an introduction to the theory and practice of computer security, including security policies, authentication, digital certificates, firewalls, malicious code, legal and ethical issues, and incident handling. Prerequisite: CSC 132 or Permission of the Instructor.

CSC 239 Introduction to Multimedia Computing**credit 3 hrs.**

This course explores basic concepts of multimedia applications including text, graphics, sound, animation and the integration of these components. Topics include web page design, testing, uploading and maintaining the applications. Programming languages include HTML, CSS, and Java Script.

CSc 332 Computer Forensics**credit 3 hrs.**

This course covers tracking computer security violations. Topics include methods for recognizing network signatures and tracking them back to their origins, tracing methods in different operating systems, and identify other related techniques. Prerequisite: CSc 238

CSC 333 Data Structures**credit 3 hrs.**

This course presents advanced data structures such as stacks, queues, priority queues, heaps, trees, and graphs. The course discusses advanced algorithms and recursion using ADT. The course also focuses on time and space efficiencies of the algorithms, Big O, Big Theta, and Big Omega notations. Prerequisite: CSC 138, MATH 140.

CSC 334 Adv. Algorithms Design**credit 3 hrs.**

The course covers good principles of algorithm design, and the fundamentals of the Analysis of Algorithm Efficiency. Topics include Brute Force and Exhaustive Search, Divide-and-Conquer, Dynamic Programming and Greedy Technique. Students will learn to apply Big O, Big Theta, and Big Omega notations to analyze time and space efficiencies of the algorithms. Prerequisite: CSC 333.

CSC 335 File Organization and Processing**credit 3 hrs.**

This course presents characteristics and utilization of a variety of storage devices. The concepts of sequential, direct, and index sequential access are discussed. Some file related algorithms and techniques are studied. Prerequisite: CSC 138.

CSC336 Mobile Application Development**credit 3 hrs.**

This course will introduce mobile application development frameworks; Architecture, design and engineering issues, techniques, methodologies for mobile application development. Students will learn to develop mobile applications, including user interface design for mobile, local and cloud data storage techniques, and application architectures. Prerequisite: CSC 237.

CSC 337 Computer Organization and Architecture**credit 3 hrs.****(DESIGNATED SERVICE-LEARNING COURSE FOR COMPUTER SCIENCE)**

This study is a multilevel view of computer systems and organizations, interconnection of basic components, input-output control, and parallel and pipeline processing. Prerequisite: CSC 133 and CSC

231.

CSC 338 Introduction to Artificial Intelligence**credit 3 hrs.**

This course introduces principles and techniques of artificial intelligence systems. It includes sub-symbolic artificial intelligence, search strategies and heuristic problem solving techniques, knowledge representation formalism, automatic logical deduction, expert systems, artificial intelligence applications. Prerequisites: CSC 333 and MATH 336.

CSC 339 Data Communication and Networking**credit 3 hrs.**

This course introduces the fundamental principles of data communications and networking along with an overview of computer and network security threats. Topics include protocol architecture, TCP/IP, internet-based applications, data transmission, local area networks, wireless LANS, virtual private networks, SSL, firewalls and malware defense. Prerequisite: CSC 337.

CSC 340 Windows Programming with C++**credit 3 hrs**

This course focuses on learning .NET programming environment, Event-based programming, and Windows programming using C++ language. The course will include Microsoft Visual Studio .NET IDE, C++ language syntax, control structures, exception handling, Windows graphical user interface, Graphics and Multimedia, Files and Stream, XML, Database SQL, and ADO.NET. Prerequisite: CSC 138.

CSC 341 Web Programming with C++**credit 3 hrs.**

This course continues learning .NET programming environment in application to Web design. The course will include Database SQL and ADO.NET, ASP.Net, Web Forms and Web Controls, ASP .NET and Web Services. Prerequisite: CSC 340.

CSC 430 Principles of Unix**credit 3 hrs.**

This course covers the design and history of the Unix operating system. It details the process and file system data structures, Shell programming in Unix and use of process-forking functionality of Unix to simplify complex problems. Also covered are interprocess communication and coordination and device drivers and streams as interface to hardware features. Prerequisite: CSC 136.

CSC 431 Programming Languages**credit 3 hrs.**

This is an introduction to formal languages and automatic processes; a review of basic data types and structures; control structures and data flow; and implementation of these in a variety of languages (C, C++, Lisp, Prolog, ADA, Modula-2). Prerequisite: CSC 333.

CSC 432 Compiler Theory**credit 3 hrs.**

This course is a discussion of compiler techniques used in generating machine language code. Topics include scanning, parsing, code generation, optimization, and error recovery. Prerequisite: . CSC 234.

CSC 433 Computer Security**credit 3 hrs.**

This course will introduce the basic threats to information resources and appropriate countermeasures. The topic will cover cryptography, identification and authentication, access control models and mechanisms, multilevel database security, steganography, Internet security, and intrusion detection and prevention. Prerequisite: CSC 339.

CSC 434 DataBase Management**credit 3 hrs.**

This is the study of organization and design of database systems. Database models and fundamentals of database design are introduced. Topics include database structure and processing, with emphasis on relational database and SQL. Prerequisite: MATH 336 or Permission of the Instructor.

CSC 435 Software Engineering Principles**(DESIGNATED SERVICE-LEARNING COURSE FOR COMPUTER SCIENCE) credit 3 hrs.**

This course provides practical experience in Software Systems design. The course develops and integrates skills in applied Computer Science, project management, communication, problem solving, and design methodology. Prerequisite: CSC 333.

CSC 436 Operating Systems ++ (DESIGNATED SERVICE-LEARNING COURSE FOR COMPUTER SCIENCE)**credit 3 hrs.**

This is a basic study of computer architecture and operating systems. Topics include: instruction sets, I/O and interrupt structures, addressing schemes, microprogramming, procedures implementation, memory management, system structures and evaluation, and recovery procedures. Prerequisite: CSC 138, CSC 337.

CSC 437 Senior Capstone**credit 3 hrs.**

This course will guide computer science students to develop a capstone project, serving as a culmination of their studies within the major. The project entails the development of a significant piece of software by a student or a student team, supervised by a designated faculty member within the department and evaluated by a faculty committee. Appropriate topics for the project may synthesize or extend ideas/results from several areas of study from coursework, or develop a topic not normally covered in the curriculum but can be approached by techniques and ideas in the team's academic background. The senior project concludes with the submission of a "product" (i.e. software). It is required of the student to submit a grammatically written paper and to defend his or her project in front of faculty and students. Prerequisites: CSC 334 & CSC 435.

CSC 438 Simulation and Modeling**credit 3 hrs.**

This is an introduction to simulation techniques including: discrete models, queuing theory, stochastic systems, and system dynamics. Prerequisites: CSC 333 and MATH 144 or MATH 336.

**CSC 439 Special Topics in Computer Science
(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

This course covers advanced topics in Computer Science and includes Artificial Intelligence and human-computer interfaces (HCI). Prerequisite: CSC 333 or Permission of the Instructor.

MCS 430 Senior Research and Professional Experience**credit 3 hrs.****(DESIGNATED SERVICE-LEARNING COURSE FOR COMPUTER SCIENCE)**

The course focuses on reading, discussion, investigation, and preparation and presentation of reports on selected topics in Mathematics or Computer Science, under faculty supervision. The course also covers ethical, professional, and social responsibilities of graduates and professional Internship of at least 150 hours. Prerequisite: CSC 333 or Permission of the Instructor.

PROGRAM OF STUDY IN COMPUTER SCIENCE

FRESHMAN YEAR					
First Semester		SCH	Second Semester	SCH	
ENG 131	Analysis & Argumentation	3	ENG 132	Information, Literacy & Research	3
MATH 140	Precalculus	4	MATH 143	Calculus I	4
*CSC 139	Web Development	3	*CSC 135	Introduction to Programming	3
HIST 130	Afr. American History	3	*CSC 133	Digital Logic	3
	Health and Wellness	2		Global and Intercultural	3
STEM 111	The College Experience	1	STEM 112	The College Experience II	1
Total		16	Total		17
SOPHOMORE YEAR					
First Semester		SCH	Second Semester	SCH	
*CSC 136	Algorithm Design I	3	MATH 336	Discrete Mathematics	3
MATH 144	Calculus II	4	*CSC 138	Algorithm Design II	3
ENG 237	Oral Communication	3	*CSC 234	Theory of Computations	3
*CSC 231	Assembly Language	3	*CSC 237	Java Programming	3
*CSC 238	Intro to Computer Security	3	FR/SP/AR 233	Intermediate Foreign Language	3
STEM 221	Professional Pathways Dev.	2		Global and Intercultural	3
Total		18	Total		18
JUNIOR YEAR					
First Semester		SCH	Second Semester	SCH	
PHYS 233	Prin of Physics I	3	PHYS 234	Principles of Physics II	3
PHYS 213L	Prin of Physics I Lab	1	PHYS 224L	Principles of Physics II Lab	1
*CSC 333	Data Structures	3	MATH 236	Probability and Statistics	3
MATH 230	Linear Algebra	3	MATH 237	Differential Equations	3
*CSC 337	Computer Org and Architecture	3	*CSC 334	Adv. Algorithm Design	3
*CSC 336	Mobile Application Development	3	*CSC 338	Intro to Artificial Intelligence	3
Total		16	Total		16
SENIOR YEAR					
First Semester		SCH	Second Semester	SCH	
*CSC 435	Software Engineering Principles	3	*CSC 436	Operating Systems	3
*CSC 431	Programming Languages	3	*CSC 434	Database Management	3
*CSC 339	Data Comm. & Networking	3	*CSC 437	Senior Capstone	3
*MCS 430	Professional Experience	3	*CSC	CSC Elective	3
	Elective	3			
Total		15	Total		12
Total SCH		128			
SCH in Major*		66			

*Major courses require a "C" or better.

APPLIED COMPUTING MINOR**Information Technology Track (School of Arts and Sciences)**

It is designed to apply practical information technology of scientific data processing and analysis in different STEM areas such as Biology, Chemistry, Physics, etc.

- Students will be able to demonstrate the ability to apply the fundamental mathematical data analysis methods used in information technology. (SLO A(1))
- Students will be able to demonstrate the ability to use the related information technology in practical scientific data analysis and processing. (SLO A(2))
- Students will demonstrate the skills to process and analyze scientific data in their disciplines. (SLO B(1))

Students will be able to choose two of the following alternative courses (credit 6 hrs) to strengthen the scientific data analysis skills upon their needs:

- MATH 336 Discrete Mathematics
- MATH 435 Statistical Methods
- MATH 431 Numerical Analysis I
- MATH 432 Numerical Analysis II

Students will be able to choose two of the following alternative courses (credit 6 hrs) to apply the information technology to facilitate scientific data analysis:

- CSC 338 Introduction to Artificial Intelligence
- CSC 434 Database Management
- CSC 438 Simulation and Modeling
- CSC 439 Special Topics in Computer Science

Management Information Track (School of Business and School of Continuing Education)**Required Courses:**

- ACC 432 Accounting Information Systems (Not for Accounting Major)
- MGT 332 Business Information Systems
- MKT 339 Internet Marketing

Other course candidates are (students may select one 3 or 6 credit hrs course from this group):

- CSC 236 Business Programming
- CSC 335 File Organization and Processing
- CSC 434 Database Management

Mass Communication Track (School of Arts and Sciences)

- Students will be able to use the research toolbox focused on methods of data structuring, manipulation and reporting resulting in effective data journalism. (SLO A(1))
- Students will navigate and use data visualization methods and the emerging tools that support data visualization in media. (SLO A(2))
- Students will acquire an understanding of organizational information systems and data-driven decision support. (SLO B(1))

Required Courses:

- MASS 234 Reporting for New Media
- MASS 431 Digital Imaging Technology
- MASS 436 Research Methods in Mass Communication (special section)

Students will be able to choose one of the following three alternative courses, available either in the Spring or the Fall semesters:

- CSC 236 Business Programming
- MGT 332 Business Information Systems
- MKT 339 Internet Marketing

Music Industry Concentration Track**Required Courses:**

- MUS 211E Electronic Computer Music
- MUS 321 Concert Recording
- MUS 435 Scoring for Film and Multimedia
- MUS 440 Music Industry Internship

Choose One of the following courses:

- CSC 236 Business Programming
- CSC 335 File Organization and Processing
- CSC 434 Database Management

Interdisciplinary Studies Track (School of Continuing Education)**Required Courses:**

- CSC 236 Business Programming
- MKT 339 Internet Marketing
- MASS 431 Digital Imaging Technology

Students will be able to choose ONE of the following alternative courses:

- CSC 335 File Organization and Processing
- CSC 434 Database Management

MATHEMATICS COURSES**MATH 132 General College Mathematics I****credit 3 hrs.**

This course is designed to cultivate an appreciation of the significance of mathematics in daily life and develop students' mathematical skills in problem solving. Topics include Set Theory, Number theory and the real number system, Equations and Inequalities, Consumer Mathematics and Financial Management.

MATH 134 General College Mathematics II**credit 3 hrs.**

This course is an introduction to non-technical applications of mathematics in the modern world. The course is designed to cultivate an appreciation of the significance of mathematics in daily life and develop students' mathematical reasoning. Topics include Algebra: Graphs, Functions and Linear System. Geometry, Counting Methods and Probability Theory, and Statistics.

Prerequisite: MATH 132.

MATH 126 Introduction to Mathematical Software**credit 2 hrs.**

This course provides an introduction to the use of software packages which are useful to mathematics students. The course will provide students with basic skills in the use of *Matlab* for numerical computing and *TeX/LaTeX* for mathematical documents. Only for STEM majors.

MATH 138 College Algebra**credit 3 hrs.**

The course covers rational expressions, roots and radicals, quadratic equations, relations and functions, graph of polynomial and rational functions, zeros and factors of polynomial functions, matrices and determinants, systems of equations and inequalities.

MATH140 Precalculus**credit 4 hrs.**

The course covers exponential and logarithmic functions, linear programming, trigonometry, laws of sine and cosine, trigonometric forms of complex numbers, sequences and counting principles. Prerequisite: MATH 138.

MATH 143 Calculus I**credit 4 hrs.**

This course covers in depth the differential calculus portion of a three-course calculus sequence. Topics include limits, continuity, and derivatives of algebraic and transcendental functions of one variable, with applications of differential calculus to real-world problem areas. Upon completion of this course, students should be able to apply differentiation techniques to algebraic and transcendental functions. An introduction to integration concludes the course. Prerequisite: MATH 140 (Pre-Calculus) or its equivalent.

MATH 144 Calculus II**credit 4 hrs.**

This course is a continuation of Calculus I, covering integration, sequence, and infinite series. It is designed for students working on a degree in science, mathematics, computer science, and those planning on certain types of graduate work. Prerequisite: MATH 143 (Calculus I) or its equivalent.

MATH 230 Linear Algebra**credit 3 hrs.**

The course covers matrices and systems of linear equations: Gaussian elimination, Echelon form, matrix operations, matrix inverse, solution sets of systems of linear equations, real-world applications; vector spaces and linear transformations: vector space, the image space, orthogonal basis, Gram-Schmidt Theorem; determinants and eigenvalue problems; properties of determinants, Cramer rule, characteristic polynomial, Eigenspaces, diagonalization; Eigenvalues and applications: Prerequisite: MATH 144.

MATH 241 Calculus III**credit 4 hrs.**

This course extends ideas of single variable calculus to higher dimensions and is aimed primarily at students whose majors are science, engineering or mathematics. The focus is on multi-dimensional calculus, including the study of functions of several variables, partial derivatives, and optimization problems using various techniques. Topics covered include vectors, vector-valued functions, parametric curves and three dimensional surfaces. Prerequisite: MATH 144.

MATH 233 Introduction to Advanced Mathematics**credit 3 hrs.**

This course will introduce students to logical reasoning and mathematical proofs. Students will make the transition from calculation based mathematics to the theory of mathematics. This course serves as a bridge to advanced topics in mathematics. Prerequisite: MATH 144.

MATH 236 Probability and Statistics ++**(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

This is an introductory course in statistics and covers frequency distributions; graphic representations of frequency distributions; measures of central tendency and variations: Bayes's Theorem; Discrete and continuous distributions, Inferential Statistics. Prerequisite: MATH 140.

MATH 237 Differential Equations I**credit 3 hrs.**

This course addresses covers elementary ordinary differential equations of first order, higher order linear equations, D-operator techniques, and Laplace transform and series method and applications to the physical sciences and engineering. Prerequisite: MATH 144.

MATH 238 Differential Equations II**credit 3 hrs.**

The Course covers theoretical aspects of the solutions of differential equations, proof of the existence and uniqueness of such solutions, power series methods, linear systems of differential equations including the eigenvalue method for homogeneous systems, introduction to nonlinear systems, introduction to partial differential equations and boundary value problems. Prerequisite: MATH 237.

MATH 330 Optimization I**credit 3 hrs**

The new course will give an introduction to linear optimization and to integer linear optimization. Emphasis will be given to model formulation, basic theory solution techniques and algorithms, and to the use of modeling software. Topics covered will include linear programming formulations, the simplex algorithm, duality, and integer programming formulations. This is a course for students at the junior level. Prerequisite: MATH 230.

MATH 332 Optimization II**credit 3 hrs**

This course will provided an integrated view of the theory, algorithms, and the applications of key network optimization problems with applications to several areas including scheduling, transportation, and others. Prerequisite: MATH 330.

MATH 331 Modern Geometry**credit 3 hrs.**

This study presents Euclid geometry: the origin of geometry, axiomatic method; Euclid's first four postulates; Incidence geometry: models, isomorphism of models, projective and affine plane; the discovery of non-Euclidean geometry: Hilbert's axioms, Neutral geometry, Hyperbolic geometry; geometric transformations: applications of geometric problems, motions and similarities, automorphisms of the Cartesian Models in the Poincare Model. Prerequisite: MATH 233.

MATH 334 Complex Variables**credit 3 hrs.**

The course covers the complex plane, functions of a complex variable, Cauchy-Riemann equations, complex integration, theorems of Morera and Liouville, power series, singular points, residues, Laurent expansion, contour integration, and elementary conformal mappings. Prerequisite: MATH 241.

MATH 335 Number Theory**credit 3 hrs.**

This course covers the essential, core material for a number theory course. Topics covered include divisibility, primes, factoring, and greatest common divisors; congruence; Polynomial congruence, the Chinese Remainder Theorem; Diophantine equations; Dirichlet's theorem on primes. Prerequisite: MATH 233.

MATH 336 Discrete Mathematics**credit 3 hrs.**

The course covers logic, propositional logic, predicate logic, proof techniques, mathematical induction, recursion analysis algorithms, recurrence relations, sets and combinations, principle of inclusion and exclusion, permutation and combinations, generating functions, graphs and trees, binary relations and Warshall's algorithm, decision trees, and Hamiltonian circuits, minimal spanning tree. Prerequisite: MATH 144.

MATH 337 Abstract Algebra I**credit 3 hrs.**

This course will serve as a first level introduction to the principles and concepts of the primary structures of algebra: groups, rings, and fields. This course is for students working on a degree in mathematics and for others with the necessary background who are interested. Prerequisite: MATH 233.

MATH 338 Abstract Algebra II**credit 3 hrs.**

This course is a continuation of Abstract Algebra I. The course covers, Ring theory (ideals, polynomials, factorization), Advanced linear algebra (quadratic forms, canonical forms), and Field theory (extensions, Galois theory, solvability in radicals). This course is for students working on a degree in mathematics and for others with the necessary background who is interested. Prerequisite: MATH 337.

MATH 339 History of Mathematics**credit 3 hrs.**

This course introduces students to the historical development of mathematics. Students will be exposed to problem-solving methods and techniques. This course will cover the development of mathematics from early counting to the present.

**MCS 430 Senior Research and Professional Experience
(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

This course provides students with experience in the fields of mathematics and/or computer science and involves on-the-job training in an organization, agency, business or industry. Student must be classified as a junior or senior. The internship assignment must be approved by the Internship Committee of the department. In addition, students will work independently on a research topic of interest to them under the guidance of a faculty member and present their findings at the end of the semester.

MATH 431 Numerical Analysis I**credit 3 hrs.**

This course covers interpolation; approximations; numerical differentiation and integration. Prerequisites: MATH 336, MATH 144, and MATH 126, CSC 138.

MATH 432 Numerical Analysis II**credit 3 hrs.**

This course covers numerical techniques in linear algebra. Numerical solution of transcendental equations, systems of linear equations, Milne's method, Runge-Kutta method, modeling of continuous discrete systems, and approximation to computer based functions, Prerequisite: MATH 431.

MATH 433 Introduction to Partial Differential Equations**credit 3 hrs**

Course Description: This course introduces the basic methods of PDEs guided by applications in the sciences and engineering. Some of the main topics to be covered include; Linear First and second order PDEs, Characteristics, Classification of PDEs, Separation of variables, Fourier series, Heat conduction, vibrating membranes, boundary value problems, Sturm-Liouville problems. Prerequisites: MATH 237 and MATH 238.

MATH 435 Statistical Methods**credit 3 hrs.**

This course is designed to give the students the fundamental ideas of statistical analysis that is not necessarily in a mathematically rigorous fashion. The logic of statistical procedure will be developed without resorting to mathematical derivations or proofs. It is hoped that they will motivate students in pursuing further studies in statistics. The course will cover random variables and their distributions;

samples and sampling distributions, sampling and nonsampling errors; estimation, determination of the sample size, use of statistical software packages; hypothesis testing, relationship between hypothesis testing and confidence interval estimation; hypothesis concerning the population variance and standard deviation; hypothesis testing two populations; analysis of variance, simple regression and correlation, multiple correlation and regression; nonparametric statistics; statistical decision making. Prerequisite: MATH 236.

MATH 436 Applied Probability**credit 3 hrs.**

This course is concerned with the nature, formulation, and analysis of probabilistic situations. The course covers Discrete and Continuous sample spaces and probability; random variables; distributions; independence; expectation and generating functions; Markov chains. (3sch) Prerequisites: MATH 144 and MATH 236.

MATH 437 Mathematical Analysis I**credit 3 hrs.**

This is a study of techniques of proof, sets, functions, structure of real numbers, the completeness axiom, density of rational numbers in real numbers, epsilon-delta argument, sequences to include convergence, limit theorems, monotone sequences and subsequences, continuity of functions, continuity and sequences, differentiation to include definitions and Mean Value Theorem. Prerequisite: MATH 233.

MATH 438 Mathematical Analysis II**credit 3 hrs.**

The course covers sequences (revisited), Bolzano-Weierstrass Theorems, Cauchy sequences, limits at infinity; continuity of functions to be revisited including limits of functions, uniform continuity, and discontinuities, integrals and its properties, the Fundamental Theorem of Calculus, convergence and divergence of infinite series, absolute and conditional convergence, sequences and series of functions, power series. Prerequisite: MATH 437.

MATH 439 Special Topics in Mathematics**(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

This course provides students with topics in areas of mathematics not included in the regular course offerings. Contents and prerequisites vary; written permission to enroll is required. This course serves both to give students an appreciation of mathematics and expose students to different areas of mathematics to spark their interest in further study mathematics topics.

This course provides students with experience in the fields of mathematics and/or computer science and involves on-the-job training in an organization, agency, business or industry. Student must be classified as a junior or senior. The internship assignment must be approved by the Internship Committee of the department. In addition, students will work independently on a research topic of interest to them under the guidance of a faculty member and present their findings at the end of the semester.

PHYSICS AND ENGINEERING PROGRAM**REQUIREMENTS**

Students with a major in the department must complete the required courses in their field. A minimum grade of "C" must be earned in all major courses taken in the major. All incoming Freshman Physics and Engineering majors who have taken College Algebra and Pre-Calculus in high school will be given MATH 138 and MATH 140 exemption tests to determine if they may enroll in MATH 143 Calculus or if they need to take MATH 138 College Algebra. and MATH 140 PreCalculus as prerequisites. Students who did not take College Algebra and Pre-Calculus in high school are required to take MATH 138 College Algebra, and MATH 140 Pre-Calculus before taking MATH 143 Calculus I. Students are advised to follow their programs of study as outlined and to consult with their major area advisors before enrolling in courses.

Required Senior Design Project

EE	418	Senior Design Project I
EE	428	Senior Design Project II
CE	418	Senior Design Project I
CE	428	Senior Design Project II

ENVE	427	Senior Design Project I
ENVE	428	Senior Design Project II

All Physics and Engineering Majors must take STEM 111, STEM 112, and STEM 221.

All Engineering Majors must take the following courses:

ENGR 130 Introduction to Engineering

credit 3 hrs.

This course introduces engineering to students, particularly those who are interested in an engineering profession. It covers engineering ethics, team work, communication skills, and other topics. This course also addresses basic problem solving skills and computing using Matlab. Prerequisite: None

ENGR 321 Engineering Professional Development

credit 2 hrs.

This course will cover skills necessary to prepare engineering students to apply for jobs and enter the technical workforce or graduate school. Topics include development of resumes, cover letters, interview skills, timelines, and requirements for graduate school, internship applications, the importance of professional certifications, and introduction to technical writing, and engineering ethics. Prerequisite: STEM 221 or Permission of Instructor.

ENGR 331 Engineering Economics

credit 3 hrs.

Students will learn the fundamentals of economics related to engineering decision making. Concepts to be covered include manpower, resource, equipment and process selection, costs, cost/benefit analyses, project risk and uncertainty, replacement decisions, and making economic comparisons that include current and projected revenue costs. This course will focus heavily on calculation-based analyses that will include: capital costs, revenue, taxes, appreciation, depreciation, replacement costs, one-time costs, recurring costs, and project scheduling. Prerequisite: Junior or Senior Status.

COMPUTER AND ELECTRICAL ENGINEERING COURSES**EE 231 Circuits I****credit 3 hrs.**

Linear circuit analysis and design course. Topics include fundamental concepts of charge, current, voltage and power; passive and active circuit elements, phasors and impedances; mesh and nodal analysis; Thevenin's and Norton's Theorems; source transformations, and AC power calculations. Prerequisite: MATH 143.

EE 211L Circuits I Lab.**credit 1 hr.**

Students will use equipment such as oscilloscope, function generator, digital meter, and power supply to measure AC and DC voltages and currents in circuits designed with resistors, capacitors and inductors. They also use Multisim to implement and verify the design of circuits containing resistors, capacitors and inductors and make comparison between analytical and measurement results and justify discrepancies between theory and measurements. Corequisite: EE 231

EE 232 Circuits II**credit 3 hrs.**

A continuation of Circuit Analysis I. Additional topics are: Transient response for RL, RC, and RLC circuits, Laplace transforms and circuit theory, Passive and Active filter types, Operational Amplifiers, and Fourier series analysis. Prerequisite: EE 231.

EE 212L Circuits II Lab**credit 1 hr.**

Students will use equipment such as oscilloscope, function generator, digital multimeter, and power supply to measure frequency response and transient analysis in circuits designed with resistors, capacitors and inductors. They also use Multisim to implement and verify the frequency response and transient analysis in circuits designed with resistors, capacitors and inductors and make comparison between analytical and measurement results and justify discrepancies between theory and measurements. Corequisite: EE 232

EE 233 Electronics I**credit 3 hrs.**

Intro to solid state devices: the p-type and the n-type junctions; Diodes and applications; BJT Biasing and small signal analysis; BJT amplification; CMOS Biasing and small signal analysis, CMOS amplification; Switching circuits using Diodes, BJT, and CMOS circuits. Prerequisite: MATH 143 and EE 231.

EE 213L Electronics I Lab**credit 1 hr.**

Students will use equipment such as oscilloscope, function generator, digital multimeter, and power supply to measure voltages and currents in circuits designed using diodes, BJT, and JFET devices. They will use Multisim to implement and verify the design of electronic circuits containing diode, BJT and JFET devices and make comparison between analytical and measurement results and justify discrepancies between theory and measurements. Co-requisite: EE 233.

EE 330 Systems and Signals**credit 3 hrs.**

Analysis of linear systems: classical and modern; Systems and differential equations; Fourier series and transform; Laplace transform and its applications; transfer functions and impulse response; Introduction to analogue filter design. Prerequisite: MATH 144 and EE 232.

EE 331 Instrumentations and Measurements**credit 3 hrs.**

In this course students will be introduced to the International Systems of Units (SI) and use appropriate measurement method and instrument in collecting data. They will also use basic instrumentation equipment such as oscilloscope, function generator, digital multimeter, power supply, and computer – based data acquisition software, to acquire data for further computer processing. Basic operations of instrumentation sensors will be covered. Prerequisite: EE 334

EE 332 Digital Signal Processing**credit 3 hrs.**

Discrete-time systems; Difference equations; Z-transform; Discrete time Fourier transform; and discrete Fourier transform; Frequency spectrum and sampling theorem. Digital filter design; Realization and implementation of Digital filters; Discrete - time systems; design of digital filters; Introduction to random signals and power spectral estimation. Prerequisite: EE 330.

EE 333 Electromagnetics**credit 3 hrs.**

Basic concepts of electrostatics and magnetostatic; boundary conditions for dielectric and magnetic materials; Poisson's and Laplace's equations; time-varying fields and Maxwell equations; plane wave propagation in free space; dielectrics and conductors; transmission lines. Prerequisite: PHYS 244. Corequisite: MATH 241.

EE 334 Electronics II**credit 3 hours**

Theory and Application of linear integrated circuits. Topics include ideal and real operational amplifiers, Frequency response and compensation, active filters, comparators, and wave for generators. Prerequisite: EE 233.

EE 314L Electronics II Lab.**credit 1 hr.**

Students will use equipment such as oscilloscope, function generator, digital multimeter, and power supply to measure AC and DC voltages and currents in amplifier circuits designed with BJT, and JFET transistors. They will use Multisim to implement and verify the design of electronic circuits containing the BJT, and JFET transistors and make comparison between analytical and measurement results and justify discrepancies between theory and measurements. Corequisite: EE 334

EE 427 Senior Design Project I**credit 2 hrs.****(DESIGNATED SERVICE-LEARNING COURSE).**

Planning, design, construction and/or management of an engineering project that handles contemporary engineering problems under the supervision of one or more faculty members. The course allows the student to apply the knowledge attained from the various courses of the undergraduate program to prepare the proper approach of solution to his or her project problem. One lecture per week. Prerequisite: Graduating Senior.

EE 428 Senior Design Project II**credit 2 hrs.****(DESIGNATED SERVICE-LEARNING COURSE)**

Continuation of EE 427. Students are expected to complete their chosen design project. It is required that the student submit a well written report and to defend his or her project in front of faculty and students. Two lectures per week. Prerequisite: EE 427.

EE 431 Communication Systems**credit 3 hrs.**

Spectral analysis and signal transmission channel design; amplitude, Frequency, phase, and pulse modulation systems; Frequency - division and time -division multiplexes systems; digital communication; noise and its effects in modulation systems. Prerequisite: EE 330.

EE 433 Electric Energy and Power Systems**credit 3 hrs.**

Mechanical and Electromagnetic Fundamentals; Three-Phase circuits; transformers; AC machinery fundamentals, synchronous machines, parallel operation of synchronous generators; induction motors, DC motors; transmission lines; power system representation and equations; introduction to power-flow studies; Symmetrical Faults, Unsymmetrical faults and computer based projects will be assigned. Prerequisite: EE 333.

EE 434 Control Systems**credit 3 hrs.**

Control system analysis and design: classical and modern; transfer functions, state-space techniques; time domain analysis and design; Frequency domain analysis and design; stability analysis; prototyping. Prerequisite: EE 330.

EE 435 Applied Electromagnetics**credit 3 hrs.**

Electromagnetic theory applied to problems in the areas of waveguides, radiation, electro-optics and electromagnetic interference and electromagnetic compatibility. This course introduces the transmission lines and its application, plane wave propagation, and satellite communication systems and radar sensors. Prerequisite: EE 333.

EE 439 Special Topics in Electrical Engineering**credit 3 hrs.**

Course covers advanced topics in systems and signals, communication systems and digital signal processing. Prerequisite: Graduating Senior.

CE 231 Digital Logic**credit 3 hrs.**

Basic concepts of the binary system; logic gates; combinational and sequential logic design and analysis. Students will be introduced to the design using Spice and Hardware. Prerequisites: Math138.

CE 211L Digital Logic Lab.**credit 1 hr.**

Students will use Digital Circuit Design Trainers with combinational and sequential digital logic integrated components to design and test logic circuits. They will also use Multisim with combinational and sequential digital logic integrated components to design and test logic circuits and make comparison between analytical and measurement results and justify discrepancies between theory and measurements. Corequisite: CE231.

CE 332 Embedded Systems**(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

Microprocessor architecture, instruction set and operation; assemblers and assembly language programming; write, assemble, link, execute, and debug programs running on a single board microcomputer; interface the single board microcomputer to a variety of peripheral devices using serial and parallel communications; interrupt control; measure the execution times of programs running on a single board microcomputer. Prerequisite: CE241.

CE 427 Senior Design Project I**(DESIGNATED SERVICE-LEARNING COURSE)****credit 1 hr.**

Planning, design, construction and/or management of an engineering project that handles contemporary engineering problems under the supervision of one or more faculty members. The course allows the student to apply the knowledge attained from the various courses of the undergraduate program to prepare the proper approach of solution to his or her project problem. One lecture per week. Prerequisite: Graduating Senior.

CE 428 Senior Design Project II**(DESIGNATED SERVICE-LEARNING COURSE)****credit 2 hrs.**

Continuation of CE 427. Students are expected to complete their chosen design project. It is required that the student submit a well written report and to defend his or her project in front of faculty and students. Two lectures per week. Prerequisite: CE 427.

CE 436 VLSI System Design**credit 3 hrs.**

This course focuses on the design and synthesis of Very Large Scale Integrated (VLSI) chips using CMOS technology for complex digital systems using integrated circuit cells as building blocks and employing hierarchical design methods. Commercial design software will be used for laboratory exercises. An overview of VLSI computer-aided design (CAD) tools and theoretical concepts in VLSI architectures and algorithms will also be discussed. Prerequisites: EE 233 and CSC 337.

CE 439 Special Topics in Computer Engineering**credit 3 hrs.**

Course covers advanced topics in embedded systems and VLSI system design. Prerequisite: Graduating Senior.

PROGRAM OF STUDY IN COMPUTER ENGINEERING

FRESHMAN YEAR					
First Semester		SCH	Second Semester		SCH
ENG 131	Analysis & Argumentation	3	ENG 132	Information, Literacy & Research	3
MATH 143	Calculus I	4	MATH 144	Calculus II	4
CSC 135	Introduction to Programming	3	CSC 136	Algorithm Design I	3
HIST 130	Afr. American History	3		Global and Intercultural	3
ENGR 130	Introduction to Engineering	3	STEM 112	The College Experience II	1
STEM 111	The College Experience	1			
Total		17	Total		14
SOPHOMORE YEAR					
First Semester		SCH	Second Semester		SCH
MATH 237	Differential Equations	3	CSC 231	Assembly Language	3
PHYS 233	Principles of Physics I	3	*CSC 138	Algorithm Design II	3
PHYS 213L	Principles of Physics I Lab	1	PHYS 234	Principles of Physics II	3
*EE 231	Circuits I	3	PHYS 214L	Principles of Physics II Lab	1
*EE 211 L	Circuits I Lab	1	*EE 232	Circuits II	3
*CE 231	Digital Logic	3	*EE 212L	Circuits II Lab	1
*CE 211L	Digital Logic Lab	1	*EE 233	Electronics I	3
STEM 221	Professional Pathw ays Dev.	2	*EE 213L	Electronics I Lab	1
Total		17	Total		18
JUNIOR YEAR					
First Semester		SCH	Second Semester		SCH
*EE 330	Systems and Signals	3		Health and Wellness	2
*CSC 333	Data Structures	3	FR/SP/AR 233	Intermediate Foreign Language	3
MATH 230	Linear Algebra	3	MATH 336	Discrete Mathematics	3
*CSC 337	Computer Org and Architecture	3	MATH 236	Probability and Statistics	3
*EE 334	Electronics II	3	ENG 237	Oral Communication	3
*EE 314L	Electronics II Lab	1		Global and Intercultural	3
ENGR 321	Engineering Professional Dev.	2			
Total		18	Total		17
SENIOR YEAR					
First Semester		SCH	Second Semester		SCH
*EE 431	Communication Systems	3	*CSC 436	Operating Systems	3
*CSC 339	Data Comm and Netw orking	3	*CE 436	VLSI Design	3
*CSC 435	Softw are Engineering	3	*CE 428	Senior Design Project II	2
ENGR 331	Engineering Economics	3	*EE 332	Digital Signal Processing	3
*CE 427	Senior Design Project I	2	*CE 332	Embedded Systems	3
Total		14	Total		14
Total SCH		129			
SCH in Major*		57			

*Major courses require a "C" or better.

PROGRAM OF STUDY IN ELECTRICAL ENGINEERING

FRESHMAN YEAR						
First Semester			SCH	Second Semester		SCH
ENG 131	Analysis & Argumentation	3		ENG 132	Information, Literacy & Research	3
MATH 143	Calculus I	4		MATH 144	Calculus II	4
CSC 135	Introduction to Programming	3		CSC 136	Algorithm Design I	3
HIST 130	Afr. American History	3			Global and Intercultural	3
ENGR 130	Introduction to Programming	3		STEM 112	The College Experience II	1
STEM 111	The College Experience	1				
Total		17		Total		14
SOPHOMORE YEAR						
First Semester			SCH	Second Semester		SCH
MATH 237	Differential Equations	3		MATH 336	Discrete Mathematics	3
PHYS 233	Principles of Physics I	3		FR/SP/AR 233	Intermediate Foreign Language	3
PHYS 213L	Principles of Physics I Lab	1		PHYS 234	Principles of Physics II	3
*EE 231	Circuits I	3		PHYS 214L	Principles of Physics II Lab	1
*EE 211 L	Circuits I Lab	1		*EE 232	Circuits II	3
*CE 231	Digital Logic	3		*EE 212L	Circuits II Lab	1
*CE 211L	Digital Logic Lab	1		*EE 233	Electronics I	3
STEM 221	Professional Pathways Dev.	2		*EE 213L	Electronics I Lab	1
Total		17		Total		18
JUNIOR YEAR						
First Semester			SCH	Second Semester		SCH
MATH 241	Calculus III	4			Health and Wellness	2
MATH 230	Linear Algebra	3		PSYS 332	Dynamics	3
*EE 330	Systems and Signals	3		*EE 333	Electroganetics	3
*EE 334	Electronics II	3		*EE 331	Instrumentations and Measurements	3
*EE 314L	Electronics II Lab	1		MATH 236	Probability and Statistics	3
ENG 237	Oral Communication	3			Global and Intercultural	3
ENGR 321	Engineering Professional Dev.	2				
Total		19		Total		17
SENIOR YEAR						
First Semester			SCH	Second Semester		SCH
*EE 431	Communication Systems	3		*EE 434	Control Systems	3
*CSC 231	Assembly Language	3		*EE 435	Applied Electromagnetics	3
*EE 433	Electric Energy Power Systems	3		*EE 428	Senior Design Project II	2
ENGR 331	Engineering Economics	3		*EE 332	Digital Signal Processing	3
*EE 427	Senior Design Project I	2		*CE 332	Embedded Systems	3
Total		14		Total		14

Total SCH 130
SCH in Major* 54
*Major courses require a "C" or better.

PROGRAM**ENGR 132 Engineering Graphics and Design****credit 3 hrs.**

This course is an introduction to computer-aided engineering graphics, covering fundamentals of CAD, 2D drawings, lettering, and dimensioning, sketching, and geometric construction. The course also involves the application of CAD, Orthographic projection, sectional views, 3D drawing. Prerequisite: None

**ENVE 230 Environmental Engineering Fundamentals I
(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

This course provides knowledge of environmental elements with insight into quantitative analysis and design where applicable. Topics include mass and energy transfer and balances; environmental chemistry; mathematics of growth and decay; risk assessment and management; surface water pollutants, biological and chemical oxygen demands; eutrophication; water supply systems and drinking water standards; wastewater treatment systems and effluent standards; groundwater flow, contaminant transport, and remediation technologies. Prerequisite: ENGR 110, BIO 137, CHEM 137.

ENVE 210L Environmental Engineering Fundamentals Lab**credit 1 hr.**

Students will gain knowledge and skills relevant to analysis of environmental data, and participate in hands-on activities that reinforce the theoretical principles covered in ENVE 230. Laboratory experiments will be designed to accentuate instrumentation and equipment used in combination with physical, chemical, and biological processes that control material fate and transport in environmental and engineered systems. Prerequisites: CHEM 138 and CHEM 118L or Permission of the Instructor.

**ENVE 231 Environmental Engineering Fundamentals II
(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

This course provides knowledge of environmental elements with insight into quantitative analysis and design where applicable. Topics include waste and pollution prevention; remedial and corrective actions at contaminated sites; air pollution sources, control technologies, and atmospheric stability; ambient air quality standards and indoor air quality; global temperature, greenhouse effect and warming potential; global energy balance, carbon emission, and stratospheric ozone depletion; solid waste management, landfill disposal, combustion, composting, and recycling; medical waste; and environmental law, ethics, and justice. Field trips are integrated into the classes. Prerequisite: ENVE 230.

ENVE 233 Engineering Geology**credit 3 hrs.**

This course covers the fundamentals of geology relevant to civil and environmental engineers. Topics include rock and mineral types, soil types and properties, soil and rock mechanics, geological hazard assessment, and slope stability. Instruction is conducted through lecture, laboratory exercises, and case studies. Prerequisite: None

ENVE 330 Environmental Chemistry**credit 3 hrs.**

Students will learn about physical chemistry particularly relevant to aqueous settings. Subjects covered in the class will include: dissolution, precipitation, chemical equilibrium, acid-base reactions, oxidation and reduction reactions, and Henry's Law. Other concepts to be learned include alkalinity, buffering, and water hardness. The laboratory component of the class will focus on measuring such parameters as pH, alkalinity, hardness, and demonstrating concepts such as precipitation, PK_a and PK_b , equilibrium, and oxidation and reduction reactions. Both wet-chemistry and analytic chemistry techniques may be used. Prerequisite: CHEM 138, CHEM 118L, and ENVE 231.

ENVE 331 Introduction to Fluid Mechanics**credit 3 hrs.**

Introduction to fluid mechanics, including hydrostatics and fluid flow. Includes principles of mass, momentum, and energy conservation. Other topics include conduit flow, pump systems, and open channel flow. Laboratory experiments familiarize students with laboratory techniques and instrumentation. Prerequisites: PHYS 233 and MATH 237.

ENVE 311L Fluid Mechanics Lab**credit 1 hr.**

This course is an introduction to fluid mechanics, including hydrostatics and fluid flow. Lab topics include measurement of fluid properties, Bernoulli Equation, and fluid kinematics. Co-requisite: ENVE 331.

ENVE 333 Sustainable Engineering**credit 3 hrs.**

Sustainable engineering involves the responsible use of resources in a way that does not compromise the ability of future generations to meet their own needs. Shifting to sustainable engineering requires review of the short and long-term social, economic, and environmental impacts of engineering solutions. We will examine processes for sustainable land development and resource use, perform life cycle assessments, and review cases of sustainable engineering solutions at the local and global scale. Prerequisite: ENVE 231.

ENVE 337 Groundwater Hydrology**credit 3 hrs.**

This course covers fundamentals of subsurface flow and transport, emphasizing the role of groundwater in the hydrologic cycle, the relation of groundwater flow to geologic structure, and the management of contaminated groundwater. The class includes laboratory and computer demonstrations. Prerequisite: ENVE 331.

ENVE 427 Senior Design Project I**DESIGNATED SERVICE-LEARNING COURSE)****credit 2 hrs.**

Planning, design, construction and/or management of an engineering project that handles contemporary engineering problems under the supervision of one or more faculty members. The course allows the student to apply the knowledge attained from the various courses of the undergraduate program to prepare the proper approach of solution to his/her project problem. Prerequisite: Graduating Senior.

ENVE 428 Senior Design Project II**(DESIGNATED SERVICE-LEARNING COURSE)****credit 2 hrs.**

This course is a continuation of ENVE 427. Students are expected to complete their chosen design project. It is required that the student submit a well written report and to defend his/her project in Front of faculty, staff and students. Prerequisite: ENVE 427.

ENVE 430 Environmental Microbiology**credit 3 hrs.**

This course will cover microbially-mediated nutrient cycling in the environment, especially the Carbon, Nitrogen, Oxygen, and Sulfur cycles. In addition, the course will also cover microbial kinetics, aerobic vs. anaerobic processes, the role of microbes in wastewater treatment, and bioprocess engineering. Several lab exercises focused on culture-dependent and culture-independent identification of bacteria will be covered. Prerequisite: Bio 137.

ENVE 431 Soil and Groundwater Pollution**Remediation and Site Assessment****credit 3 hrs.**

This course will cover common pollutants of soil and groundwater associated remediation technologies used by environmental practitioners, including pump and treat, chemical oxidation/ reduction and bioremediation. The course will also contain a unit on assessment of contaminated sites. Prerequisites: ENVE 231 and ENVE 337.

PROGRAM OF STUDY IN ENVIRONMENTAL ENGINEERING

FRESHMAN YEAR

<i>First Semester</i>			<i>SCH</i>	<i>Second Semester</i>			<i>SCH</i>
ENG 131	Analysis & Argumentation	3		ENG 132	Information, Literacy & Research	3	
MATH 143	Calculus I	4		MATH 144	Calculus II	4	
BIO 137	Principles of Biology I	3		ENGR 132	Engineering Graphics and Design	3	
BIO 117L	Principles of Biology I Lab	1		HIST 130	Afr. American History	3	
ENGR 130	Introduction to Engineering	3			Global and Intercultural	3	
STEM 111	The College Experience	1		STEM 112	The College Experience II	1	
Total			15	Total			17

SOPHOMORE YEAR

<i>First Semester</i>			<i>SCH</i>	<i>Second Semester</i>			<i>SCH</i>
MATH 237	Differential Equations	3		CHEM 138	Principles of Chemistry II	3	
*ENVE 230	Env. Engineering Fund I	3		CHEM 118L	Principles of Chemistry II Lab	1	
*ENVE 210L	Env. Engineering Fund I Lab	1		PHYS 234	Principles of Physics II	3	
CHEM 137	Principles of Chemistry I	3		PHYS 214L	Principles of Physics II Lab	1	
CHEM 117L	Principles of Chemistry I Lab	1		*ENVE 231	Env. Engineering Fund II	3	
PHYS 233	Principles of Physics I	3		MATH 236	Probability and Statistics	3	
PHYS 213L	Principles of Physics I Lab	1			Health and Wellness	2	
STEM 221	Professional Pathways Dev.	2					
Total			17	Total			16

JUNIOR YEAR

<i>First Semester</i>			<i>SCH</i>	<i>Second Semester</i>			<i>SCH</i>
ENG 237	Oral Communication	3		*ENVE 330	Environmental Chemistry	3	
*ENVE 233	Engineering Geology	3		*ENVE 337	Groundwater Hydrology	3	
*ENVE 331	Intro to Fluid Mechanics	3		PHYS 332	Dynamics	3	
*ENVE 311L	Fluid Mechanics Lab	1		FR/SP/AR 233	Intermediate Foreign Language	3	
MATH 241	Calculus III	4			Global and Intercultural	3	
PHYS 331	Statics	3					
ENGR 321	Engineering Professional Dev.	2					
Total			19	Total			15

SENIOR YEAR

<i>First Semester</i>			<i>SCH</i>	<i>Second Semester</i>			<i>SCH</i>
*ESC 230	Solid Hazd. Waste Mgt	3		*ENVE 428	Senior Design Project II	2	
*ESC 439	Water/Wastewater Treatment	3		*ENVE 431	Soil and GW Pollution Remed.	3	
*ESC 419	Water/Wastewater Treatment Lab	1		*ENVE	ENVE Elective	3	
*ENVE 427	Senior Design Project I	2		STEM	STEM Elective	3	
PHYS 334	Thermal Physics	3		*ESC 331	Air Pollution Control	3	
ENGR 331	Engineering Economics	3					
Total			15	Total			14

Total SCH 128

SCH in Major* 40

*Major courses require a "C" or better.

SCHOOL OF ARTS AND SCIENCES**Courses in Transportation Engineering and Logistics Studies****TRP 230 Introduction to Transportation****credit 3 hrs.**

This course will introduce the student to the fundamentals of transportation engineering – From planning and design to operations. The multimodal nature of transportation will be demonstrated by studying non-highway modes. The relationship of transportation to other disciplines – even disciplines outside engineering – will become clear. Perhaps most important, the student will see how a transportation engineer can – and should – practice the profession in today's world. Prerequisite: MATH 143 or Permission of the instructor.

TRP 330 Internship**credit 3 hrs.**

Internship integrates classroom study with planned and supervised experiences in business, government, and social institutions outside the formal classroom environment. Field work experiences must be appropriate and lend themselves to direct supervision by an assigned coordinator. If field work spaces cannot be secured off campus, research/other positions at the College will be used to provide the equivalent experiences necessary to fulfill this requirement. Additionally, a senior research paper will be written.

TRP 331 Transportation Planning**credit 3 hrs.**

The course will help students focus on transportation planning and analysis methods. The following transportation topics will be covered: (a) transportation problems, (b) transportation data, (c) transportation planning tools for alternatives analysis, (d) behavioral basis of transportation planning models, and (e) interactions among stakeholders that include local, regional and state officials, citizens and interest groups. Overall, students will have a chance to learn about transportation models and also contribute ideas to real-life transportation projects. Prerequisite: TRP 230 or Permission of the instructor.

TRP 332 Transportation Policy and Regulation Analysis**credit 3 hrs.**

This course will cover the relationship between land use and transportation, landmark transportation planning-related policies, traditional four-step planning process and the respective mathematical models and algorithms, noise and air quality issues, and transportation systems capacity analysis. Prerequisite: TRP 230 or Permission of the Instructor.

TRP 333 Supply Chain Management**credit 3 hrs.**

Design and management of systems that coordinate information and material flows within and between firms in a supply chain. Addresses planning basics, system alternatives, and advanced value stream synchronization. Management activities and models in the areas of sourcing, inventory management, and logistics that help frame, structure, and solve decisions that pertain to various aspects of supply chain management. Prerequisite: Permission of the Instructor.

TRP 334 Hazardous Material Transportation**credit 3 hrs.**

The maintenance and cleaning of transportation vehicles such as trucks, automobile, and rail car can result in broad array of contaminants in wastewater, which can affect the drinking systems. This course will tackle environmentally friendly and sustainable methods for cleaning and maintenance without harming the environment. Prerequisite: TRP 230 or Permission of the Instructor.

TRP 335 Traffic Engineering**credit 3 hrs.**

This course deals with the technical aspects of traffic engineering. It covers the analytical procedures and computational methods employed in a wide variety of tasks related to traffic operations and control. A person who completes this course will be able to identify operational problems to carry out traffic engineering studies and evaluate alternative solutions. Prerequisite: TRP 230 or Permission of the Instructor.

TRP 337 Highway Design**credit 3 hrs.**

The course aims to provide a basic understanding of highway design principles. The geometric design portion will focus on the safety, economic and operational repercussions of alternative design strategies and standards. Pavement design will be treated in the context of a pavement management system. Prerequisite: TRP 230 or Permission of the Instructor

TRP 418 Senior Design Project I**(DESIGNATED SERVICE-LEARNING COURSE)****credit 1 hr.**

Planning, design, construction and/or management of an engineering project that handles contemporary engineering problems under the supervision of one or more faculty members. The course allows the student to apply the knowledge attained from the various courses of the undergraduate program to prepare the proper approach of solution to his or her project problem. One lecture per week.

SCHOOL OF ARTS AND SCIENCES

Prerequisite: Graduating Senior.

TRP 428 Senior Design Project II**(DESIGNATED SERVICE-LEARNING COURSE)**

credit 2 hrs.

Continuation of TRP 418. Students are expected to complete their chosen design project. It is required that the student submit a well written report and to defend his or her project in front of faculty and students. Two lectures per week. Prerequisite: TRP 418.

TRP 432 Transportation System Environmental Analysis

credit 3 hrs.

This course will cover the impact and effect of the transportation industries on the environment. Sectors such as the air, bulk haulage, and maritime, commercial and private transportation will be studied in reference to fuel consumption, fuel type, and emissions. Alternative fuel and sustainable transportation will also be discussed. Prerequisite: TRP 230 or Permission of the Instructor.

TRP 433 Application of GIS and GPS in Transportation

credit 3 hrs.

This course is designed to introduce students to many aspects of a Geographical Information System (GIS) and Global Positioning System (GPS). The course includes basic GPS concepts, spatial data types, modeling, and management in GIS; theory, operation, application of GPS, and use of these technologies to solve transportation problems. Prerequisite: TRP 335 or Permission of the Instructor.

TRP 434 Traffic Flow Theory

credit 3 hrs.

This course explores relations among speed, density, and flow of vehicular traffic; deterministic as well as stochastic models of traffic flow; and applications of traffic flow theory to solution of traffic problems. Prerequisite: TRP 335 or permission of the Instructor.

TRP 435 Intelligent Transportation Systems

credit 3 hrs.

The purpose of this subject is to introduce students to the basic elements of Intelligent Transportation Systems (ITS), focusing on technological, systems and institutional aspects. Topics include advanced traveler information systems; transportation network operations; commercial vehicle operations and intermodal freight; public transportation applications; ITS and regional strategic transportation planning, including regional architectures: ITS and changing transportation institutions, ITS and safety, ITS as a technology deployment program, research, development and business models, ITS and sustainable mobility, travel demand management, electronic toll collection, and ITS and road-pricing. Prerequisite: TRP 230 or Permission of the Instructor.

TRP 436 Simulation Studies in Transportation

credit 3 hrs.

This course covers modeling and simulation principles with applications to transportation engineering. Students will use simulation tools (e.g., VISSIM, Synchro) and conduct studies to address current research issues for transportation systems. It covers modeling approaches with a focus on continuous and discrete simulation, and surveys applications for complex systems across a variety of engineering domains. Prerequisite: TRP 335 or Permission of the Instructor.

TRP 437 Traffic Safety

credit 3 hrs.

The course examines how death, injury and property damage and the public perception of risk detract communities from achieving their goals. The specific issues relate to transportation safety goals, relevant frameworks, and the selection of safety countermeasures and their evaluation in terms of specific criteria. We will discuss the emerging concepts in safety such as "Safe Communities" and Intelligent Transportation Systems (ITS) countermeasures. Prerequisite: TRP 335 or Permission of the Instructor.

TRP 438 Freight Logistics

credit 3 hrs.

In today's business environment, the creation of customer value is a key driver of competitive advantage. At the enterprise level, the design of the value chain is intimately linked with the management of a supply chain. An effective supply chain must be configured to deliver customer value while also maintaining crucial cost advantages. To minimize system-wide costs, firms increasingly rely on new tools for modeling the full supply chain to integrate the firm's logistics and operations. Prerequisite: TRP 230 or Permission of the Instructor.

EC 431 Urban Economics

credit 3 hrs.

This course reinforces the microeconomic tools necessary for understanding, analyzing, and managing transportation firms and industries. The subjects covered will include costs, pricing behavior, inter-modal competition, and strategic decision making. Prerequisite: EC 130 or Permission of the Instructor.

MGT 435 Advanced Logistics

credit 3 hrs.

SCHOOL OF ARTS AND SCIENCES

This course will offer in-depth analytical tools for supply chain management, including linear programming, manufacturing procedures, network analysis, inventory management, location theory, etc. The course will comprise computer applications, case studies and seminars. Prerequisites: TRP Freight Logistics, MGT 331 or Permission of the Instructor.

PHYSICS COURSES

ENGR 130 Introduction to engineering credit 3 hrs.

This course introduces engineering to students, particularly those who are interested in an engineering profession. It covers engineering ethics, team work, communication skills, and other topics. This course also addresses basic problems solving skills and computing using Matlab. Prerequisite: None

ENGR 132 Engineering Graphics and Design credit 3 hrs.

This course is an introduction to computer-aided engineering graphics, covering fundamentals of CAD, 2D drawings, lettering, and dimensioning, sketching, and geometric construction. The course also involves the application of CAD, Orthographic projection, sectional views, 3D drawing. Prerequisite: None

PHYS 140 General Earth Science credit 4 hrs.

This course is an introductory survey of the earth and its environment for the non-science major. Subjects include physical and historical geology, meteorology, oceanography, planet earth, and the solar system. Prerequisite: None

PHYS 131 General Physical Science credit 3hrs.

General Physical Science is an integrated basic survey of the physical sciences including physics, chemistry, geology, astronomy and meteorology for the non-science major. Prerequisite: None

PHYS 111L General Physical Science Lab credit 1 hr.

In this Lab. students perform introductory level experiments in physics, chemistry and geology

PHYS 231 General Physics I credit 3 hrs.

This course covers the fundamentals of physics including mechanics, waves, and heat. Prerequisites: MATH 138 and MATH 140.

PHYS 211L General Physics I Lab. credit 1 hr.

Students perform experiments in fundamentals of physics including mechanics, waves and thermal physics. Corequisite : PHYS 231

PHYS 232 General Physics II credit 3 hrs.

A continuation of general physics I. The course covers electricity, magnetism, light, and an introduction to modern physics. Prerequisite: PHYS 231

PHYS 212 General Physics II Lab. credit 1 hr.

Students perform experiments in electricity, magnetism, and light. Corequisite: PHYS 232

PHYS 233 Principles of Physics I credit 3 hrs.

(SERVICE –LEARNING REQUIREMENT)

This is a Calculus based introduction to principles of mechanics, wave motion, and thermal physics. Prerequisite: MATH 143.

PHYS 213 Principles of Physics I Lab. credit 1 hr.

Students perform experiments in mechanics, waves, and thermal physics. Corequisite: Phys 233

PHYS 234 Principles of Physics II credit 3 hrs.
(DESIGNATED SERVICE-LEARNING COURSE)

A continuation of Principles of Physics, topics covered includes electricity and magnetism, light and optics. Prerequisite: PHYS 233.

PHYS 214 Principles of Physics II Lab.**credit 1 hr.**

Students perform experiments in electricity, magnetism, light and optics. Corequisite: Phys 234

PHYS 331 Statics**credit 3 hrs.**

This course covers the principles of statics including vector calculus, distributed forces, equilibrium of rigid bodies, trusses, Frames, beams, and various types of Fiction. Prerequisites: Math 143; Corequisite PHYS 243.

PHYS 332 Dynamics**credit 3 hrs.**

This course covers the principles of dynamics, including particles dynamics, work and energy, harmonic motion, systems of particles, moving coordinate systems, and rigid body motion.. Prerequisites MATH 143; Corequisite: PHYS 233.

PHYS 333 Principles of Physics III**credit 3 hrs.**

This is an introduction to modern physics including relativity, quantum theory, atomic, nuclear and solid state physics. Prerequisites: Phys 234.

PHYS 334 Thermal Physics**credit 3 hrs.****(DESIGNATED SERVICE-LEARNING COURSE)**

This course covers thermodynamic processes, the first and second laws, enthalpy, entropy, Carnot cycle, principles of equilibrium, thermodynamic potential, kinetic theory and introductory statistical mechanics. ~~Three 1-hour lecture periods.~~ Prerequisites: PHYS 233.

PHYS 335 Analytical Mechanics**credit 3 hrs.**

This course covers Newton's laws of motion applied to particle dynamics, systems of particles, and rigid bodies. Introduction to Lagrange's equations, tensor algebra, and analytical techniques such as approximations, expansions, and dimensional analysis. Prerequisite: PHYS 233, Corequisite Math 241.

PHYS 336 Electricity and Magnetism**credit 3 hrs.****(DESIGNATED SERVICE-LEARNING COURSE)**

This is a study of advance treatment of electrostatic fields, dielectrics, steady current, electromagnetic induction, magnetic fields, magnetic materials, electromagnetic waves and Maxwell's equations. Prerequisite: PHYS 234; Corequisite: MATH 241.

PHYS 337 Radiation Physics**credit 3 hours**

Topics covered include the atomic nucleus, radioactivity, radioactive decay, interaction of radiation with matter, gas, and scintillation counters, and semiconductor detectors. Prerequisites: PHYS 333

PHYS 338 Modern Electronics**credit 3 hrs.**

This course covers the fundamentals of semiconductor electronics, including D.C. and A. C. circuits' theory, diodes, transistors, other semiconductor devices, amplifier circuits and integrated circuits. Prerequisites: Phys 234.

PHYS 430 Directed Individual Study**credit 3 hrs.**

Students engage in directed intensive training and research in the areas of their professional interest. Students may also engage in on-the-job training in government agencies or industrial companies. Prerequisite: Permission of the Instructor.

PHYS 431 Modern Physics I**(DESIGNATED SERVICE-LEARNING COURSE)****credit 3 hrs.**

This course covers advance treatment of relativity, quantum effect, and structure of atoms. Prerequisite: PHYS 244.

PHYS 432 Modern Physics II**credit 3 hrs.**

A continuation of Modern Physics I, the course includes nuclear physics, molecular physics, solid state physics, and elementary particles. A senior research paper is required. Prerequisite: PHYS 431.

PHYS 433 Advanced Mechanics**credit 3 hrs.**

This course covers advanced classical mechanics, including generalized coordinates and Lagrangian and Hamiltonian dynamics. Prerequisite: PHYS 335.

SCHOOL OF ARTS AND SCIENCES**PHYS 444 Advanced Modern Physics Laboratory****credit 4 hrs.**

This course covers advanced laboratory experiments, projects, and techniques in modern physics. Prerequisite: PHYS 431.

PHYS 436 Introduction to Quantum Mechanics**credit 3 hrs.**

This course introduces general principles of quantum mechanics, physical operators, wave equation and perturbation theory. Prerequisite: PHYS 431.

PHYS 438 Solid State Physics**credit 3 hrs.**

This course is an introduction to solid state physics, covering crystal structure, band theory, semiconductors, and magnetism. Prerequisite: PHYS 431.

PHYS 435 Optics**credit 3 hrs.**

This course covers geometrical and physical optics, the wave nature of light, lenses and optical instruments, interferometers, gratings, thin films, and polarization. Prerequisite: PHYS 234.

FRESHMAN YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
ENG 131	Analysis & Argumentation	3	ENG 132	Information, Literacy & Research	3
MATH 143	Calculus I	4	MATH 144	Calculus II	4
CSC 135	Introduction to Programming	3	CSC 136	Algorithm Design I	3
ENGR 130	Introduction to Engineering	3	ENGR 132	Engineering Graphics and Design	3
	Heath and Wellness	2	HIST 130	Afr. American History	3
STEM 111	The College Experience	1	STEM 112	The College Experience II	1
Total		16	Total		17

SOPHOMORE YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
MATH 237	Differential Equations	3	CHEM 138	Principles of Chemistry II	3
CSC 138	Algorithm Design II	3	CHEM 118L	Principles of Chemistry II Lab	1
CHEM 137	Principles of Chemistry I	3	*PHYS 234	Principles of Physics II	3
CHEM 117L	Principles of Chemistry I Lab	1	*PHYS 214L	Principles of Physics II Lab	1
*PHYS 233	Principles of Physics I	3	MATH 238	Differential Equations II	3
*PHYS 213L	Principles of Physics I Lab	1	ENG 237	Oral Communication	3
STEM 221	Professional Pathways Dev.	2		Global and Intercultural	3
Total		16	Total		17

JUNIOR YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
MATH 241	Calculus III	4	MATH 236	Probability and Statistics	3
*PHYS 331	Statics	3	*PHYS 332	Dynamics	3
*PHYS 333	Principles of Physics III	3	*PHYS 336	Electricity and Magnetism	3
*PHYS 334	Thermal Physics	3	FR/SP/AR 233	Intermediate Foreign Language	3
PHIL 330	Critical Thinking and Logic	3		Global and Intercultural	3
Total		16	Total		15

SENIOR YEAR

<i>First Semester</i>		<i>SCH</i>	<i>Second Semester</i>		<i>SCH</i>
MATH 230	Linear Algebra	3	*PHYS 436	Intro to Quantum Mechanics	3
*PHYS 431	Modern Physics I	3	*PHYS 432	Modern Physics II	3
*PHYS 435	Optics	3	*PHYS 444	Adv. Modern Physics Lab	4
	Elective	6	*PHYS 338	Modern Electronics	3
				Electives	3
Total		15	Total		16

Total SCH 128

SCH in Major* 42

*Major courses require a "C" or better.