
ARMY ROTC COURSES DESCRIPTIONS

MSL 1010: Foundations of Officership.

3

credits Designed to generate interest and further study into military science and the U.S. Army. Must be taken concurrently with MSL 1010L.

MSL 1020: Basic Leadership.

3

credits Designed to generate interest and further study into military science and the U.S. Army plus build upon the experiences learned in MSL 1010. Must be taken concurrently with MSL 1020L.

MSL 2010: Leadership and Teamwork.

3

credits Examines how to build successful teams, various methods for influencing action, effective communication in setting and achieving goals, the importance of timing the decision, creativity in the problem solving process, and obtaining team buy-in through immediate feedback. Students apply, practice, and experience leadership principles. Must be taken concurrently with MSL 2010L.

MSL 2020: Individual Leadership Studies.

3 credits

Examines how to build successful teams, various methods for influencing action, effective communication in setting and achieving goals, the importance of timing the decision, creativity in the problem solving process, and obtaining team buy-in through immediate feedback. Must be taken concurrently with MSL 2020L.

MSL 3010: Leadership and Problem Solving.

3 credits

Introduction to the U.S. Army's organization and small unit operations and decision-making. The course is designed to enable a student with no prior military or cadet experience to quickly learn the essential cadet knowledge and skills necessary for successful performance as an MSL III cadet. Emphasis will be on developing leadership skills through operations orders, troop leading procedures, small-unit operations and basic soldier skills. Must be taken concurrently with MSL 3010L.

MSL 3020. Leadership and Ethics.

3 credits

Expounds upon concepts and lessons learned during MSL 3010. The purpose is to reinforce knowledge gained and continue to prepare students for roles as small-unit leaders in a mentally

and physically challenging environment. Emphasis is on developing leadership skills through extensive exposure to operations orders and troop leading procedures, application of small-unit skills, rehearsal of battle-drills, and small-unit tactics, and an introduction to military small-group dynamics. Must be taken concurrently with MSL 3020L.

MSL 4010. Military Science and Leadership.

3 credits

Designed to enable cadets to make informed decisions to prepare for Army careers. Lessons concentrate on Army operations, training management, communications, leadership skills, and support the beginning of the final transition from cadet to lieutenant. Must be taken concurrently with MSL 4010L.

MSL 4020. Officership.

3 credits

Students will complete a semester long Senior Leadership Project that requires them to plan, organize, collaborate, analyze, and demonstrate their leadership skills. The primary focus of instruction is to provide a foundation from which a cadet transitions to his/her commission as a second lieutenant in America's Army and officer corps. This course enables students to attain knowledge and proficiency in Ethics, Military Law, Personnel Administration, and Supply Management. Must be taken concurrently with MSL 4020L.

NAVAL ROTC COURSE DESCRIPTIONS

MNAS 101: Naval Orientation.

3 credits

Provides an introduction to the United States Navy and Marine Corps including organization, traditions and regulations, career opportunities and shipboard safety and emergency procedures. Also covers study and test-taking skills and develops writing ability throughout the semester.

MNAS 102: Seapower and Maritime Affairs.

3 credits

Provides an understanding of broad principles, concepts, and elements of seapower and maritime affairs. Examines the history and modern political applications of seapower as it relates to the United States and other nations.

MNAS 201: Naval Weapons Systems.

3 credits

Introductory study of engineering principles using Naval Weapon Systems as examples for study. Students develop a fundamental working knowledge of weapon system components and subsystems and their contribution to the overall system. Topics covered include radar and underwater sound propagation theory, weapon capabilities and the role that they play in the Navy's mission.

MNAS 202: Naval Engineering.

3 credits

Provides an introduction to engineering using naval propulsion plants as examples for study. Subjects covered include thermodynamics, the steam cycle (both conventional and nuclear), internal combustion and gas turbine engines, electrical distribution systems, hydraulics, refrigeration cycles and basic naval architecture including stability and buoyancy.

MNAS 301: Navigation I.

3 credits

Provides theory and techniques of navigation at sea. Areas of emphasis include: dead reckoning, piloting, rules governing waterborne traffic and utilization of nautical charts, tables and navigational instruments such as the sextant. Advanced electronic navigation systems are also introduced.

MNAS 302: Navigation II.

3 credits

Provides an understanding of the elements and principles of naval operations. Introduced are command responsibility, tactical doctrine, communication procedures, and relative movement problems. Practical applications include a review of navigation techniques.

MNAS 310: Evolution of Warfare.

3 credits

Studies forms of warfare practiced by past and present military strategists on economical, psychological, moral, political, and technological factors. Selected campaigns are studied, with emphasis on the leadership, evolution of tactics, weaponry, and principles of war. Warfare strategies, policies and doctrines are studied from prehistoric periods to the dawn of the modern era.

MNAS 401: Naval Leadership and Management.

3 credits

Theme is “junior officer as a manager, organizational decision maker and leader.” Provides a comprehensive advanced level study of organizational behavior and management. Major behavioral theories and their practical applications are explored in detail. Other topics developed include values, ethics, decision-making, communication, responsibility, authority, accountability, and total quality leadership (TQL).

MNAS 402: Naval Leadership and Ethics.

3 credits

As the capstone course of the naval science curriculum, it discusses and develops an overview of the duties, responsibilities, and expectations of a junior naval officer. Includes the study of significant features of military law, values, ethics, leadership, divisional maintenance administration and training. Also covers elements of personal affairs such as finance, orders, benefits, travel and related topics.

MNAS 420: Amphibious Warfare.

3 credits

Provides an understanding of the importance of projecting sea power ashore with emphasis placed on the Battle of Marathon in Athens in 410 B.C., the Gallipoli campaign and the Battle of Inchon in 1950. The student will gain an appreciation for the application for Amphibious Warfare from the pre-modern age to contemporary times. Strategic concepts and tactical considerations will be studied in planning specific operations and amphibious landings.

**MNAS 110L/111L, 210L/211L, 310L/311L,
and 410L/411L: Naval Science Drill.**

0 credit

Leadership laboratory taken by all midshipmen. Students receive a grade of “P” for satisfactory completion. Satisfies core curriculum requirement for physical education.

AS 1111: Leadership Laboratory. **1 credit**

Introduction to the customs, traditions, and courtesies of the Air Force through drill and ceremonies, guest speakers, physical fitness activities, sports, and base visits. Grading is pass/fail only. *Corequisite: AS1110.*

AS 1120: Foundations of the AF II. **1 credit**

Continues the study of the US Air Force mission, opportunities and benefits, and military history. Course also emphasizes the progression from cadet to Air Force officer, and the preparation for and application of written and oral interpersonal communication skills.

AS 1121: Leadership Laboratory. **1 credit**

Continuation of CAS 1111. Emphasis on role and responsibilities of an Air Force junior officer. Air Force customs and courtesies, drill and ceremonies, and introduction to the military environment. Grading is pass/fail only. *Corequisite: AS 1120.*

AS 2210: US Air and Space Power I. **1 credit**

An introduction to the study of air power and how technology has affected the growth of air power. The course is developed from a historical perspective, starting from before the Wright Brothers and continuing through the interwar years of 1919-1937. A section on communication will also be taught so one can better appreciate the importance of communication in the Air Force. This course will also initiate one's preparation for field training.

AS 2211: Leadership Laboratory. **1 credit**

Emphasizes development of techniques used to direct and inform. Students are assigned leadership and management positions in the CAS 1111 program described above. Grading is pass/fail only. *Corequisite: AS 2210*

AS 2220: US Air and Space Power II. **1 credit**

Continues the history of air power since the Korean War, with emphasis on the US Air Force. Includes the role of air forces in conflicts, and the effect of space-age technology on air power. Also examines the peaceful employment of US air power. *Prerequisite: None.*

AS 2221: Leadership Laboratory. **1 credit**

Continuation of AS 2211. Adds a special program in preparation for Field Training. Grading is pass/fail only. *Corequisite: AS 221.1.*

AS 3310: Leadership Studies I. **3 credits**

Principles, styles, and perspectives of leadership and management with emphasis placed on their application to today's Air Force. Case studies are used to examine Air Force management situations. *Prerequisite: None.*

AS 3311: Leadership Laboratory. **1 credit**

Supervisory practice and exercise of leadership functions in controlling and directing activities of the cadet corps. Practical development of leadership potential. Grading is pass/fail only. *Corequisite: AS 3310.*

AS 3320: Leadership Studies II.

3 credits

Continuation of AS 3321 with emphasis now on leadership. Leadership concepts and professional ethics explored through the use of case studies and interactive class exercises. Communications skills are also emphasized.

AS 3321: Leadership Laboratory.

1 credit

Continues AS 3311 emphasis on supervisory and leadership skills. Emphasis on advantages of an Air Force career. Grading is pass/fail only. *Corequisite CAS 3310.*

AS 4410: National Security Affairs.

3 credits

A study of the environment of current and historical civil military relations and the relations of the branches of government in shaping national security policy. Emphasis is on integration of current events into course topics. Students are asked to challenge current ideas on National Security Policy. Introduces the student to the problems and issues confronting American national security and the process by which American national security policy is formulated.

AS 4411: Leadership Laboratory.

1 credit

Exercise of management functions in planning, supervising, and directing cadet corps activities. Students acquire proficiency in military leadership skills. Grading is pass/fail only. *Corequisite AS 4410.*

AS 4420: Preparation for Active Duty.

3 credits

Study of selected issues that affect the military today. Topics include the laws of armed conflict, the military legal system, aerospace doctrine, military as a profession, officership, and the transition from civilian to military life. Communications skills are emphasized.

AS 4421: Leadership Laboratory.

1 credit

Continues AS 4411. Emphasis on developing top-level management skills. To include the planning, organizing, and implementation of Aerospace Studies military training. Grading is pass/fail. *Corequisite: AS 4420.*

CORE COURSE DESCRIPTIONS

COMPUTER LITERACY

3 credits

CCIS 100: Information Technology and Computer Applications.

A hands-on introduction to personal computer concepts and productivity applications. Computer concepts include basic architecture, the Internet, and windows. Productivity applications include word processing, spreadsheets, presentation, graphics, and relational data base usage.

COLLEGE COMPOSITION

6 credits

CENG 105 and 106: College Composition I and II.

A one-year course emphasizing development of college-level writing skills. In CENG 105, students write multiparagraph essays, learning the importance of thesis, topic sentence and paragraph development, along with how purpose and audience control the focus of the idea. During CENG 106, students continue to work on multiparagraph themes, including the persuasive essay and the research paper. A minimum grade of "C" is required for each course. *CENG 105 is prerequisite to CENG 106.* These courses may not be taken simultaneously. A writing proficiency examination is administered as a requirement for exiting CENG 106.

FOREIGN LANGUAGE/CULTURE.

6 credits

Two courses in the same Foreign Language at the Intermediate (200) level. Courses emphasize communication proficiency using the multimedia approach (Language in Action) and history and culture of the societies in which the language is spoken. A one-hour per week laboratory is required.

HISTORY

CHIS 201 and 202: The United States, Africa and the World I and II.

6 credits

These courses focus on the historical foundations and the complex evolutions over time of our modern world. CHIS 201 begins with the African origins of humankind and then examines the development of selected civilizations up to 1815. CHIS 202 places strong emphasis on the United

States and its emergence as a world power. Other topics include colonialism, independence movements, feminism, labor movements and world war. In some programs, CHIS 211 and 212 may be substituted.

CHIS 211/212: History of the United States.

3 credits

These courses cover the social, political, and economic development of American life and institutions with special emphasis on the development of American nationality. The first semester covers the period from 1492 to 1865; the second, the period from 1865 to the present.

HUMANITIES

3 credits

One of the following courses:

CART 150: Art Appreciation.

3 credits

Designed to provide students understanding and appreciation of the art forms of the world as well as knowledge of the social and intellectual influences affecting artistic forms. Lectures, discussions and visual aids are utilized to survey painting, sculptures, architecture and other forms of art from different cultures.

CHUM 228: Interdisciplinary Humanities I.

3 credits

This course focuses on the diversity of cultural experiences primarily in the United States. The class uses readings from a wide variety of disciplines, from anthropology and sociology to literature, philosophy, religion, and art. Students will learn to think critically in this class through writing short papers and classroom discussion. This section concentrates on the issues of myth and the making of history, the natural and unnatural, identity, individual and community and religion and belief systems.

CHUM 230: Interdisciplinary Humanities II.

3 credits

This course focuses on the diversity of cultural experiences primarily in the United States. The class uses readings from a variety of disciplines, from anthropology and sociology to literature, philosophy, religion, and art. Students will learn to think critically in this class through writing short papers and classroom discussion. This section concentrates on the issues of education, work and economy, state and nationalism, social change, and pop culture.

CMUS 120: Music Appreciation.

3 credits

The course provides experiences in critical listening skills and introduces musical elements, forms, and Western historical periods from a multicultural perspective. Introduces the major musical eras and composers with an emphasis on aural perception of works. Includes the multifaceted musical contributions of African-American and diverse ethnic cultures of the world. No musical background or training is assumed or required. Students may substitute CMUS 119 World Music.

CMUS 119: World Music.

3 credits

This course focuses on music of representative world cultures and develops an understanding of musical style, aesthetic viewpoints, and the function that music fulfills in diverse societies. Students will encounter not only new musical expressions, but also the philosophies and world views that accompany the music.

CSTA 252: Theater Appreciation. **3 credits**
The course examines how theater functions as an art form through the exploration of the interrelationships of the audience, performer and space. Designed to study the nature of the theater experience by analyzing principles and practices that govern contemporary theater. Attendance at several professional theatrical performances may be required.

LITERATURE **3 credits**
One of the following courses:

CENG 201: World Literature I. **3 credits**
Selected world masterpieces, with emphasis on literary texts from various cultures around the world. Introduces concepts and vocabulary required for reading, analyzing and interpreting literature. CENG 201 explores literature from the beginnings to the Renaissance. *Prerequisite: "C" or above in CENG 105 and 106.*

CENG 202: World Literature II. **3 credits**
Explores literature from the Renaissance to the present. *Prerequisite: "C" or above in CENG 105 and 106.*

MATHEMATICS **6/8 credits**
Two courses from the following sequences (Departments should specify required sequence):

CMAT 103: Algebra I. **3 credits**
Basic concepts of arithmetic and algebra, the real numbers, first degree equations of one variable, inequalities, exponents, polynomials, factoring, algebraic fractions, coordinate geometry and linear systems, rational exponents and radicals, quadratic equations.

CMAT 104: Algebra II. **3 credits**
Linear models, polynomial and rational models, exponential and logarithmic models, mathematics of finance, systems of linear equations and matrices, linear programming.

CMAT 105: Pre-Calculus I. **3 credits**
Fundamentals of algebra for study in analytic geometry and calculus. Concepts include the real numbers system, basic algebra, equations and inequalities of first and second degree, and functions and their graphs. *Prerequisites: Department approval and at least two (2) years of high school mathematics, including algebra, or departmental placement.*

CMAT 106: Pre-Calculus II. **3 credits**
Fundamentals of trigonometry for study in analytic geometry and calculus. Concepts include trigonometry, systems of equations and inequalities, conic sections, and sequences and series. *Prerequisite: CMAT 105, or departmental placement.*

CMAT 111: Calculus I. **4 credits**
Real numbers, functions, limits, derivatives, definite integrals and the applications of these topics. *Prerequisite: Proper placement score or CMAT 106 or CMAT 108.*

CMAT 112: Calculus II.**4 credits**

Topics covered include techniques of integration with applications to volume and surface area of solids of revolution and centers of mass, parametric equations, polar coordinates, improper integrals, and infinite series. *Prerequisite: CMAT 111.*

CMAT 209: Calculus and Analytic Geometry I.**3 credits**

Integrated course in analytic geometry and calculus designed for students in economics, business administration, and biology. The course provides students with the skills needed to study limits, functions, and differentiation. This course meets five days per week. *Prerequisites: CMAT 105, or departmental approval. This course is intended for Business majors.*

CMAT 210: Calculus and Analytic Geometry II.**3 credits**

Differentiation and integration of transcendental functions, definite integral, indefinite integral, area under curves, area between two curves, and differentiation of multivariable functions. This course meets five (5) days per week. *Prerequisite: CMAT 209. This course is intended for Business majors.*

PHILOSOPHY/RELIGION**3 credits****One course from the following Philosophy/Religion options:****CPHI 105: Critical Thinking.****3 credits**

Course focuses on the development of intellectual skills for all areas of study and on organization of ideas, identification of common errors in reasoning, and critical analysis of speeches and articles.

CPHI 221: Introduction to Philosophy.**3 credits**

Course focuses on basic issues studied by philosophers. The topics covered include the nature of freedom, the rational foundations for atheism, human existence and meaning, the nature of knowledge and issues in aesthetics.

CPHI 231: Ethics and Human Values.**3 credits**

Course provides detailed analysis of selected moral philosophers. Various approaches to value theory in conjunction with specific contemporary ethical issues are examined.

CREL 101: The Biblical Heritage.**3 credits**

The study of the literature of the Bible and its influence on the shaping of Western culture. Modern biblical scholarship is used to examine selected readings from the Old and New Testaments for their contributions to the understanding of human existence.

CREL 103 or 104: African-American Religious Experiences.**3 credits each**

CREL 103 provides analysis of the origin, development and social significance of African-American religious beliefs and practices from a historical perspective. CREL 104 emphasizes the contemporary period, including the latest developments in black liberation theologies.

CREL 211: Introduction to Religious Studies.**3 credits**

Introduction to the study of religion in a variety of contexts: historical, social, psychological, scientific, philosophical, artistic, and literary. Readings include representative works from the past and present.

CREL 250: Comparative Religion. 3 credits

Course offers a comparative survey of selected religious traditions from the East and West, including traditional African religions, Hinduism, Buddhism, Confucianism, Taoism, Judaism, Christianity and Islam.

CREL 251: Religious Ethics. 3 credits

Course examines major ethical issues confronting contemporary society and considers appropriate ethical responses to issues from a religious perspective. Topics include sexual ethics, abortion, racism, sexism, the ethics of war (especially nuclear war), capital punishment, genetic engineering, euthanasia, and professional ethics.

PHYSICAL EDUCATION 1 credit

One course from any CPED 101 or 102 offerings:

CPED 101 AND 102: Physical Education. 1 credit

These courses develop recreational skills and abilities for current and future participation in leisure time activities and provide a rationale for a physically fit lifestyle. Activities include badminton, volleyball, basketball, beginning swimming, tennis, modern dance, jazz exercise, softball, individual fitness programs, and varsity athletics.

The following courses/activity may serve as a substitute for the physical education requirement:

MSC 110: Orientation: The Military Role in Perspective. 1 credit

Introduction to the Army ROTC program. Examines the need for military forces in society, the national security organization, and the Army's role in American defense strategy as well as provides a rationale for a physically fit lifestyle and an opportunity to learn appropriate behavior for selected activities to promote fitness.

NS 110/111: Naval Science Drill. 0 credit

Leadership laboratory taken by all Midshipmen. Students receive a grade of "P" for satisfactory completion. Naval lab is taken by all Naval ROTC Midshipmen. Students participate in close order drill, physical training, military ceremonies and leadership training. Students are placed in leadership positions and evaluated on their development as a leader.

PSYCHOLOGY 3 credits

One course from the following:

CPSY 211: General Psychology. 3 credits

Course introduces basic psychological concepts and methodology. Surveys major research areas, including the nervous system, perception, learning, motivation, development and personality with emphasis on the influences of gender and culture.

CPSY 218: Human Growth and Development. 3 credits

Course includes an examination of the issues, theories, and research on the cognitive, social, personality, and physical development of humans throughout the life span, with emphasis on the influences of gender and culture.

CPSY 301: Educational Psychology.**3 credits**

For prospective teachers: a survey of the basic principles, theories, and techniques of applying psychological theory to the learning process. Students identify common problems teachers confront in the classroom and apply course material to typical classroom situations.

SCIENCE**6/8 credits****Two courses from the following sequences (Department should specify sequence):****CBIO 101: Biological Science.****3 credits**

A basic course in the biological sciences for nonscience majors. Topics include basic concepts of life and living organisms, their organization from atoms to organisms directed specifically toward the human being. Functioning and some disorders of various systems in the human body are taught.

CPHY 102/102L: Physical Science.**3 credits**

A basic course in the physical sciences for nonscience majors that covers basic concepts and topics of physics such as motion, space sciences, chemical process, conservation of energy, properties of heat, electricity and light. Three (3) lecture hours and one (1) two-hour laboratory per week.

CPHY 104/104L: Introduction to Earth System Science and Lab.**4 credits**

Course provides a scientific understanding of the physical earth system—lithosphere, hydrosphere, atmosphere, and solar system. Topics include: common landforms, identification of mineral and rock specimens, major types of earth movements, dating of rock strata, fundamentals of the hydrologic cycle, introduction to oceanography, properties and processes in the earth's atmosphere, and elementary concepts of astronomy. Students are required to attend one (1) two-hour laboratory each week.

CBIO 111 and 112: General Biology I and II.**4 credits each**

CBIO 111 provides an introduction to the basic principles of biology covering cells, organisms, and genetics. Topics covered include the cell surface, the role of the nucleus in cell division and regulation. Cell chemistry concepts of molecular biology, mitosis and meiosis, and alteration of generations receive special attention. CBIO 112 examines fundamental principles, concepts and facts of specific areas of biology, such as development, behavior, population biology and ecology. Covers developmental biology (growth and differentiation) and organismal physiology (nervous, hormonal, muscular, circulatory, excretory), and emphasis on regulation at the level of the organism. *Prerequisite: CBIO 111. Both courses require three (3) lecture hours and one (1) three-hour laboratory per week.*

CCHE 111 and 112: General Chemistry I and II.**4 credits each**

CCHE 111 covers fundamental theories and laws, chemical calculations, equations, period classification of the elements, structure of matter and ionization. CCHE 112 involves the study of chemical and ionic equilibria, nuclear chemistry, the chemistry of the metallic elements, and elementary qualitative analysis of cations and anions. Both courses require three (3) lecture hours and six (6) laboratory hours per week.

CPHY 111 and 112: General and Modern Physics.**4 credits each**

CPHY 111 introduces basic physics concepts of mechanics, heat, and sound, with emphasis on applications in broad areas such as chemistry and biology. *Prerequisite: three (3) units of high*

school mathematics, including algebra and trigonometry. CPHY 112 introduces students to basic principles in the physics of electricity, magnetism, optics, and atomic physics. *Prerequisite: CPHY 111. Both courses require three (3) lecture hours and one (1) three-hour lecture-laboratory per week.*

SOCIAL SCIENCE

3 credits

One course from the following approved Social Science Options:

CSCJ 105: Culture and Society.

3 credits

The course explores social forces that affect behavior and values. Students consider, among others, such issues as male/female relationships within institutions and society, racial and sexual inequality and the interaction between culture and institutions.

CPSC 106: Politics and Global Issues.

3 credits

The course introduces students to the discipline of political science and surveys the various fields of political science—comparative politics, political theory and international relations. Emphasis also lies with training students to use technology and to enhance skills of critical thinking, writing, and speaking.

CECO 107: Introduction to Economics.

3 credits

A one-semester survey course designed to introduce students to the fundamental theories and concepts of economics. Topics covered include demand and supply analysis, the function of markets in the allocation of resources, measuring economic activities in the private as well as the public sectors, problems such as unemployment, inflation, income distribution and poverty, and domestic and international financial institutions and the working of global market systems.

SPEECH

3 credits

CSTA 101: Fundamentals of Speech.

3 credits

Introduces students to fundamental principles of effective oral communication as it relates to the professional world, focusing on audience analysis, interpersonal skills, effective listening techniques, and the preparation and delivery of oral presentations.

FIRST-YEAR SEMINAR

2 credits

CGED 100 and 101: First-Year Student Seminar I and II.

1 credit each

A two-semester requirement for first-year students and for transfer students with twenty-eight (28) or fewer credit hours. The seminars are provided to assist students in making transition to successful postsecondary study and to obtain the necessary academic and personal reinforcements to meet the myriad demands of University life and to persist to graduation.

HONORS PROGRAM COURSES

Following are descriptions of Honors Program course offerings. An “H” after the course number indicates an Honors section of the course.

CHON 100H and 102H: Freshman Honors Seminar. **1 credit each** Exploration of topics regarding adjustment to the demands of University life. Special attention is devoted to problems peculiar to Honors Program students. Satisfies requirement for First-Year Student Seminar.

CBIO 111H and 112H: General Biology (Science Majors). **4 credits each** CBIO 111: Introduction to the basic principles of biology, covering cells, organisms and genetics. CBIO 112: Fundamental principles, concepts, and facts of specific areas in biology. Three (3) lecture hours and three (3) laboratory hours per week.

CCHE 111H and 112H: General Chemistry. **4 credits each** CCHE 111: Fundamental theories and laws, chemical calculations, equations, periodic classification of the elements, structure of matter, and ionization. CCHE 112: Study of chemical and ionic equilibria, nuclear chemistry, chemistry of the metallic elements, and elementary qualitative analysis of cations and anions. Three (3) lecture hours and six (6) laboratory hours per week.

CECO 304H: Contemporary Economic Problems. **3 credits** A survey and application of economic theories, principles, and concepts. Emphasis is on identification of major issues affecting the American political economy, particularly those having significance for the economic well-being of black and other Third-World people. Satisfies core requirement for social science.

CENG 105H and 106H: College Composition.**3 credits each**

Both courses examine ideas and systems of traditional and contemporary writers. CENG 105 includes basic research techniques. CENG 106 focuses on the development of a critical research project. Includes class discussion, debate, and individual and group projects designed to develop critical faculties. Satisfies General Education core requirement for College Composition.

CENG 201H or 202H: Introduction to World Literature.**3 credits**

Readings are drawn from the ancient, medieval, Renaissance, and modern worlds. Works from several cultures and periods suggest ways in which cultures and periods shape the self. Satisfies General Education core requirement for literature.

CHIS 201H and 202H: United States, World and African History.**3 credits each**

A one-year thematic course which provides an opportunity to analyze historical methodology and theories from a global perspective in relationship to social, economic, political and geographic factors. The past is examined in regard to understanding the present and predicting future events. Focus is on interaction between the continental peoples of Africa, North and South America, Asia and Europe. Satisfies General Education core requirement in history.

CHUM 209H: Cross-Cultural Humanities.**3 credits**

Study of social, religious, and literary movements and the individuals who have contributed to the cultural development of modern day society. Satisfies General Education core requirement for humanities.

CHON 390H: Independent Study.**1-6 credits**

Students identify a problem, issue or topic, outside the major, to be explored in depth under the supervision of a teacher with expertise in the selected area. Credit hours may not exceed three (3) hours per semester, and cannot exceed six (6) hours during undergraduate tenure.

CHON 490H: Senior Thesis.**2 credits**

Application of research methods to students' major area of concentration. They identify a research topic from their major courses, develop a research design, and complete the senior thesis under the guidance of an instructor.

CMAT 111H and 112H: Calculus I and II.**4 credits each**

CMAT 111H incorporates mathematical research in calculus principles. CMAT 112H extends the mathematical research component and introduces the concept of continuity of a function of one variable, differentiation and integration of an algebraic function, and applications of the calculus to elementary problems in natural sciences and engineering.

CMAT 211H: Calculus III.**4 credits**

Continuation of CMAT112 and includes three-dimensional analytic geometry, partial derivatives, multiple integral, vector calculus and their applications. *Prerequisite: CMAT 112.*

CMAT 212H: Differential Equations.**3 credits**

Definition and classification of differential equations. Techniques for first-order nonlinear equation, linear equations with constant and variable coefficients, methods of undetermined coefficients, variation of parameters, Cauchy-Euler equations, and other methods for solving nonlinear equations, series solutions. *Prerequisites: CMAT 112 or CMAT 210.*

CMAT 214H: Linear Algebra. **3 credits**
Introduction to linear algebra. Topics include vectors, matrices, linear equations, determinants, vector spaces with an inner product. *Prerequisites: CMAT 105 and CMAT 106, or equivalent.*

CPHI 105H: Critical Thinking. **3 credits**
Development of intellectual skills for all areas of study. Focuses on organization of ideas, identification of common errors in reasoning, and critical analysis of editorials, speeches and articles.

CPHI 262H: Science, Technology, and Human Values. **3 credits**
Exploration of fundamental value questions and dilemmas associated with training and research in the sciences. Covers applications of science to technology and industry. Satisfies General Education core requirement for religion or philosophy.

CPHI 362H: Social and Political Philosophy. **3 credits**
Examination of philosophical assumptions underlying different political systems. Satisfies General Education core requirement for religion or philosophy.

CSCJ 215H: Introduction to Sociology. **3 credits**
Basic concepts and principles of human society. Satisfies General Education core requirement for social science.

CPSY 211H: General Psychology. **3 credits**
Survey of the history, basic principles, and major areas of research in psychology, including contributions made by African Americans. Satisfies General Education core requirement.

HONORS PROGRAM COLLOQUIA

CCOL 104H: The American Black Woman. **2 credits**
Exploration of the multidimensional nature of life of black women in North America from 1619 to the present. This colloquium provides knowledge and understanding of how black women's lives have been shaped by American systems.

CCOL 106H: Themes in Fiction of the American Diaspora. **2 credits**
Identification and analysis of significant themes in the literature of Africa and the African Diaspora (that is, for purposes of this colloquium, the Americas where the Atlantic slave trade dominated).

CCOL 112H: Moral Problems in Contemporary Society. **2 credits**
Consideration of current issues in biology and medicine which require ethical decisions.

CCOL 200H: College Campus Culture. **2 credits**
Exploration of the social, emotional and intellectual behaviors which are transmitted and formed throughout college matriculation.

CCOL 202H: Humanities: Contemporary Music. **2 credits**
Music appreciation and analysis of contemporary music, with emphasis on classical, folk, and black forms.

CCOL 202H: Contemporary Existentialist Thinking. **2 credits**
Current trends of atheistic and theistic existentialist philosophies.

CCOL 205H: Southern Writers. **2 credits**
Study of fiction, form, folk, and fact in representative works by and about Southern writers, with concentration on nineteenth- and twentieth-century works.

CCOL 302H: Dynamics of Leadership. **2 credits**
Opportunity to explore leadership qualities and styles.

CCOL 402H: Black Self-Concepts. **2 credits**
The aspirations, accomplishments, and progress of African Americans against the historical background of W.E.B. DuBois' *Souls of Black Folk*.

HUMANITIES COURSE DESCRIPTIONS

CHUM 228: Interdisciplinary Humanities I.

3 credits

This course focuses on the diversity of cultural experiences primarily in the United States. The class uses readings from a variety of disciplines, from anthropology and sociology to literature, philosophy, religion, and art. Students will learn to think critically in this class through writing short papers and classroom discussion. This section concentrates on the issues of myth and the making of history, the natural and unnatural, identity, individual and community and religion and belief systems.

CHUM 230: Interdisciplinary Humanities II.

3 credits

This course focuses on the diversity of cultural experiences primarily in the United States. The class uses readings from a variety of disciplines, from anthropology and sociology to literature, philosophy, religion, and art. Students will learn to think critically in this class through writing short papers and classroom discussion. This section concentrates on the issues of education, work and economy, state and nationalism, social change, and pop culture

COURSE DESCRIPTIONS

ART COURSE DESCRIPTIONS

CART 101: Art Foundations I.

3 credits

Studio problems in basic design explore the elements and principles of applied design theory.

CART 102: Art Foundations II.

3 credits

Studio problems that cover the properties and effects of light and color. Exploration of basic color organizations and principles.

CART 150: Art Appreciation. 3 credits Designed to provide students understanding and appreciation of the art forms in the world. Lectures, discussions and visual aids are utilized to survey the painting, sculpture, architecture and other forms of art from different cultures.

CART 201: Drawing I.

3 credits

Introduction to perceptual drawing skills. Focus is on the translation of three-dimensional forms to a two-dimensional surface.

CART 202: Drawing II.

3 credits

Continuation of CART 201. Emphasizes perceptual drawing skills. Students are also introduced to a variety of materials. *Prerequisite: CART 201.*

CART 215: Typography and Layout.

3 credits

Introduction to the study of letterforms, including a study of type faces and letter spacing composition and their application to the design of visual communication materials. *Prerequisites: CART 101 and CART 102 or permission of instructor.*

CART 217: Printmaking I.

3 credits

Introduction to hand printmaking. Stresses creativity, experimentation, and development of skill and craftsmanship in printing procedures. *Prerequisite: CART 101, 02, 201 or permission of instructor.*

CART 275: Photography I.

3 credits

Basic photography skills for students with little prior knowledge of photography. Students are introduced to the basics of camera handling and image composition. One requirement of the course is a camera with a manually adjustable shutter speed control and aperture dial.

CART 277: Computer Imaging Basics.

3 credits

Introduction to various software programs including adobe illustrator, adobe photoshop and scanning techniques.

CART 315: Illustration I.

3 credits

Basic illustration conceptualization. Develops students' professional illustration techniques and processes. *Prerequisites: CART 201 and CART 202 or permission of instructor.*

CART 317: Printmaking II.

3 credits

Continuation of CART 217. Students introduced to intermediate printmaking concepts. *Prerequisites: CART 101, 102, 201, and 217.*

CART 320: Typography and Layout II. **3 credits**
Continuation of CART 215. Assignments incorporate the use of type in applied materials, such as magazine layouts, book jackets, and record covers. *Prerequisite: CART 215 or permission of instructor.*

CART 321: Graphic Design I. **3 credits**
Investigation of applied problems in visual communication. Study of design principles, production methods, and presentation. *Prerequisite: CART 101, 102, 215 or permission of instructor.*

CART 351: Basic Rendering Techniques. **3 credits**
Instruction in rendering medical illustrations through the use of a variety of media.

CART 375: Photography II. **3 credits**
Continuation of CART 275. Students are required to form a personal vision through directed assignments. *Prerequisite: CART 275 or permission of instructor.*

CART 379: Computer Graphics. **3 credits**
Covers basic computer graphics imaging utilizing graphics software for visual communication. *Prerequisite: CART 101, 102, 201, or permission of instructor.*

CART 381: Three-Dimensional Design. **3 credits**
Materials, methodology, principles of design, and basic concepts applicable to the execution of projects dealing with three-dimensional form.

CART 413: African Fabric Design. **3 credits**
Focuses on analysis of African fabric designs in terms of their patterns and social functions. Emphasis is on the appropriate use of African fabric design for fashion and commercial art design.

CART 444: Seminar in Twentieth-Century Art. **3 credits**
Investigates topics pertinent to the studio artist. Focus is on the impact of recent art history on the work of contemporary artists.

CART 464: Desktop Publishing. **3 credits**
Introduces the student to the use of desktop publishing *software*. *Prerequisite: CART 215 and CART 321 or permission of instructor.*

CART 448 through 479: Directed Studies. **variable credits**
Research and advanced production techniques in a field of the student's special interest. Directed studies taken after completion of the course sequence available in the field of interest. Students may register for directed studies under the following course titles and numbers:

CART 451 Illustration
CART 452 Typography and Layout
CART 453 Printmaking (Silkscreen)
CART 456 Photography
CART 457 Printmaking (Intaglio)
CART 460 Printmaking (Lithography)
CART 461 Three-Dimensional Design
CART 462 Graphic Design
CART 466 Rendering Techniques
CART 479 Computer Graphics

CART 488: Internship. **3 credits**
On-the-job training in the work world. Students can qualify for an internship after the freshman year.
Prerequisite: permission of department chairperson.

CART 492: Portfolio. **3 credits**
Capstone course for senior art majors. Includes preparation for portfolio presentation, job searches, interview techniques, oral presentations and organizing exhibitions. *Prerequisite: permission of department chairperson.*

BIOLOGY COURSE DESCRIPTIONS

CBIO 101: Biological Science. **3 credits**
A basic course in biological science for nonscience majors. Topics include basic concepts of life and living organisms, their organization from atoms to organisms directed specifically toward the human being. Functioning and some disorders of various systems in the human body are taught. Three (3) lecture hours.

CBIO 111: General Biology I. **4 credits**
Introduction of the basic principles of biology, covering cells, cell organelles, and genetics. The cell surface, the role of plastid and mitochondria in energetics, and the role of the nucleus in cell division and regulation are given special emphasis. Also included are cell chemistry, concepts of molecular biology, mitosis and meiosis. Three (3) lecture hours and a three-hour laboratory per week.

CBIO 112: General Biology II. **4 credits**
Fundamental principles, concepts, and facts of specific areas in biology, such as development, behavior, population biology, and ecology. Covers organismal physiology (nervous, hormonal, muscular, circulatory, excretory), with emphasis on regulation at the level of the organism. Three (3) lecture hours and a three hour laboratory per week. *Prerequisite: CBIO 111.*

CBIO 233: Microbiology. **4 credits**
The study of microorganisms with emphasis on bacteria and viruses, physiology and metabolism of bacteria, bacterial growth, metabolic regulation, genetics of bacteria, genetic resistance to antibiotics, survey of the major groups of bacteria and viruses, and diseases of bacteria and viruses. Three (3) lecture hours and a three hour laboratory required per week. *Prerequisite: CBIO 111 and 112 and CCHE 111.*

CBIO 251: Vertebrate Anatomy and Embryology. **4 credits**
Comparative study of the structures, functions and the ontogenesis of the vertebrates. Structural origin and mechanisms of development are stressed. Three (3) lecture hours and a three-hour laboratory required per week. *Prerequisites: CBIO 111 and 112.*

CBIO 255: Invertebrate Zoology. **4 credits**
Consideration of the morphology, physiology, phylogeny, and ecology of major invertebrate phyla. Laboratory work includes practical anatomy and physiology of indigenous and exotic species. Three (3) lecture hours and a three-hour laboratory required per week. *Prerequisites: CBIO 111 and 112.*

CBIO 261: Environmental Biology. **4 credits**
Study of current problems of society as related to the environment. Addresses selected problems related to water pollution, conservation, and populations. Students explore basic principles of ecology and their application to ecological problems. The impact of problems and their solutions is

stressed. Three (3) lecture hours and a three-hour laboratory required per week. *Prerequisites: CBIO 111 and 112.*

CBIO 300: Histology. **4 credits**

Laboratory course dealing with the microscopic and ultramicroscopic anatomy of mammalian tissues and organs with emphasis on relating structure to function. Two (2) lecture hours and a four-hour laboratory required per week. *Prerequisites: CBIO 111, and 112 and CCHE 111 and 112.*

CBIO 312: Genetics I. **4 credits**

The science of genetics, including the chromosomal basis of inheritance, meiosis, Mendelian genetics, linkage, human genetics, cytogenetics, DNA replication, chromosome structure, quantitative genetics, molecular genetics, gene function, gene regulation and bacterial genetics. Three (3) lecture hours and a two-hour recitation period required per week. *Prerequisites: CBIO 111, and 112 and CCHE 111 and 112.*

CBIO 331: Plant Biology. **4 credits**

This course surveys the major groups in the plant kingdom, emphasizing the vascular plants. Students explore the structure, function diversity, ecology, and physiology of the plants. The laboratory emphasizes microscopy and experimentation. Three (3) lecture hours and three (3) laboratory hours required per week. *Prerequisites: CBIO 111 and 112.*

CBIO 375: Cell and Molecular Biology. **3 credits**

Study of the origin and structure of cell organelles and comparative and integrated presentation of the fundamental physiochemical mechanisms associated with the living cell. Three (3) lecture hours per week. *Prerequisites: CBIO 111 and 112; CCHE 111 and 112.*

CBIO 390: Introduction to Biochemistry. **3 credits**

Survey of basic principles of biochemistry and molecular biology, emphasizing broad understanding of chemical and biological events in living systems. The course emphasizes the major biologically important topics including sugars, amino acids, peptides, nucleic acids, lipids, enzymes, cofactors, vitamins, hormones and the operation of metabolic pathways. *Prerequisites: CBIO 111 and 112, CCHE 111, 112, 231 and 232.*

CBIO 471: Plant Physiology. **4 credits**

Lecture/laboratory course emphasizing the water relations, photosynthesis, nitrogen metabolism, and hormones of vascular plants. Three (3) lecture hours and four (4) laboratory hours required per week. *Prerequisites: CBIO 111, and 112 and CCHE 111 and 112. Recommended: CBIO 331.*

CBIO 476: Human Physiology. **4 credits**

Study of functions of the various tissues, organs, and organ systems of humans, with emphasis on the mechanisms, the cause and effect of hormonal actions, neurotransmission, cardiovascular control and muscle contraction. Three (3) lecture hours and one hour of recitation required per week. *Prerequisites: CBIO 111 and 112; CCHE 111 and 112.*

CBIO 478: Cell Biology Laboratory. **3 credits**

Introduction to experimental design, laboratory procedures, and instrumentation. Cell culture, cell growth kinetics, enzyme purification and kinetics, bacterial genetics studies, virus isolation and replication, column chromatography, protein synthesis and isolation of cell organelles. Two (2) 2.5-hour laboratories required per week. *Prerequisites: CBIO 111, 112, and 312 and CCHE 111, 112, 231, 232, corequisite CBIO 375.*

CBIO 480: Research in Biology.**Variable credit (1-4)**

Independent, faculty-supervised laboratory investigation on topics of special interest. Students present periodic reports. Course may be repeated. *Prerequisite: Permission of department chair and faculty supervisor.*

CBIO 482: Seminar in Biology.**1 credit**

Students present scientific seminars on a subtopic of a specific theme. Students are required to make an oral presentation on the selected topic and submit a written paper. One (1) lecture hour per week.

CBIO 491: Biochemistry.**4 credits**

Structure and function of proteins, nucleic acids, carbohydrates, and lipids. Three (3) lecture hours and one hour of recitation required per week. *Prerequisites: CBIO 111, and 112 and CCHE 231, and 232.*

CBIO 492: Biochemistry.**4 credits**

Intermediary metabolism and the control mechanisms involved. DNA replication and introductory recombination. Three (3) lecture hours and one recitation hour required per week. *Prerequisites: CBIO 111, 112, 491 and CCHE 231, and 232.*

See Graduate Catalog for graduate course descriptions.

BUSINESS COURSE DESCRIPTIONS**ACCOUNTING COURSE DESCRIPTIONS—Undergraduate Program****CBUS 207: Financial Accounting.****3 credits**

Concepts and their application in transaction analysis and financial statement preparation; analysis of financial statements. *Prerequisite: CMAT 209 and sophomore standing.*

CBUS 208: Managerial Accounting.**3 credits**

Introduction to cost behavior, budgeting, responsibility accounting, cost control, and product costing. *Prerequisite: CBUS 207 with a minimum grade of "C"*

CBUS 209: Accounting for Non-business majors.**3 credits**

An introduction to financial and managerial accounting, with emphasis on the content, interpretation, and uses of accounting reports. Discussion of the determination and reporting of net income and financial position, and the theories underlying business financial statements; consideration of managerial accounting topics designed to extend the student's knowledge to the planning and controlling of the operations of the firm.

CBUS 308: Accounting Information Systems.**3 credits**

Accounting information systems of organizations. Topics include selected hardware and software concepts, fundamentals of accounting information systems analysis, design, implementation, and control. *Prerequisite: CBUS 207 with a minimum grade of "C"*

CBUS 303: Intermediate Accounting I.**3 credits**

This course is the first of three-course financial accounting series providing a theoretical foundation, concepts, and principles underlying financial statements; current assets; current liabilities; property, plant, and equipment; short-term investments; present value analysis. *Prerequisite: CBUS 207 and CBUS 208 with a minimum grade of "C"*

CBUS 304: Intermediate Accounting II.**3 credits**

This course is the second of a three-course financial accounting series, providing an in-depth study of the accounting cycle, conceptual framework of financial accounting, valuation of balance sheet accounts, recognition of revenues, matching of expenses, and the reporting of the financial condition, operating results, and cash flows of an entity. *Prerequisite: CBUS 303 with a minimum grade of "C"*

CBUS 307: Intermediate Accounting III.***3 credits**

Study of financial statements and their related footnotes; tools and procedures common to financial statement analysis; the relationships among business transactions, environmental forces (political, economic, and social), and reported financial information; and how financial statement information can help solve certain business problems. *Prerequisite: CBUS 303 and CBUS 304 with a minimum grade of "C"*

CBUS 305: Cost Accounting.**3 credits**

Analysis of manufacturing costs, development of cost estimates, and preparation of relevant information for management decision making. *Prerequisite: CBUS 207 and CBUS 208 with a minimum grade of "C"*

CBUS 405: Auditing and Control.**3 credits**

Examination of basic auditing concepts and practices, and the auditor's professional responsibilities. Emphasis) A case-based graduate seminar that provides the students with the opportunity to identify and research issues in accounting. Developing the students' professional written communication skills is an important component of this course. Emphasis is on auditing standards and the auditing procedures commonly used in public accounting. The course emphasizes practice standards and procedures of auditing: ethics, legal liability, sampling methods, control systems, control design, and control evaluation. *Prerequisite: CBUS 303 and CBUS 304 with a minimum grade of "C"*

CBUS 426: Individual Tax.**3 credits**

Introduction of tax preparation for individuals using the Internal Revenue Code and rulings; individual tax planning; tax- payer rights and responsibilities will be covered in this course. *Prerequisite: CBUS 207 and CBUS 208 with a minimum grade of "C"*

CBUS 427: Corporate Income Tax.**3 credits**

Review of federal taxation principles associated with the organization, operation, and dissolution of corporate partnership and tax-exempt organizations. Introduction to federal estate and gift taxes and to income taxation of trusts and estates. *Prerequisite: CBUS 426 with a minimum grade of "C"*

CBUS 465: Advanced Accounting.**3 credits**

Accounting problems with respect to multiple ownership; consolidated financial statements and partnership accounts; foreign currency translation; segmental reporting; other special topics. *Prerequisite: CBUS 303 and CBUS 304 with a minimum grade of "C"*

CBUS 466: Internal Auditing I.***3 credits**

Examines the internal audit procedures and standards required in corporations, including adherence to Sarbanes Oxley regulations, compliance, and ethical standards. *Prerequisite: CBUS 207;CBUS 303;CBUS 304 with a minimum grade of "C"*

ACCOUNTING -- BA/MAcc Program (BMAC)

CSB 5606: Advanced Auditing and Analytical Procedures.

3 credits

Utilization of analytical procedures to understand a client's business; identify unusual trends, relationships, and variations in financial statements; evaluate the reasonableness of the numbers in financial statements; identify potential risks associated with the audit; and plan the nature, timing, and extent of audit procedures. Students utilize available research materials, databases, personal auditing experience, and practitioner sources to address relevant issues. Emphasis is on analysis, teamwork, writing, and presentation skills.

CSB 5690: Governmental and Nonprofit Accounting.

3 credits

Provides a working knowledge of governmental and nonprofit accounting and financial reporting, and prepares students for professional certification in these areas. Governmental accounting is studied using the textbook and incorporating real-world examples. Nonprofit accounting instruction gives students the knowledge needed to work with nonprofits as auditors, board members, or volunteers.

CSB 6618: International Accounting.

3 credits

Identifies the primary issues in the area of global financial reporting with a focus on multinational business risks and accounting implications, regulation of accounting and attestation in different countries, and reporting financial performance in a global context. The class considers how international reporting requirements help or hinder access to capital markets and examines the current state of convergence toward global reporting standards.

CSB 6620: Strategic Cost Analysis.

3 credits

Focuses on the analysis and reporting of resources costs and resource consumption explicitly directed at strategic management. The key elements to be studied are cost structure, value chain analysis, strategic cost management, and cost driver analysis in support of strategic and operational decisions.

CSB 6621: Accounting Practice I.

3 credits

Examines the financial reporting problems that arise from mergers and acquisitions and from complex, multinational entities. The focus includes fair value accounting for business acquisitions, consolidation of financial statements, and cross-currency translation of financial statement. Class time will include lecture, discussion, and problem-solving.

CSB 6622: Accounting Practice II.

3 credits

A case-based and problem solving graduate seminar class that provides the students with the opportunity to identify and research issues in accounting; prepare for the CPA or CMA certification using review materials; and enhance the students' professional written communication skills.

CSB 6623: Advanced Accounting Information Systems.

3 credits

Study of accounting system data security, fiduciary and reliability risks and mitigating internal controls. Emphasis is on the revenue and expenditure cycles and computer assisted audit techniques.

CSB 6628: Forensic Accounting.*

3 credits

Overview of fraud prevention and detection techniques, and an in-depth discussion of how to assist an audit committee and legal counsel with fraud investigations. Topics examined include investigating theft and concealment, conversion investigation methods, inquiry methods, and fraud reports.

CSB 6630: Professional Accounting Internship.***3 credits**

Professional accounting field work, under the direction of a faculty member, in a public accounting firm, corporate enterprise, or not-for-profit organization. Students gain relevant practical experience which builds on prior coursework and provides an experiential knowledge base for their remaining graduate coursework.

DECISION SCIENCES/SUPPLY CHAIN MANAGEMENT COURSE DESCRIPTIONS**CBUS 206: Management Information Systems.****3 credits**

This introductory course contains ideas, concepts, and principles on the basic information systems to which every business student should be exposed in the core business requirement. It integrates both computer concepts and information systems concepts, and provides a strong managerial emphasis. *Prerequisite: CCIS 100.*

CBUS 313: Statistics I.**3 credits**

This course covers basic statistical concepts, techniques, and their applications to business decision making. Covers the descriptive aspects for statistics, involving data collection, organization, presentation, and introduces students to probability and inferential statistics. *Prerequisite: CMAT 209 and CMAT 210.*

CBUS 314: Statistics II.**3 credits**

The topics covered in this course include analysis of variance, simple regression, multiple regression, correlation, Chi-square distribution and analysis of frequencies, and time-series analysis and forecasting. The statistical software package is used. *Prerequisite: CBUS 313.*

CBUS 315: Systems Analysis and Design.**3 credits**

This course provides students with a practical approach to systems analysis and design, using a blend of traditional development with current technologies to solve business problems. Students become familiar with how systems analysts interact with users, management, and other IT professionals in a typical business organization. The systems development life cycle (SDLC) is used to analyze, design, and develop projects. *Prerequisite: CBUS 206*

CBUS 317: Enterprise Integration Systems.**3 credits**

In this course students learn about the supply chain management programming environment, including data and communications protocols/standards, server and client operating systems, and a working knowledge of at least one on-line Enterprise Resource Planning Application. Students are prepared to understand their business functions. However, they are competing with students who have this as well. In this course students obtain hands-on experience with the actual systems that are used to actually provide this functional integration. Enterprise integration is not only about software but also about the power of automation on business productivity. Students will be provided with the concepts of enterprise resource planning and extensive exposure to the SAP System. SAP has 39% penetration of the ERP market, and nearly 100% in the Fortune 100. These companies are spending tens of millions of dollars annually, updating and integrating these systems into every business function. Our students are to be exposed to this environment. *Prerequisite: CBUS 206.*

CBUS 362: Supply Chain Management.**3 credits**

Upon the completion of this course, the students will be able to describe key supply chain management concepts, understand the strategic importance of supply chain management in improving a firm's competitive position, and learn about the opportunities and problems faced in strategic sourcing environment. *Prerequisite: CBUS 206.*

CBUS 364: Procurement and Supply Management.**3 credits**

This course addresses the strategic and operational role of the purchasing and supply management functions in the modern organization. The aim of this course is to get students acquainted with the fundamental concepts, models, and instruments in the area of purchasing and supply management. Through web-based projects, case assignments, and industry presentations, the course will provide insights into the current developments, newest ideas, and biggest problem areas in this field. *Prerequisite: CBUS 362.*

CBUS 366: Project Management.**3 credits**

This course provides an overview of the structured process for managing projects. The emphasis is on the defining, planning, scheduling, organizing, implementing, and controlling of single and multiple projects, in order to successfully complete them within quality specifications, on schedule, and within budget. Other topics include project organization, roles of the project manager and team members, and project leadership. Additionally, the importance of communication and people management is integrated throughout the discussion. *Prerequisites: CBUS 206 and CBUS 362.*

CBUS 434: Enterprise Integration Applications.**3 credits**

Students learn about the mainframe, midrange supply chain management programming environment, including back office applications, data and communications protocols/standards, server and client operating systems, legacy applications, and a working knowledge of at least one large system programming language (e.g. COBOL).

CBUS 436: Data Mining/Visualization.**3 credits**

This course is designed to teach students how to apply and utilize standard statistical analysis techniques to identify trends and make recommendations based on systems generated data. Topics include: performance management, techniques for data mining, market research, regression analysis, and multivariate analysis. The students will gain a working knowledge of several statistical analysis packages. *Prerequisite: CBUS 362.*

CBUS 438: Electronic Commerce.**3 credits**

Concepts and principles of e-commerce are covered. The students are given an understanding of the history and background of the underlying trends and technologies (EDI, TCP/IP, Telecom, etc.) that make up e-commerce, the business models which have emerged and the implications (functional, ethical, and political) on each of the major business functions. The students also become familiar with business process redesign concepts as the means of introducing e-commerce related changes into an existing, stable business culture. *Prerequisite: CBUS 362.*

CBUS 460: Production/Operations Management.**3 credits**

This course provides students with an understanding of the primary activities of the operations function in organizations. Intended to develop skills in the art of formulating quantitative models of real world decision making, operations strategy, and business applications, including cost-benefit analysis, forecasting, problem design and processing, planning, allocating scarce resources, facility locations, layouts, scheduling, and inventory management. Students will experience the extensive use of the computer to assist in solving the business problems. *Prerequisite: CBUS 313.*

CBUS 474: Logistics Management.**3 credits**

Logistics is one of the most vital areas of business today. Analysis of logistics activities includes integration of transportation, inventory management, warehousing, facility location, customer service, packaging, and materials handling. Students will be exposed to online logistics support

systems to better understand the real-time nature of transportation decisions on other business functions. *Prerequisite: CBUS 362.*

CBUS 462: Advanced Topics in Supply Chain Management. 3 credits

This course provides in-depth treatment of one or more advanced areas of supply chain management. The topics will vary with each offering. *Prerequisite: CBUS 362.*

CBUS 470: Database Management. 3 credits

Concepts and principles of database design and administration are covered. The students gain hands-on experience with relational databases, data mining concepts, and Web-based data-oriented applications. *Prerequisite: CBUS 362.*

CBUS 472: Quality, Diversity, and Productivity. 3 credits

This course provides the opportunity to improve the teaching/learning paradigm. It is designed in an integrated fashion that fosters an “emerging paradigm” of systems thinking and learning regarding the disciplines of quality, leadership and productivity improvement. The course emphasizes the concepts of TQM and its application to modern management and the global marketplace, the new paradigm of customer value, measurement positioning, key stakeholders, product design, and cross-functional organizational systems. In addition it focuses on viewing quality as a strategic issue and the concept that good quality can be a strategic competitive advantage. Finally, the course will help students understand the major motivations/reasons for businesses and managers to pay attention to teamwork, diversity and value-added performance. *Prerequisite: CBUS 362.*

CBUS 476: Supply Chain Management Strategies. 3 credits

This course provides integrated supply chain management strategies, incorporating procurement and supply management, production, logistics, transportation, and enterprise systems. Strategies are developed around internal issues including employee relations, ergonomics and workplace changes; ethical issues; and external issues including vendor and customer relations, customer service, and regulatory considerations. *Prerequisite: CBUS 362.*

CBUS 478: Modeling the Supply Chain. 3 credits

This course provides students with discussions and examples that integrate qualitative and quantitative thinking about supply chain planning problems and models. A major approach relies heavily on optimization models, which provides frames or templates for such integration. The course attempts to demonstrate that optimization models and methods provide comprehensive systems approaches to integrated business planning, which is the essence of supply chain management. Firms that succeed in such efforts will realize a significant competitive advantage. *Prerequisite: CBUS 362.*

ECONOMICS COURSE DESCRIPTIONS

CECO 107: Introduction to Economics.

3 credits

A one-semester survey course designed to introduce students to the fundamental principles and concepts of economics. Topics covered include demand and supply analysis, the function of the markets in the allocation of resources, measuring economic activities in the private as well as in the public sectors, problems such as unemployment, inflation, income distribution and poverty, and domestic and international financial institutions and the working of global market systems.

CECO 250: Principles of Economics.

3 credits

A one-semester introductory course in economics for students in departments which require only one semester of economics. The course focuses on both macro- and microeconomic issues that impact the decision making within the U.S. economy.

CECO 251 & 252: Principles of Macro- and Microeconomics.

3 credits each

A one-year comprehensive study of the principles which govern production, consumption, and distribution as well as the major institutions in the United States economic system. *Prerequisite: CECO 251 addresses macro-analysis and CECO 252 addresses micro-analysis. Prerequisites: A grade of "C" or better in CMAT 103 and 104 (or exemption from these courses).*

CECO 250, 251 and 252: Economics Laboratory.

0 credits

Lab courses to be taken along with CECO 250, 251, and 252 respectively.

CECO 302: Government and Business.

3 credits

The nature and development of government control and regulation of enterprises is the focus of this course. It examines antitrust laws and their interpretation and enforcement, selected Supreme Court antitrust decisions, and current problems of government relations in various industries (offered within the Atlanta University Center).

CECO 304: Contemporary Economic Issues.

2 credits

A colloquium designed for Honors Program students. It focuses on major issues affecting the American political economy, particularly those having special significance for the economic well-being of black and other Third World peoples.

CECO 308: Mathematical Economics.

3 credits

Applications to elementary mathematics to economics are covered. This course includes studies in calculus, matrices, and linear difference equations. Mathematical problems used in this course come from the field of economics (offered within the Atlanta University Center). *Prerequisites: A grade of "C" or better in CMAT 111 and CMAT 112.*

CECO 309: Introduction to Econometrics.

3 credits

The use of mathematical and statistical models in the study of economics relationships is covered in this course. Methods introduced include single equation least squares, analysis of variance, and multiequation models (offered within the Atlanta University Center). *Prerequisites: A grade of "C" or better in CBUS 313 and CBUS 314.*

CECO 315: Intermediate Macroeconomic Analysis.

3 credits

This course examines general theories of aggregate economic analysis. It traces the development and refinement of selected theories through the classical, Marxism, neoclassical, and Keynesian schools. It enables students to analyze unemployment, inflation, business cycles, and other national economic occurrences. *Prerequisite: A grade of "C" or better in CECO 251.*

CECO 316: Intermediate Microeconomic Analysis. **3 credits**

The theory of the firm, the household, and the market with applications to individual decision-making units are covered in this course. *Prerequisite: A grade of "C" or better in CECO 252.*

CECO 324: Economic Development. **3 credits**

A study of the characteristics and problems of developed and developing economies. Covers the theory of economic development, stages of growth and development, and data analysis to evaluate development performance. *Prerequisites: A grade of "C" or better in CECO 251 and CECO 252.*

CECO 325: Comparative Economic Systems. **3 credits**

A study of the economic models of comparative systems. The course includes an analysis of the effectiveness of performance of alternative economic systems in terms of growth patterns and fidelity to ideology. *Prerequisites: A grade of "C" or better in CECO 251 and CECO 252.*

CECO 335: International Trade. **3 credits**

Application of microeconomic policy to commercial relations between nations. Among the topics covered are the theory of comparative advantage and alternative commercial policies. *Prerequisites: A grade of "C" or better in CECO 251 and CECO 252.*

CECO 343: Public Finance. **3 credits**

General survey of government finance at the federal, state, and local levels. Topics include government expenditures, principles of taxation, intergovernmental fiscal relations, debt management, public borrowing, and fiscal policies for economic stabilization (offered within the Atlanta University Center). *Prerequisites: CECO 315 and CECO 316.*

CECO 357: Economic History of the United States. **3 credits**

Economic perspective of regions and historical periods in the United States. Topics include agricultural and industrial life in the colonies, the economic effect of slavery, post-Civil War agrarian revolution, development of manufacturing and transportation, westward movement, business concentration, the Depression, the World Wars, and the recent trends (offered within the Atlanta University Center).

CECO 362: Money and Banking. **3 credits**

Examines the alternative theories of money. Explores the relationship of money to prices, the role of financial intermediaries, international monetary problems, and the history of monetary policy in the United States. *Prerequisites: A grade of "C" or better in CECO 251 and CECO 252.*

CECO 365: Economics of Labor. **3 credits**

Consideration of labor as an economic factor. Covers wages, labor force participation, employment and unemployment, the growth of labor organizations, labor market discrimination and public policies (offered within the Atlanta University Center). *Prerequisites: A grade of "C" or better in CECO 251 and CECO 252.*

CECO 369: Urban Economics. **3 credits**

Examination of three principal themes in the economics of urban areas: (1) the economics of the location decisions and the influence of these decisions on urban growth and the real estate market; (2) evaluation of transportation and other services; and (3) economic development of ghetto neighborhoods (offered within the Atlanta University Center). *Prerequisite: CECO 252.*

CECO 372: History of Economic Doctrines.**3 credits**

Survey of economic thought from ancient times to the present (offered within the Atlanta University Center).

CECO 470: Research Methodology/Senior Thesis.**3 credits**

Designed to explain the methods of conducting social science research, including defining the problem to be studied, establishing hypotheses, and utilizing techniques of empirical analysis. All economics majors are required to write a Senior Thesis on an approved topic. Prerequisite: approval of the undergraduate coordinator and/or department chairperson.

CECO 490: Independent Study.**0-3 credits**

Projects designed by the student and a faculty member, who agrees to work with the student, to meet specific and individual needs. May involve direct reading in specific subject area, a research project, teaching economics in high school or a combination of any two. May be repeated for additional credits. *Prerequisite: Approval of the Undergraduate coordinator and/or department chairperson.*

CECO 495: Cooperative Education.**0-3 credits**

Intensive practical experience in a profit or nonprofit public or private organization. Students are expected to acquire knowledge, understanding, and the skills pertinent to the select organization. Prerequisite: Approval of the undergraduate coordinator and/or department chairperson.

FINANCE COURSE DESCRIPTIONS**CBUS 250: Personal Finance.****3 credits**

The course focuses on aspects of personal financial planning including career planning, tax preparation, risk management and insurance, cash and credit management and budgeting, investing, retirement and real estate planning. This course is counted only as a general elective and not a finance concentration elective.

CBUS 285: Real Estate Principles and Practices.**3 credits**

Introduction to real estate terms, concepts and attributes. The appraisal process and real estate law are also studied. This course meets the educational requirements for the Georgia Real Estate Sales license. This course is counted only as a general elective and not a finance concentration elective.

CBUS 341: Corporate Finance I.**3 credits**

The basic concepts and analytical tools of finance in both corporate finance and investments. Topics include risk and return, financial institutions, efficient markets, valuation theory, capital budgeting, portfolio theory, cost of capital, and international finance. *Prerequisites: CBUS 207 and CBUS 208 with at least "C" and CECO 251 and CECO 252 with at least a "C"*

CBUS 360: Principles of Insurance.**3 credits**

Study of the basic uses and functions of insurance as applied to the overall treatment of risk. Presented from the viewpoint of the consumer. *Prerequisites: CBUS 207 and CBUS 208 with at least a "C" and CECO 251 and CECO 252 with at least a "C"*

CBUS 368: Real Estate Finance and Investments.**3 credits**

The instruments, techniques, and institutions of real estate finance; sources of funds; mortgage risk analysis: emphasis on typical policies and procedures used in financing of residential, industrial, and commercial properties. *Prerequisite: CBUS 341.*

CBUS 420: International Financial Management. 3 credits

International business decision making emphasizing the effects of internationalized financial and non-financial markets. Exchange rate analysis, hedged costs of funds, economic exposure and management, capital budgeting, financial and corporate strategy, and the evaluation of international risks and returns. *Prerequisite: CBUS 341.*

CBUS 451: Management of Financial Institutions. 3 credits

The basic concepts and analytical tools of finance in both corporate finance and investments. Topics include risk and return, financial institutions, efficient markets, valuation theory, capital budgeting, portfolio theory, cost of capital, and international finance. *Prerequisite: CBUS 341.*

CBUS 452: Security and Analysis. 3 credits

The securities markets, investor objectives, introduction to portfolio theory and the analytical tools of portfolio management, and an examination of investment alternatives. Portfolio management and security analysis. Emphasis is on risk, return, valuation of securities, portfolio theory, and investment performance analysis. Students will research stocks and manage a stock portfolio. *Prerequisite: CBUS 341.*

CBUS 453: Corporate Finance II. 3 credits

Development of a framework that is useful for understanding a broad range of important corporate financial decisions. Substantial emphasis will be placed on discussion of the determinants of corporate financing and payout policies, alternative methods of security issuance, and mergers and acquisitions. *Prerequisite: CBUS 341.*

CBUS 454: Financial Analysis and Decision Making. 3 credits

Exposes students to various forms of financial decision making in a variety of contexts. Students will practice decision-making skills using financial contexts analysis in assessing firm performance, evaluating financial statement analysis, financial forecasting, and investment and financing decision analysis. Textbook case studies and computer software with current technology for financial modeling and data analysis are utilized. *Prerequisite: CBUS 341.*

MANAGEMENT COURSE DESCRIPTIONS

CBUS 295: CBUS 395 and CBUS 495. Leadership and Professional Development I, II, and III. 1 credit each

This seminar series is required for all undergraduate business students. One course is to be completed each academic year beginning with the sophomore year. Each course serves as a prerequisite for the following course in the series. The courses are designed to help students identify, appreciate and capitalize on natural strengths that will enable them to communicate, learn, and think more effectively. They will also be able to make critical decisions more efficiently and set realistic goals for success in college and the world of work. Students learn leadership attributes, roles and responsibilities; resume preparation, teamwork and group presentations, emotional intelligence, importance of credit and being credit worthy, etiquette skills, conflict resolution as well as other personal and professional development skills needed to function successfully in today's business environments. *Prerequisites: CBUS 295 Leadership and Professional Development I- CGED 100 and CGED 101; CBUS 395 Leadership and Professional Development II – CBUS 295 CBUS 495 Leadership and Professional Development III – CBUS 395*

CBUS 325: Business Communication.

3 credits

This is an advanced writing course which adapts standard English to the needs of business. The student develops a working knowledge of written and oral communication and strengthens interpersonal communication skills and job-search techniques. *Prerequisites: CENG 105, 106, and STA 101*

CBUS 330: Legal, Social, and Ethical Aspects of Business I.

3 credits

Introduction to business law. This course surveys the nature, types, and functions of laws regulating businesses. Students are introduced to the role of the court systems in business and the concepts of contract and agency. Students are also introduced to the social and ethical aspects of business. *Prerequisites: ECO 251 and ECO 252, CBUS 207 and CBUS 208.*

CBUS 331: Legal, Social, and Ethical Aspects of Business II.

3 credits

Continuation of CBUS 330. Examine partnerships, corporations, commercial paper, secured transaction sales, consumer credit, bankruptcy, and modern legislation regulating business. Increased emphasis on social and ethical responsibilities of management. *Prerequisite: CBUS 330.*

CBUS 337: Introduction to International Business Management.

3 credits

Study of domestic and foreign environmental factors affecting the international operations of United States business firms. The course stresses personal experiences and observations regarding leadership and helps students assess leadership qualities and style. *Prerequisite CBUS 340.*

CBUS 340: Principles of Management.

3 credits

Conceptual framework for the study, evaluation, and practice of management. Emphasis is on planning, organizing, staffing, influencing, and controlling as these factors affect managerial decision making. Addresses problems of both the sole proprietorship and the corporation. *Prerequisites: ECO 251 and ECO 252, CBUS 207 and CBUS 208, MAT 209 and MAT 210.*

CBUS 372: Personnel Management.

3 credits

Exploration of organizational behavior and human performance in the organization. Students examine structure, the selection process, performance appraisal, control systems, and reward practices as means of affecting human behavior in organizations. *Prerequisite: CBUS 340.*

CBUS 450: Marketing Management.

3 credits

Develops the environmental, managerial, and strategic planning aspects of marketing theory and practice. Experience in producing an actual marketing plan. *Prerequisites: CBUS 313 and 335.*

CBUS 468: Organizational Behavior or CPSY 318.

3 credits

Exploration of organizational behavior and human performance in organization. Students examine structure, the selection process, performance appraisal, control systems, and reward practices as means of affecting human behavior in organizations. *Prerequisite: CBUS 340. or CPSY 318, Industrial and Organizational Psychology*, may be taken as a substitute course. Survey of methods and findings in the scientific study of humans at work as applied to business, industry and government. Topics include employee selection, training and motivation. *Prerequisites: CPSY 211 and CBUS 313.*

CBUS 471: Global Leadership.

3 credits

Students will investigate the leadership tasks which face managers in companies with worldwide operations. Initially, students will identify the forces of global change and the strategic challenges

which they present to managers. Subsequently, students will examine the leadership characteristics required to manage global operations in a changing environment. *Prerequisite: CBUS 340.*

CBUS 472: Quality, Diversity and Productivity Improvement. 3 credits

This course provides an alternative to the traditional learning-teaching paradigm. It is designed in an integrated fashion. It fosters an “emerging paradigm” of systems thinking and learning regarding the disciplines of quality, diversity management and productivity improvement. Traditional boundaries will be crossed. To place the course material in one category would be like managing each function of a company in isolation and independently. *Prerequisite: CBUS 340*

CBUS 480: Entrepreneurship and Enterprise. 3 credits

Analysis of procedures necessary for developing or acquiring a major management and equity position in a new or existing business venture. The course focuses on the problems of purchasing or initiating an enterprise and the analysis needed to address those problems rather than on day-to-day management. *Prerequisite: CBUS 335.*

CBUS 485: Business Policy. 3 credits

Integration of knowledge from various functional fields of business. Students approach policy making and administration from a top-management point of view. *Prerequisites: CBUS 335, CBUS 340 and CBUS 341.*

CBUS 488: Business Internship. 3 credits

Students obtain credit from practical experiences in supervised business internship programs. At least six (6) seminars from LPD program required and four (4) interviews through the Career Planning and Placement Office (CPPC). Prior approval from the Chairperson is required.

MARKETING COURSE DESCRIPTIONS

CBUS 335: Principles of Marketing. 3 credits

This course provides an overview of the core concepts of marketing. Emphasis is placed on developing an ethical framework which uses the elements of the marketing mix to provide customer satisfaction in the global marketing of goods and services. Topics include assessment of the marketing environment, designing and conducting marketing research, and determining what elements are most important to customers as they make purchasing decisions. *Prerequisites: CECO 251 and CECO 252, CBUS 207 and CBUS 208, MAT 209 and 210.*

CBUS 336: Consumer Behavior. 3 credits

This course provides an overview of the processes that consumers utilize to evaluate, purchase, use and dispose of goods and services expected to satisfy their needs. Insights into consumer identity issues are provided as a background for presenting the consumer behavior concepts, processes, and models that help explain differences in consumer’s pre and post-purchase behavior and choice. Implications for marketing strategies (e.g., market research procedures, market segmentation, product design, pricing, and promotion) are discussed. *Prerequisite: CBUS 335.*

CBUS 411: Retailing. 3 credits

A study of the basic concepts and principles of retailing and its role in distribution in terms of administrative organization, site selection, buying, pricing, merchandising, promotions and current trends in retailing. *Prerequisite: CBUS 335.*

CBUS 421: Introduction to Professional Sales. 3 credits

A study of the theory and practice of professional sales with special emphasis on application of concepts in actual sales presentations. *Prerequisite: CBUS 335.*

CBUS 422: International Marketing. 3 credits

Analysis of the multinational process of planning and promotions of goods, ideas, and services worldwide. Special consideration of Third World economics is stressed. *Prerequisite: CBUS 335.*

CBUS 431: Principles of Advertising. 3 credits

Course is designed to introduce students to the field and practice of advertising with an emphasis on the pervasiveness of advertising in contemporary society. The student will develop knowledge of the business, creation and media placement of advertising, and will become acquainted with advertising management, strategies and processes. *Prerequisite: CBUS 335.*

CBUS 445: Marketing Research. 3 credits

The gathering, analysis, and presentation of information to guide marketing decisions. Includes research project design, use of information sources, and research report preparation. *Prerequisites: CBUS 313 and CBUS 335.*

CBUS 450: Marketing Management. 3 credits

Develops the environmental, managerial, and strategic planning aspects of marketing theory and practice. Experience in producing an actual marketing plan. *Prerequisites: CBUS 313 and CBUS 335.*

CHEMISTRY COURSE DESCRIPTIONS

CCHE 111 and 112: General Chemistry I and II. 4 credits each

CCHE 111: This is the introductory course in college chemistry. The topics covered in this course include: stoichiometry, atomic structure, molecular structure and bonding and gas laws. Three [3] hours of lecture, three [3] hours of laboratory and three [3] hours of recitation are required. (4 credit hours)

CCHE 112: This is the continuation of Chemistry 111. The topics covered in this course include: kinetics, equilibria, thermodynamics, and electrochemistry. Three [3] hours of lecture, three [3] hours of laboratory and three [3] hours of recitation are required. *Prerequisite: CCHE 111.*

CCHE 211 and 212: Analytical Chemistry I and II. 4 credits each

CCHE 211: Study of homogeneous and heterogeneous equilibria to include principles related to ionization, solubility, complex ions and molecules, oxidation and reduction in solution, redox potentials, electrochemical cells, and quantitative volumetric and gravimetric analysis. (Three [3] lecture hours and six [6] laboratory hours per week are required.) *Prerequisites: CCHE 111 and 112.*

CCHE 212: Second half of the analytical chemistry sequence. Focuses on principles and stoichiometry relating to acidimetry, alkalimetry, redox methods, and iodometry. Gravimetric, electrometric, optical, chromatographic, and other modern instrumental methods of analysis and the basic chemical theory related to these procedures are studied. (Three [3] lecture hours and six [6] laboratory hours per week are required.) *Prerequisite: CCHE 211.*

CCHE 231 and 232: Organic Chemistry I and II.**4 credits each**

CCHE 231: This is an introduction of the chemistry of carbon. The topics covered include: bonding, molecular structure, reaction mechanisms and spectroscopy. Studies are the properties of aliphatic and aromatic compounds. (Three [3] lecture hours, three [3] laboratory hours and one and one-half [1.5] recitation hours per week are required.) *Prerequisites: CCHE 111 and 112.*

CCHE 232: This is a continuation of CCHE 231. The topics covered include: bonding, molecular structure, reaction mechanisms and spectroscopy. Studies are the properties of aliphatic and aromatic compounds which include proteins, carbohydrates, drugs and biomolecules. Three [3] lecture hours, three [3] laboratory hours, and one and one-half (1.5) recitation hours per week are required. *Prerequisites: CCHE 231.*

CCHE 341 AND 342: Physical Chemistry I and II.**3 credits each**

CCHE 341: Study of the laws and theories of chemical phenomena, including elementary thermodynamics, the gaseous, liquid, and solid state, equilibria, and chemical kinetics (rates of chemical reactions, and kinetics of complex reactions, and some molecular reaction dynamics). (Three [3] lecture hours per week.) *Prerequisites: CCHE 211; CPHY 111 and 112; CMAT 111, 112, 211, and 212.*

CCHE 342: Elementary quantum mechanics, molecular reaction dynamics activated complex theory and dynamics of molecular collisions and the application of elementary quantum mechanics to atomic and molecular structure and spectroscopy. (Three [3] lecture hours per week) *Prerequisites: CCHE 211; CPHY 111 and 112; CMAT 111, 112, 211, and 212.*

CCHE 341L/342L: Physical Chemistry I & II Laboratory/Recitation.**1 credit each**

Laboratory investigations in physical chemistry. Experiments carried out include coverage of five major areas of physical chemistry: thermodynamics, spectroscopy, kinetics, quantum mechanics, and statistical mechanics. (One [1] credit each, four [4] laboratory/recitation hours per week are required.)

CCHE 381 AND 382: Junior-level Chemistry Seminar I & II.**1 credit total**

This is a one-hour lecture/seminar course. CCHE 381 Zero (0) credit. CCHE 382 One (1) credit. One year of the course generates one hour of credit.

CCHE 412: Instrumental Methods.**4 credits**

A lecture and laboratory course covering the theory, design, practical uses and applications of typical spectroscopic and chromatographic instrumentation. Particular focus is on the application of the instrumentation for chemical analysis. (Three [3] lecture hours and six [6] laboratory hours per week are required.) (This course is numbered 512 for graduate students and is three (3) credits.) *Prerequisites: CCHE 211, 341, and 342.*

CCHE 421: Inorganic Chemistry.**3 credits**

This is an introduction to the descriptive chemistry of the elements. The topics covered in this course include: Brønsted and Lewis acids and bases, electronic and molecular structure and coordination chemistry. (Three [3] lecture hours with laboratory each week are required.) *Prerequisites: CCHE 341 and 342.*

CCHE 431/431L Advanced Organic Chemistry I/Laboratory.

Lecture 3 credits, Lab 1 credit

This course is a study of the advanced topics in carbon chemistry. The topics covered include: Critical evaluation of modern organic theory mechanisms and rearrangements. It also includes a detailed study of important organic reactions and their application to selected laboratory experiments. (Three [3] lecture hours and one [1] laboratory hour per week are required.) *Prerequisites: CCHE 231 and 232.*

CCHE 432/432L: Methods of Structure Determination.

Lecture 3 credits, Lab 1 credit

This course covers the theory and techniques used in the determination of the structure of organic compounds. The topics covered include separation techniques as well as the use of UV/VIS, IR, NMR, ESR, Raman and mass spectroscopy to elucidate structures of organic compounds. (Three [3] lecture hours and one [1] laboratory hour per week are required.) *Prerequisite: CCHE 431.*

CHE 441: Mathematical Methods in Chemistry.

3 credits

A study of the mathematical methods used in physical chemistry, including applications of linear algebra and differential equations. (Three [3] lecture hours per week) *Prerequisites: CCHE 341 and 342.*

CCHE 451 and 452: Biochemistry.

3 credits each

CCHE 451 (dual numbering with C BIO 491): Introduction to the structure and function of biological molecules, proteins, carbohydrates, lipids and nucleic acids. (Three [3] lecture hours per week) *Prerequisites: CCHE 231 and 232; C BIO 111 and 112.*

CCHE 452 (dual numbering with C BIO 492): Basic metabolic path ways governing the function of cells and tissues (intermediary metabolism). Fundamentals of enzymatic catalysis, including kinetics and mechanism. (Three(3) lecture hours per week.) *Prerequisites: CCHE 231 and 232; C BIO 111 and 112.*

CCHE 480: Special Topics in Chemistry.

4 credits

Detailed study of a series of advanced topics in any area of chemistry. Students undertake independent projects. (Three [3] lecture hours per week with required laboratory)

CCHE 481 AND 482: Senior-level Chemistry Seminar I & II.

1 credit total

This is a one-hour lecture/seminar course. One year of the course generates one hour of credit. *CCHE 481 zero (0) credit, CCHE 482 one (1) credit*

CHINESE COURSE DESCRIPTIONS

CFLC 101/102: Beginning Chinese (Level I).

3 credits each

Introduces students to Chinese (Mandarin) phonetic and writing system and basic conversational skills through a multimedia approach, emphasizing communication proficiency. Classes meet three (3) hours per week, and an additional hour of laboratory per week is required.

CFLC 201/202: Intermediate Chinese (Level II).

3 credits each

Continued emphasis on the four language skills—listening, speaking, reading, and writing through the multimedia approach. Classes meet three (3) hours per week, and an additional hour of laboratory per week is required.

CFLC 301/302: Advanced Chinese (Level III). **3 credits each**
Emphasis on topic-oriented conversation, listening comprehension, short compositions and reading comprehension through the multimedia approach.

CFLC 440: Directed Study. **3 credits**
Special interest areas for in-depth study under the supervision of an instructor. The supervising instructor in consultation with the department chair must approve all special study projects in advance.

CFLC 441: Chinese Culture and Civilization. **3 credits**
Study of various aspects of Chinese culture (including history, philosophy and religion) as reflected in family life, language, literature, art, etc. Conducted in English.

CFLC 480: Modern China Through Film and Literature. **3 credits**
Introduces students to modern China, including its social, economical, and political changes, through film and literature. Conducted in English.

COURSE DESCRIPTIONS COMPUTER SCIENCE

CCIS 100: Information Technology and Computer Application. **3 credits**
A hands-on introduction to personal computer concepts and productivity applications. Computer concepts include basic architecture, the Internet, and operating systems. Productivity applications include word processing, spreadsheets, graphical presentations and relational database usage.

CCIS 101: Computer Science: An Overview. **4 credits**
An introductory course providing a theoretical overview of the primary topics in Computer Science including hardware concepts, operating systems, programming, data structures, database systems, artificial intelligence, complexity theory, networking security and a discussion of ethics.

CCIS 103: Scientific Programming. **3 credits**
An introduction to programming concepts for biology, chemistry, mathematics, and physics majors. The course introduces the scientific programming and analysis tool Matlab. *Corequisite 103L.*

CCIS 103L: Scientific Programming Laboratory. **0 credits**
A hands-on guided experience in developing Mat lab programs. (Must be taken while completing CCIS 103.) *Corequisite: CCIS 103.*

CCIS 104: Business Programming. **3 credits**
An introduction to programming concepts for business majors. The classroom lecture utilizes a procedural pseudocode, while the associated recitations require hands on programming. *Corequisite: CCIS 104R.*

CCIS 104R: Business Programming Recitation. **0 credits**
A hands-on guided programming experience in developing COBOL and Visual BASIC programs. (Must be taken while completing CCIS 104.) *Corequisite: CCIS 104.*

CCIS 105: Programming Problem Solving. **3 credits**
An introduction to the fundamental concepts of problem solving focusing on programming oriented solutions and object oriented paradigm. Students are encouraged to be enrolled in or to have already completed CMAT 111, Calculus I. Guided Laboratory is required. *Corequisites: CCIS 101 and CCIS 105L.*

CCIS 105L: Problem Solving Laboratory. **0 credits**
A hands-on guided problem-solving experience that supplements CCIS 105. *Corequisite: CCIS 105.*

CCIS 106: Programming. **3 credits**
A continuation of CIS 105 utilizing a modern programming language. Guided Laboratory is required. *Prerequisite: CCIS 105, Corequisite: CCIS 106L.*

CCIS 106L: Programming Laboratory. **0 credits**
A hands-on guided programming experience in developing programs. *Corequisite: CCIS 106*

CCIS 121: Introduction to Computer Systems. **3 credits**
Introductory study of logical organization of computer systems. Topics include input-output processing, memory and processor structures and basic logic circuit design. Assembly language programming will be emphasized. *Prerequisite: CCIS 101.*

CCIS 123: Data Structures. **3 credits**
Introductory study of data structures, including record, file, linked structures, lists, stacks, queues, graphs and trees. Guided laboratory is required. *Prerequisite: CIS 106, Corequisite: CCIS 123L.*

CCIS 123L: Data Structures Laboratory. **0 credits**
A hands-on guided development programming experience using Java to implement aspects of the study of data structures. *Corequisite: CCIS 123.*

CCIS 200: Advanced Programming. **3 credits**
A continuation of CCIS 106 emphasizing advanced Java programming concepts and an introduction to procedural concepts utilizing the C++ language. Guided laboratory. *Prerequisite: CCIS 106, Corequisite: CCIS 200L.*

CCIS 200L: Advanced Programming Laboratory. **0 credits**
A hands-on guided development programming experience using Java and C++. *Corequisite: CCIS 200.*

CCIS 227: Deductive Systems. **3 credits**
An introductory study of propositional and predicate systems, including topics such as standard forms, resolution principle and refutation algorithms, computability, Finite State Automata and Turing Machines, with specific reference to applications in Computer Science. *Prerequisite: CMAT 311.*

CCIS 301: Computer Systems Software. **3 credits**
Study of basic concepts of computer software systems, including operating systems, language translators, utilities, linkers and loaders. Concepts will be reinforced via programming projects using Assembler Code. *Prerequisite: CCIS 476.*

CCIS 321: Introduction to Software Engineering. **3 credits**
Introductory study of large software development issues, including requirements analysis, specification, design, testing and maintenance. *Prerequisites: CCIS 123 and CCIS 200, Corequisite: CCIS 474.*

-
- CCIS 471: Introduction to Computer Algorithms.** **3 credits**
Introductory study of algorithm design, using appropriate data structures. Topics include algorithms for sorting, searching and graph traversals and complexity issues. *Prerequisites: CCIS 123 and CCIS 200.*
- CCIS 472: Introduction to Computer Architecture.** **3 credits**
Study of logical organization of computer hardware and functional components. *Prerequisites: CCIS 121, CCIS 123, and CCIS 200.*
- CCIS 473: Introduction to Operating Systems.** **3 credits**
Study of basic operating systems concepts, including multiprogramming, resource management and implementation. *Prerequisites: CCIS 123 and CCIS 200.*
- CCIS 474: Introduction to Database Systems.** **3 credits**
Study of basic concepts of databases, including various models, query processing and other topics of interest. *Prerequisites: CCIS 123 and CCIS 200.*
- CCIS 475: Introduction to Artificial Intelligence.** **3 credits**
Introductory study of intelligent problem solving and search algorithms, inference systems, machine intelligence and knowledge organization. *Prerequisites: CCIS 123 and CCIS 200.*
- CCIS 476: Programming Languages and Compilers.** **3 credits**
An overview of syntactic and semantic aspects of programming languages, including basic concepts of parsing, translation, and execution of procedural languages. *Prerequisites: CCIS 123, CCIS 200.*
- CCIS 482: Introduction to Computer Information Systems.** **3 credits**
Study of methodologies for designing and implementing management information systems with emphasis on system development, implementation and evaluation. *Prerequisite: CCIS 123 and CCIS 200.*
- CCIS 490: Practical Training.** **3 credits**
Training with industry and government laboratories via internship and cooperative education programs. To receive credit for this course, a student must complete at the equivalent of 6 months of full-time employment with the same employer, receive a satisfactory performance rating from the employer, and write a paper describing in reasonable detail the work environment, activities, responsibilities involved, and knowledge and experience gained from the employment. *Prerequisite: Consent of the department.*
- CCIS 491: Information Systems Research/Design Project.** **3 credits**
Prerequisite: Consent of department.
- CCIS 492: Database Research/Design Project.** **3 credits**
Prerequisite: Consent of department.
- CCIS 493: Systems Software/Hardware Research/Design Project.** **3 credits**
Prerequisite: Consent of department.
- CCIS 494: Software Engineering Research/Design Project.** **3 credits**
Prerequisite: Consent of department.

CCIS 495: Artificial Intelligence Research/Design Project.**3 credits**

Prerequisite: Consent of department.

CCIS 499: Senior Design Project.**3 credits**

A one-semester course culminating in a design project acceptable to the department. This course will be managed by a collection of faculty members offering a variety of project environments for the students. *Prerequisites: Consent of Advising Professor*

DEPARTMENT OF CURRICULUM COURSE DESCRIPTIONS**CECE 200: Introduction to Early Childhood Education.****3 credits**

Course experiences are designed to provide a survey overview of early childhood education (preschool thru grade 5) as professional field of study and practice. Emphasis is on the role and function of early childhood education (ECE) programs in providing a learning foundation for urban, minority children. Course contents include an introduction to historical and contemporary issues, pioneers, and approaches in ECE. *Prerequisite: Admission to Teacher Education or Educational Studies.*

CECE 206: Foundations of Mathematics for Teachers I.**3 credits**

Extends candidates' content proficiency, conceptual understanding of numbers, numeration systems and fundamental concepts of algebra, geometry, probability, statistics, and measurement. The presentation of these principles and aspects of mathematics will be interpreted through the National Council of Teachers of Mathematics (NCTM) standards in particular standards on problem solving, reasoning, technology and making connections to the real world. *Prerequisite: Admission to Teacher Education or Educational Studies.*

CECE 212: Preprofessional Lab (Observing).**1 credit**

This entry-level practicum introduces potential teacher education candidates seeking admission to Early Childhood programs to the varied educational institutions that support the schooling process (e.g., museums, science centers, and other community resources). Potential candidates can earn service learning hours as they complete course content. *Prerequisite: Admission to Teacher Education or Educational Studies.*

CECE 213: Practicum I (Observing and Exploring).**2 credits**

This entry-level practicum is designed for potential teacher education candidates. The practicum provides experiences that introduce potential candidates to teachers, learners, and the school community through processes of observing and exploring. Course assignments engage potential candidates in activities that strengthen skills in writing and critical observations. *Prerequisite: Admission to Teacher Education or Educational Studies.*

CECE 214: Literature for Children and Youth.**3 credits**

The criteria for selection and evaluation of books for children and youth, in terms of appropriateness for their stages of growth and development. The course includes the use of literature for enhancing cultural pluralism and strategies for presenting literature in creative ways.

CECE 300: Literacy in Early Childhood I.**6 credits**

Insights into the nature of the reading process and emergence of reading readiness skills will be emphasized. Candidates learn to provide a developmentally appropriate environment for reading to begin. The course focuses on the strategies needed to teach reading to the preschool, kindergarten,

first-grade, and second-grade student. A field component provides practical experience. *Prerequisite: Admission to Teacher Education or Educational Studies.*

CECE 301: Literacy in Early Childhood II. 2 credits

Examines, in depth, the content and methods used in teaching reading and writing effectively. Candidates create a classroom climate where literacy flourishes. Examines various theories and methodologies; issues germane to the urban school environment are addressed. The use of multicultural literature and ways to serve the linguistically different child are included. *Prerequisite: Admission to Teacher Education or Educational Studies.*

CECE 302: Child Development: The Urban Learner. 3 credits

Engages candidates in an exploration of how children learn and develop, of myriad influences on children's development, and theories of child development. Facilitates candidates' development of strategies which promote optimal learner growth. Focuses special attention on cultural elements which influence the development of children in urban schools and communities. Guides candidates to an appreciation of the interdependence of cognitive, physical, and affective domains in the overall development of children. *Prerequisites: See Educational Studies Admissions requirements*

CECE 312: Language Arts I: Content. 3 credits

Instruction in the elements of the language arts program, with emphasis on candidates' own achievement of proficiency in language arts skills. Candidates review teacher competencies needed to teach language arts effectively. *Prerequisite: Admission to Teacher Education or Educational Studies.*

CECE 313: Practicum II (Planning and Implementing). 2 credits

This practicum promotes the development of teacher education candidates' knowledge and understanding of the schooling process and its influences and facilitates candidates' awareness of the foundational underpinnings that shape contemporary educational practices. *Prerequisite: Admission to Teacher Education.*

CECE 314: Creative Development. 4 credits

This course offers guided observations of and experiences in application of instructional methodologies. Emphasis on interdisciplinary methodology, culturally appropriate pedagogy, integration of creative activities and on assessment. Designed to offer candidates the opportunity to gain competency in the use of a variety of media and explore potentials in creative arts. *Prerequisite: Admission to Teacher Education or Educational Studies.*

CECE 316: Practicum III (Instructing, Connecting & Assessing). 2 credits

This practicum focuses on the instructional process and skills, resources, knowledge and interactions that ensure student learning. Experiences are provided which promote candidates' awareness of the importance of developing and nurturing family relationships to support the teaching/learning process. Candidates are guided to use their specific content knowledge to establish teaching/learning objectives. *Prerequisite: Admission to Teacher Education or Educational Studies. Corequisites: CECE 426, CECE 452, CECE 498.*

CECE 317: Practicum IV (Evaluating, Analyzing & Reflecting). 1 credit

This practicum stresses principles, practices and tools of evaluation, analyses, and reflection on the schooling processes. Attention is also given to ethical and practical considerations of testing and to the implications of cultural diversity in the process of evaluating, analyzing, reflecting and making decisions. *Prerequisite: Admission to Teacher Education or Educational Studies.*

CECE 402: Professional Development.**1 credit**

This course provides the opportunity for candidates to enhance their skills in interpersonal relationships. It examines situations encountered by teachers, school administrators, supervisors, and group leaders. Professional presence, which includes poise, self-confidence, control and style which empower the candidate and command respect will be emphasized. *Prerequisite: Admission to Teacher Education or Educational Studies.*

CECE 404: Early Childhood Curriculum and Methods.**3 credits**

Study of origins, philosophy, organization, and implementation of curriculum models for early childhood education. Candidates also examine teaching methods and materials used during the early years, and principles and practices employed in early learning programs. *Prerequisite: Admission to Teacher Education or Educational Studies.*

CECE 405: Preschool Program Development.**3 credits**

Examination of organizational structure, aims, purposes, and variety of preschool educational programs, including teacher characteristics, classroom organization, and program scheduling. The laboratory component allows students to observe and participate in a preschool setting. *Prerequisite: Admission to Teacher Education or Educational Studies.*

CECE 415: Methods of Teaching Reading and Writing.**3 credits**

Knowledge, skills, and attitudes necessary for effective organization and implementation of the reading program. Candidates learn to promote reading as an informative, rewarding, and essential component of education. The course includes a review of widely used methods in teaching reading and a laboratory experience in which candidates practice instructional strategies. *Prerequisites: Admission to the Teacher Education or Postbaccalaureate Program*

CECE 426: Integrated Teaching of Elementary Math and Science.**3 credits**

This course uses readings, case studies, instructional technology, and a school-based practicum to help preservice teachers develop the scientific and mathematical knowledge, skills, and dispositions needed to teach science and mathematics in grades P-5. It examines research and theory in the field of math and science instruction and assessment and emphasizes culturally appropriate methodology in the integration of math and science. *Admission to the Teacher Education or Postbaccalaureate Program, Corequisite: CECE 316*

CECE 444: Preservice Teaching – Early Childhood Education.**3 credits**

Practical experiences with children, preschool to grade five, in approved educational settings and under the supervision of state-certified teachers. Through daily work and other interactions, the candidate integrates and utilizes the knowledge and skills gained in major courses. CECE 444 is a full-day practicum daily lasting sixteen weeks. The preservice teacher is required to attend the campus-based reflective seminars once per week and other teaching-related workshops and activities. *Prerequisites: Completion of all core and major courses with required grades; passing scores on the GACE/Praxis I examination and the GACE/Praxis II examination in the appropriate field; appropriate recommendations; acceptable interview.*

CECE 452: Integrated Teaching of Social Studies and Language Arts.**3 credits**

This course will examine, in depth, the methods used in teaching the integration of Social Studies into the Language Arts in the elementary school from an interdisciplinary, multicultural approach. Instruction in the elements of social studies and language arts, with emphasis on knowledge required for the teaching of content skills and methods in the language arts and social studies programs

addressing national and state standards. *Prerequisites: Admission to the Teacher Education or Postbaccalaureate Program, CECE 300 Corequisite: CECE 316.*

CECE 498: Developing Family and Community Relationships. 3 credits

The study of current and historical theory and practices in parent education and the impact of connecting with the community. The course reviews parents' and other adults' involvement with schools and covers the role of parent education in the school's curriculum and the theoretical and practical aspects of parental involvement in the educational setting. The course takes an in-depth view of the role that the community plays in shaping the development of children and youth. *Prerequisite: Admission to the Teacher Education, Educational Studies, or Postbaccalaureate Programs.*

CEDC 199: Preprofessional Seminar. 0-3 credits

Provides intensive instruction in the concepts, strategies, and content covered on the GACE/Praxis I exam. The strategies will include both generic and subject matter test-taking strategies.

CEDC 201: Teaching Geography Themes in Education. 3 credits

This course is designed to cover basic concepts in human geography, including population, political, cultural, urban, and economic geographical concepts needed to teach. Taught as a survey course in human geographical inquiry rooted in the four academic traditions of geography: the earth science tradition, culture environment tradition, locational tradition, and area analysis tradition. *Prerequisite: Admission to Teacher Education or Educational Studies.*

CEDC 262: Educational Technology. 3 credits

Candidates gain experience with a variety of computer applications and technological tools used in education. Candidates have hands-on training with applications including word processing, Internet, spreadsheet, database, presentation, and digital technology tools. Significant focus is placed on the development of Web sites and electronic portfolios. This course is designed to satisfy the Georgia Teacher Certification Computer Skills Competency Requirement.

CEDC 303: Human Relations. 3 credits

Opportunity for students to enhance their skills in interpersonal relationships. The course uses role-playing and other drama techniques to examine the quality of human relations between various groups. *Prerequisite: Admission to Teacher Education or Educational Studies.*

CEDC 305: Presentation Skills. 3 credits

Simulated situations in which students practice the skills needed for effective oral presentations in their major areas. Through closed-circuit video presentations, students examine situations encountered by teachers, school administrators, sales representative managers, supervisors, and group leaders. *Prerequisite: Admission to Teacher Education or Educational Studies.*

CEDC 360: Educational Measurement. 3 credits

Study of statistical concepts and terminology for education. Students gain knowledge of widely used standardized education tests, such as CAT and ITBS. The course explores test construction, selection, administration, and interpretation of test results to pupils and parents. This course is designed to provide experiences in test taking, analysis, construction, and interpretation of results. *Prerequisite: Admission to the Teacher Education or Postbaccalaureate Certification Program.*

CEDC 401: Classroom Management.**2 credits**

This course includes a review of organization and scheduling practices which maximize a positive learning environment. Candidates explore the use of guidance and discipline techniques for managing classroom behavior. Through simulations of typical management problems in the classroom, candidates gain understanding of how to structure and organize the environment for effective learning. *Prerequisite: Admission to the Teacher Education, Educational Studies, or Postbaccalaureate Programs.*

CEDC 408: Multicultural and Global Education.**3 credits**

Introduces teacher education candidates to concepts, principles, practices, and implications of multicultural and global education. Major attention is given to the social justice dimension of multicultural education and to candidates' skill in developing lessons which achieve social justice objectives in urban schools and communities. *Prerequisite: Admission to Teacher Education or Educational Studies.*

CEDC 492: Cooperative Education Experience.**9-12 credits**

Educational Studies candidates spend a full semester (at least 12 weeks) working in an education related agency appropriate to their concentration or career goal. Experiences are supervised and monitored by a University professor and an onsite supervisor. Experiences are accompanied by a weekly seminar and require that candidates submit evaluations and reports that may include action research. *Prerequisite: Admission to Educational Studies and acceptable recommendations and interviews (course is completed during the last semester).*

CEDC 499: Independent Study.**1-3 credits**

Identification and investigation of a particular topic, issue, or problem in the field of education. Under the supervision of a major area professor, students conduct in-depth studies of specific problems and produce written accounts of their studies. Varying credit hours require specific activities as follows: one credit hour requires students to attend colloquia; two credit hours require attendance at symposia; three credit hours may include attendance at four seminars. *Prerequisites: approval of the supervising professor and at least a 2.5 GPA.*

CEDF 211: Foundations of Education: The Urban Reality.**3 credits**

An introduction to the profession of teaching from an urban context. Examines the philosophical, historical, and sociological roots of basic questions and possible solutions in the field of American education and, specifically, in urban communities.

ENGINEERING DUAL-DEGREE COURSE DESCRIPTIONS

Courses common to all Engineering Concentrations (Architectural, Chemical, Civil, Electrical, Mechanical, etc.)

CEGR 101: Introduction to Engineering.**3 credits**

Introduction to the engineering profession and various branches of engineering utilizing audio-visual material, lectures by visiting professionals and trips to plants and factories, emphasis on professionalism and ethics, engineering solutions, representation of technical information, engineering estimations and approximations, dimensions, units and conversions with introduction to statistics, mechanics, electrical theory and engineering economics. *Prerequisite: CMAT 105.*

CEGR 110: Engineering Computer Graphics.**3 credits**

Introduction to engineering graphics and visual communication including freehand sketching, engineering design processes, 2D/3D and solid CAD models, development and interpretation of drawings, projection standards and specifications for product realization. *Prerequisite: CMAT 105.*

ENGINEERING ELECTIVE COURSE DESCRIPTIONS**CEGR 201: Electrical Circuit Analysis.****3 credits**

This course is designed to enable students to analyze basic circuits and to understand more advanced circuits that have circuit elements such as resistors, capacitors, inductors, voltage and current sources (using Kirchhoff's laws, mesh and nodal analysis, network theorems to DC and AC circuits and also by computer simulation using PSPICE software). *Prerequisites: CMAT 112, CPHY 122.*

CEGR 211: Engineering Statics.**3 credits**

Study of the elements of statics in two and three dimensions using vector algebra, laws of equilibrium applied to particles, rigid bodies and structures, friction, centroids. *Prerequisites: CMAT 112, CPHY 121*

CEGR 314: Matlab/Labview for Engineers.**3 credits**

Application of MathLab/Labview techniques to various engineering problems including numerical methods for solving nonlinear problems. *Prerequisites: CMAT 112, 212.*

CEGR 311: Engineering Dynamics.**3 credits**

Kinematics of rectilinear and curvilinear motion of particles, kinematics of rigid bodies in plane motion, kinetics (work and energy relations, impulse and momentum principles) of particles, systems of particles, and rigid bodies in plane motion. *Prerequisite: CEGR 211.*

CEGR 102: Introduction to Engineering Design.**2 credits**

Introduction to engineering design process and design concepts; applications to design problems in the various branches of engineering; practical design assignments. *Prerequisite: CMAT 105.*

NOTE: DDEP Students must meet the DDEP Coordinator for academic advisement and also consult with the Science Department Chairperson or designated DDEP advisor to determine the proper course sequence.

ENGLISH COURSE DESCRIPTIONS**COLLEGE COMPOSITION****6 credits****CENG 105 and 106: College Composition I and II.**

A one-year course emphasizing development of college-level writing skills. In CENG 105, students write multiparagraph essays, learning the importance of thesis, topic sentence and paragraph development, along with how purpose and audience control the focus of the idea. During CENG 106, students continue to work on multiparagraph themes, including the persuasive essay and the research paper. A minimum grade of "C" is required for each course. *CENG 105 is prerequisite to CENG 106.* These courses may not be taken simultaneously. A writing proficiency examination is administered as a requirement for exiting CENG 106.

CENG 231, 331 and 431: Seminar. **3 credits each**
Opportunities for majors to acquire career preparation and additional academic enrichment. Required of all majors each year except Freshman year.

CENG 201 and 202: Introduction to World Literature I and II. **3 credits each**
(Offered each semester for English Majors)
Selected world masterpieces, with emphasis on Western civilization and historical, literary, and philosophical antecedents of twentieth-century United States culture. Introduces concepts and vocabulary required for reading, analyzing, and interpreting literature. CENG 201 explores literature from the beginnings to the Renaissance, and CENG 202, the Renaissance to the present. *Prerequisite: "C" or above in CENG 105 and CENG 106.*

CENG 210: Literary Forms. **3 credits**
Introduction to the techniques of reading literature and writing about literature. English 210 includes the study of genre, rhetorical and literary devices, literary research and documentation. *Prerequisite to other English major courses.*

CENG 311: Advanced Grammar and Composition. **3 credits**
An advanced course in expository, descriptive, persuasive, and narrative writing, with emphasis on grammar, punctuation, and mechanics.

CENG 313 and 314: Survey of Major British Writers I and II. **3 credits each**
A study of authors whose lives, writings, and philosophies represent major stages in the literature of Great Britain. CENG 313 covers early British literature through the Renaissance; CENG 314 covers the Restoration to the present. CENG 313 includes writers such as Chaucer, Shakespeare, and Milton; CENG 314 includes writers from Dryden to Eliot.

CENG 315 and 316: Survey of Major United States Writers I and II. **3 credits each**
A chronological study of major writers in the United States from the eighteenth century to the present. CENG 315 explores early American writers, including Wheatley, Emerson, Irving, Poe, and Hawthorne. CENG 316 covers the literature from 1865 to the present; Whitman, Frost, Wright, Faulkner, Brooks and Morrison are included.

CENG 318: Colloquium. **3 credits**
An exploration of selected authors and literary works depending on the interests of faculty and students in the department.

CENG 320: Renaissance Literature. **3 credits**
A survey of major genres, authors, and social and philosophical changes in sixteenth-century England. Included are writers such as Wyatt, Spenser, Marlowe, Kyd, Bacon, Donne, and Johnson.

CENG 321: The Romantic Period. **3 credits**
A study of general characteristics of the period and its intellectual and cultural focus. Wordsworth, Coleridge, Byron, Shelley, and Keats are some of the authors included.

CENG 322: The Victorian Period. **3 credits**
A study of major essayists, novelists, playwrights, and poets from 1832 to 1901.

CENG 350: Technical Writing. **3 credits**

An emphasis on oral and written skills for technical communication. English 350 covers the basic forms of technical writing, including reports, abstracts, letters, and illustrations. *Prerequisite: grade of "C" or better in CENG 105 and CENG 106.*

CENG 357: Folk Literature. **3 credits**

An introduction to folklore, emphasizing folk literature and the comparison of various ethnic groups. Both oral and written literature are studied, including riddles, nursery rhymes, fairy tales, superstitions, legends, and popular sayings.

CENG 358: Southern Fiction and Folk Literature. **3 credits**

A study of representative works of southern writers, with concentration on nineteenth- and twentieth-century works by and about southerners. Emphasis is on creative works published after the Civil War.

CENG 397: Independent Study and Research. **3 credits**

An opportunity for all majors to conduct guided research on an author, era, or issue in literary studies. Depending on faculty availability, students may combine these aspects to reflect their particular interests.

CENG 409: Shakespeare. **3 credits**

A study of representative plays, including histories, tragedies, romances and comedies.

CENG 412: Creative Writing. **3 credits**

An opportunity for the novice and the experienced creative writer to develop imaginative expression in poetry, fiction, and drama. The course introduces students to the means of publication and competition.

CENG 413: Autobiography and Biography. **3 credits**

An interdisciplinary complement to previous or simultaneous study in literature, history, and culture. Focus is on the development of autobiography and biography as genres in the United States.

CENG 417: Methods of Teaching English in Secondary Schools. **3 credits**

A study of recent trends in methodology and materials used in the teaching of composition and literature. CENG 417 is designed especially for prospective English teachers.

CENG 418: History of the English Language. **3 credits**

An introduction to the study of language; the nature and function of language; and the historical changes in English phonology, morphology, grammar, and vocabulary from the beginnings of the language to the modern period.

CENG 419: Linguistics. **3 credits**

A survey of the matter and methods of modern linguistics, with units on the nature of language, linguistics, phonology, morphology and grammar.

CENG 459 and 460: African-American Literature I and II. **3 credits each**

A survey of African and African-American literature, with emphasis on the historical evolution and treatment of representative poetry, tales, short stories, and novels. CENG 459 covers colonial African-American literature to the Harlem Renaissance; CENG 460 covers the period from the Harlem Renaissance to the present.

CENG 461: Modern Literature.

3 credits

An examination of selected twentieth-century writers. CENG 461 emphasizes readings and discussions of significant works from Africa, Britain, Canada, India, Russia, the United States, and the Caribbean.

CENG 463: Medieval English Literature.

3 credits

A study of representative works from the Old and Middle English periods with special emphasis on Beowulf and Chaucer.

FASHION DESIGN/MERCHANDISING COURSE DESCRIPTIONS

CFAS 210: Principles of Fashion Apparel. Principles of Fashion Industry.

3 credits

Introduction to the fashion industry. Emphasis on fashion design, fashion merchandising and fashion marketing. *Prerequisites: CART 101 and 102.*

CFAS 201: Creative Fashion Presentation.

3 credits

Involves the study of the complexity of fashion presentations. Students will learn how to research, analyze, and forecast trends.

CFAS 220: History of Costume.

3 credits

Chronological study of costumes from ancient Egyptian to 20th-century styles. Emphasis on culture, art form, and climates are related to the cause and effect of costumes in each period. *Prerequisites: CART 101 and 102.*

CFAS 230: Textiles.

3 credits

Study of fibers, yarns, and weaves, fancy weaves, finishes and dyes. Students develop a familiarity with the application of fabrics in the apparel field. *Prerequisites: CART 101 and 102.*

CFAS 237: Fashion Illustration.

3 credits

Fundamentals of rendering to communicate fashion design ideas. Students learn to draw the male and female fashion figure. Students learn to utilize color, proportion, fabric and methods for making quick sketches to illustrate different styles.

CFAS 240: Apparel Construction I.

3 credits

Fosters the development of professional skills and techniques required for apparel construction. *Prerequisites: CART 101 and 102.*

CFAS 250. Visual Merchandising.

3 credits

Facets of visual merchandising including the make-up of a Visual Merchandising department and the associated aspects of visual identity. *Prerequisites: CART 101 and 102.*

CFAS 310: Flat Pattern.

3 credits

Fundamentals of basic principles of flat patternmaking are covered, including slopers for collars, sleeves, bodices, skirts, and pants. *Prerequisite: CFAS 240 or permission of instructor.*

CFAS 314: Promotional Planning Strategies.

3 credits

Comprehensive study integrating all phases of fashion-marketing channels. Emphasis on the scope and importance of each phase and the necessity of identifying target markets and developing appropriate strategies. *Prerequisites: CFAS 210.*

CFAS 320: Draping. **3 credits**

The execution of a design from working sketches to a finished garment using draping techniques of fabric on the dress form. *Prerequisite: CFAS 310 or permission of instructor.*

CFAS 325: Wardrobe Styling and Consulting. **3 credits**

Development of ideas for personal wardrobe styling, including photography, window display, promotion and fashion shows. Students will utilize creativity in the selection of fashion images which are then styled and photographed.

CFAS 340: Apparel Construction II. **3 credits**

A continuation of Apparel Construction I with emphasis on design details. Instruction in basic manipulation of commercial patterns to create individual details, construction of fully lined unstructured garments in intermediate level fabrics. *Prerequisites: CFAS 240*

CFAS 350: Fashion Accessory Design. **3 credits**

A capsulated overview of the field that identifies the industry's major components, products and processors, manufacturers and designers, retailers and promoters. *Prerequisites: CFAS 210, 220 and 240.*

CFAS 360: Fashion Apparel CAD. **3 credits**

Development of fashion design in various formats by utilizing computer-aided design software programs.

CFAS 401: Retail Mathematics. **3 credits**

Application of essential concepts, policies, procedures, mathematical calculations and interpretation of figures that relate to the many factors that produce profit in a fashion business. *Prerequisites: CMAT 103 and 104, CFAS 314.*

CFAS 402: Fashion Buying and Planning. **3 credits**

Examines budgeting, marketing objectives, volume and profit, merchandise assortment planning, expenditure control, and inventory management. Case studies highlight problems of the fashion marketplace. *Prerequisites: CMAT 103 and 104, CFAS 314, and 440.*

CFAS 410: Fashion Design Senior Collection. **3 credits**

A comprehensive course that allows students to apply skills in the development of a line of merchandise incorporating patternmaking, apparel construction and portfolio preparation. *Prerequisites: CART 101, 102, 201, CFAS 240, 310.*

CFAS 420: Fashion Show Production. **3 credits**

Involves the production of a full-scale fashion show featuring student designs and methods of promotion.

CFAS 425: Case Studies in Fashion Marketing. **3 credits**

Involves the application of fashion marketing to analyze and solve case study problems. Students learn to develop a plan of action. *Prerequisite: CFAS 314, CFAS 401.*

CFAS 430: Trend Forecasting. **3 credits**

The course provides information on current fashion trends in the market. Students will learn to predict looks of the future, develop reports based on observations of fashion trends and how trends influence the development of individual designs.

CFAS440: Retail Management.**3 credits**

Study of retail industry, emphasizing the interdependence of functional operations of stores, types of merchandising, and the interrelationship of the major facets of the industry and its markets. *Prerequisites: CFAS 210, 220 and 250.*

CFAS 450: Fashion Design Portfolio.**3 credits**

Development of a design portfolio utilizing various media. Students will develop a fashion portfolio of creative work in a specialized area by creating an original line. *Prerequisites: CART 277, CFAS 360 or permission of the Instructor.*

CFAS 480: Internship.**3 – 6 variable credits**

Student participation in a supervised fashion industry work experience to increase professional skills. Open only to majors.

CFAS 490: Fashion Merchandising Senior Seminar.**3 credits**

Capstone course. Study of problems in various aspects of the purchase of fashion merchandise and the planning involved in marketing merchandise and computer applications in retailing.

FRENCH COURSE DESCRIPTION**CFLF 101/102: Elementary French.****3 credits each**

Allows the student to acquire a basic level of communication in French and a familiarity with a variety of Francophone cultures through the utilization of the language in context. A variety of media, including audio, video and the Internet will be employed to complement the textbook. Classes meet three (3) hours per week and an additional hour per week of laboratory work is required. *Prerequisites: None for Elementary French 101; CFLF 101 for Elementary French 102.*

CFLF 201/202: Intermediate French.**3 credits each**

Allows the student to build on the knowledge and skills acquired in elementary French, with emphasis placed on communication proficiency and the forging of a strong linguistic base. In addition to the variety of media utilized in elementary French, a significant number of more authentic cultural artifacts (literary texts, newspaper articles, films) will be introduced throughout the semester. Classes meet three (3) hours per week and an additional hour per week of laboratory work is required. *Prerequisites: CFLF 102 or equivalent for Intermediate French 201; CFLF 201 or equivalent for Intermediate French 202.*

CFLF 307/308: Business French.**3 credits each**

This course is an introduction to business in France and in Francophone countries. It covers business vocabulary, government requirements for business, letter writing, transportation, insurance, accounting, and labor relations. It also seeks to expand on students' communicative and productive skills acquired in the Intermediate French language sequence. Conducted entirely in French. *Prerequisite: CFLF 202 or Instructor's approval.*

CFLF 311/312: Survey of French Literature.**3 credits**

This course will be a cursory treatment of the essential works of French literature in prose, poetry, theatre and philosophical thought. Particular emphasis will be placed upon the literary movements from the Middle Ages to the present, which had a social as well as political impact on France and the rest of the world. *Prerequisite: CFLF 202.*

CFLF 331: French Pronunciation and Phonetics. **3 credits**

This course treats the proper pronunciation of French and the perfecting of a near-native French diction through the aid of phonetic transcription and authentic French videos and audio texts. *Prerequisite: CFLF 202.*

CFLF 332: French Conversation. **3 credits**

This course deals with improving listening comprehension and oral expression by forcing the student to enhance his/her vocabulary through copious readings, viewing videos and discussing cultural topics. Emphasis will also be placed on writing. *Prerequisite: CFLF 202.*

CFLF 341/342: Advanced French Grammar. **3 credits each**

This is a third-year course designed to enhance students' proficiency in spoken and written French and to examine the most difficult idiomatic and literary expressions of the language. Frequent written and oral exercises will include themes, translations, reports on assigned subjects and compositions. *Prerequisite: CFLF 202.*

CFLF 355/356: Intensive Reading in French Literature. **3 credits each**

This course teaches techniques in literary analysis of various genres of French literature. Works of the twentieth century will be of primary concern. Student is required to have a general mastery of the French language and culture. This course is recommended for students who plan to do graduate work in French. *Prerequisite: CFLF 341/342 or approval of instructor.*

CFLF 419: French Linguistics. **3 credits**

This is an introduction to the scientific study of language with focus on the analysis and description of language. Topics include language acquisition, writing systems, sound systems, meaning, and language change in society.

CFLF 431: Civilization of Francophone Africa. **3 credits**

This course treats the history of the French-speaking peoples of Africa from the colonial period until the present. It will explore the geographical, political and social issues facing black Africa, even through the transitory postcolonial period, in preparation for in-depth study of the literature and cultures. *Prerequisite: CFLF 332 or 341. (Recommended for majors and those students interested in studying abroad in Africa)*

CFLF 434: Afro-French Novel. **3 credits**

This course will trace the evolution of the African and Caribbean novel of French expression from its inception to the present. It will also treat other outside literary influences, such as the Harlem Renaissance, surrealism and the Negritude movement, which significantly impacted the development of this dynamic literary genre. *Prerequisite: CFLF 431 or approval of instructor. (Recommended for students interested in studying abroad in Francophone Africa)*

CFLF 440/441: Directed Study. **3 credits**

This course is designed to allow majors to do more in-depth study and investigation of special areas of interest or to improve their language proficiency. The student works under the close supervision of a professor who will prescribe a plan-of-action (which must be approved by the department chair in advance) to be followed. Student must be able to work independently on the Internet.

CFLF 447/448: French Civilization.**3 credits each**

This course treats the history of France from its origin to the present. It will delve into the social and political institutions and explore their impact on contemporary French society. It will also provide a cursory view of artistic—architectural, musical and literary—as well as philosophical movements throughout the ages.

CFLF 451: Composition and Translation.**3 credits**

This course treats advanced problems in grammar and syntax, written exercises, and free composition. Features instruction in writing different genres and modifying writing style to accommodate specific audiences, techniques for promoting cultural/global awareness. Includes instruction in stylistic features of writing that distinguish French from English. Conducted in French. *Prerequisite: CFLF 332 or 341.*

CFLF 452: Explication de Texte.**3 credits**

This is an in-depth course in literary analysis that aims to prepare students for close textual reading and writing. It treats detailed critical analysis of selected passages with references to biographical elements, sources of origins, literary meaning, authenticity, and aesthetic qualities. Students produce oral and written reports in French. Conducted in French. *Prerequisite: CFLF 341 or 355.*

CFLF 453: French Literature: 1800-1850.**3 credits**

Study of the origins, development, and triumph of the Romantic Movement in France via the analysis of literary, historical, and critical texts. We will look in particular at the literary theories and manifestos, which contributed to and influenced the literary production of this period, and the manner in which such texts reveal the interaction between artistic expression and socio-political reality. By looking at more contemporary versions of these revolutionary modes of expression – in popular as well as “high” art – we will try to assess the legacy of this important movement.

CFLF 454: French Prose: 1850-1900.**3 credits**

Study of the progressive dominance of the novel as a literary genre in the modern period. Special attention will be given to the influence of science – which begins to acquire unprecedented authority at this point in history – on literary production – in key works of the so-called “Realist” and “Naturalist” movements. Perhaps even more important, we will observe how the objectives and discourse of science come to define literary criticism—writing on writing. Students will be required to analyze not only a number of literary texts of the period, but the analyses of such texts: is there such a thing as objective value in art?

CFLF 480: Senior Conference in French.**3 credits**

This is a final-year directed independent study designed to explore and remedy specific areas of weakness of prospective graduates. Different assessment tools will be used to enhance the students’ content knowledge and productive skills in the target language to meet the University and ACTFL standards.

CFLF 484/485: Travel-Study Seminar.**3 credits each**

Travel and independent study in a foreign country under the guidance of responsible faculty members. Strongly recommended for majors and minors.

HISTORY COURSE DESCRIPTIONS

CHIS 201/202: U. S., Africa and the World I and II.

3 credits each

These courses investigate the interactions between various continental peoples of Africa, Asia, Europe, and the Americas. HIS 201 examines events, perspectives, experiences and ideologies up to 1500. HIS 202 continues the investigation to the present. These courses critically analyze the social, economic, political, and geographical theories that have shaped global society.

CHIS 211 and 212: History of the United States.

3 credits each

These courses cover the social, political, and economic development of American life with special emphasis on the development of American nationality. The first semester covers the period from 1492 to 1865; the second, the period from 1865 to the present.

CHIS 317: Civil War and Reconstruction.

3 credits

This course critically examines the economic, social, and political causes of the Civil War. It also relates the social changes growing out of the war and the Reconstruction period to present issues.

CHIS 319: African-American History to 1877.

3 credits

Critical analysis of the experiences of African-Americans from their African societies, enslavement and transportation to America, up to 1877. The course includes the development of North American racism, the experiences of slavery, sectionalism, the Civil War, and Reconstruction.

CHIS 320: African-American History Since 1877.

3 credits

Critical analysis of the experiences of African Americans from the Post-Reconstruction period to the present. Major topics include segregation, urban life, the Civil Rights Movement, and black contributions to American culture and society.

CHIS 350: History of Africa to 1800.

3 credits

An historical survey of precolonial African societies, from earliest times to 1800, emphasizing geography, sociocultural institutions, and politics.

CHIS 351: History of Africa Since 1800.

3 credits

An historical survey of Africa from the 19th century to the present with special emphasis on colonialism, growth of African nationalism, neo-colonialism, and contemporary issues of African nations amid globalization.

CHIS 355: United States in the Twentieth Century.

3 credits

An historical analysis of the growth of the United States as a world power in the twentieth century. It emphasizes economic, political, and social aspects of the American experience.

CHIS 360: American Social and Intellectual History.

3 credits

A study of the effect that ideas and intellectual currents have on social life in modern America. Evaluation of thinkers of America's recent past and their impact on the daily life of the country.

CHIS 403: Historical Methods.

3 credits

A study of the sources utilized by historians in their attempts to re-create the past. Research papers are required.

CHIS 404: Early Modern Europe, 1500-1815. **3 credits**
Analysis of factors that produced modern European civilization. Topics include the Renaissance, the Reformation, the scientific revolution, the Enlightenment, and the rise of nationalism.

CHIS 405: Modern Europe Since 1815. **3 credits**
A study of the social and political upheavals of the nineteenth century in Europe. Covers industrialization, nationalism, democracy, and the mass movements represented by socialism and fascism.

CHIS 422: History of Georgia. **3 credits**
A survey of the history of Georgia from colonial times to the present. Of particular significance to prospective teachers in elementary and secondary education.

CHIS 433: History of Urban America. **3 credits**
Examines the development of modern urban institutions, focusing on community growth and organization, delivery of goods and services, governmental structure, and public policy.

CHIS 450: The Jim Crow South. **3 credits**
An examination of racial segregation as practiced in the southern region of the United States from Reconstruction through the 1960s. Students will analyze historical readings and document oral accounts of African-Americans who experienced segregation.

CHIS 480/483: Independent Study. **3 credits each**
A program of reading, research, and writing in which students engage in a critical examination of one or more selected topics under the guidance of the instructor.

CHIS 490: Senior Seminar. **3 credits**
A required research and writing course for seniors in which students utilize primary sources and complete a major paper integrating the various historical themes and interpretations introduced in earlier courses.

CHIS 491: Special Topics in Contemporary History. **3 credits**
A study of the major forces and ideas as well as social, political and economic developments in contemporary history. Special thematic emphasis may vary from one semester to the next.

HUMANITIES COURSE DESCRIPTIONS

CHUM 228: Interdisciplinary Humanities I. **3 credits**
This course focuses on the diversity of cultural experiences primarily in the United States. The class uses readings from a variety of disciplines, from anthropology and sociology to literature, philosophy, religion, and art. Students will learn to think critically in this class through writing short papers and classroom discussion. This section concentrates on the issues of myth and the making of history, the natural and unnatural, identity, individual and community and religion and belief systems.

CHUM 230: Interdisciplinary Humanities II. **3 credits**
This course focuses on the diversity of cultural experiences primarily in the United States. The class uses readings from a variety of disciplines, from anthropology and sociology to literature, philosophy, religion, and art. Students will learn to think critically in this class through writing short

papers and classroom discussion. This section concentrates on the issues of education, work and economy, state and nationalism, social change, and pop culture.

MASS MEDIA ARTS CORE COURSE DESCRIPTIONS

CMMA 200: Basic News Writing and Reporting. 3 credits

A lecture and laboratory course which emphasizes writing various types of news stories for print and broadcast media. Prerequisites: English Composition I and English Composition II with a grade of “C” or better. Either semester.

CMMA 201: Survey of Media and Society. 3 credits

A comprehensive examination of the historic foundations and current status of the mass media. Emphasis will be placed on social and economic controls as well as the impact and influence of the mass media in today’s society. Prerequisites: English Composition I and English Composition II with grades of “C” or better. Either semester.

CMMA 203: Multimedia Writing, Reporting and Storytelling. 3 credits

This course introduces students to the basic characteristics of writing for print, radio, television, the Internet and film. Students examine requirements for various kinds of formats and scripts including commercials, short and long form narratives, talk shows, news stories, features, documentaries, and interactive media. Prerequisites: Basic News Writing and Reporting and Survey of Media and Society. Either semester.

CMMA 315: Mass Communication Research Methods. 3 credits

An introduction to quantitative and qualitative research methods and procedures used to study issues and problems in mass communication. This course covers sampling, research design, observation and measurement, statistics, data analysis, documentation/reporting formats, and execution strategies/tools. Prerequisites: Survey of Media and Society; Basic News Writing and Reporting; Permission of Instructor. Either semester.

CMMA 422: Philosophy and Ethics of Mass Communications. 3 credits

This course is based on the philosophical assumptions embodied in mass communications systems around the world. A lecture-discussion method is used. Prerequisites: Survey of Media and Society and Multimedia Writing, Reporting and Storytelling. Either semester.

CMMA 425: Communication Law. 3 credits

Study of various laws affecting American media. Concepts of freedom of speech and press, specific laws and alternative interpretations of those laws, federal regulatory agencies’ rights in news and advertising, libel, slander, copyrights, and invasion of privacy. Prerequisites: Survey of Media and Society and Multimedia Writing, Reporting and Storytelling. Either semester.

CMMA 490: Media Seminar. 3 credits

This course for graduating seniors provides students with an opportunity to apply theories and techniques to practical experiences in their areas of concentration. It is a research seminar. Seniors must successfully complete and approved final project that will be presented both orally and in writing to be judged by a jury of faculty in the department. In consultation with their advisers, students may select a topic for their research during the first semester. Research projects should reflect the career of academic interests of the students. Prerequisite: Graduating senior. Either semester.

JOURNALISM COURSE DESCRIPTIONS

CMMA 301: News Editing I.

3 credits

A practical course that uses simulated news copy and wire service stories to give students training in theory and practice of copy editing, headline writing, page design, and picture sizing and cropping. This class is designed to develop students' critical-thinking, and professional skills that are basic to an editor's job: grammar, spelling, punctuation, and style; content, editing, ethics; taste and libel; inflammatory language; editing with speed and accuracy, etc. Prerequisite: Multimedia Writing, Reporting and Storytelling. First semester.

CMMA 302: News Editing II.

3 credits

This laboratory course combines theory with hands-on production activities. Students are required to produce a prototype of a newspaper or magazine. Students will follow through with skills refined in CMMA 301, News Editing I, but acquiring a solid grounding and learning layout and design and digital photography. The class will move at a faster pace. Prerequisites: News Editing I. Second semester.

CMMA 313: Photojournalism.

3 credits

This course emphasizes communicative effects of pictures and proper selection and display of photographs. Students must supply their own 35mm cameras. Prerequisites: Survey of Media and Society and Multimedia Writing, Reporting and Storytelling. Either semester.

CMMA 320: History of Journalism.

3 credits

A concentrated lecture-discussion course in an historical context. The growth of American journalism is traced, including the contributions of African-Americans, Hispanics, Native Americans and Asians. Students identify major personalities and examine socioeconomic factors affecting journalism in the United States. Prerequisites: Survey of Media and Society and Multimedia Writing, Reporting and Storytelling. Either semester.

CMMA 325: Editorial and Critical Writing.

3 credits

A lecture-discussion and writing course which concentrates on the writing of editorials, book and film reviews, and columns. The critical and analytical approaches of selected major national and international newspapers are examined. Prerequisites: News Editing I; Survey of Media and Society. Either semester.

CMMA 331: International Journalism.

3 credits

This course studies the foreign media and provides instruction in techniques and skills needed to write for foreign and/or international organizations. Prerequisites: Survey of Media and Society and Multimedia Writing, Reporting and Storytelling. Either semester.

CMMA 350: Interpretative Reporting.

3 credits

An advanced writing course which focuses on developing the student's analytical skills and news writing skills for coverage of such governmental bodies as the schools, courts, and city, county, and state agencies. Students will be assigned to cover actual news events and be given instruction in how to analyze the cause of news events through interviewing and the persistent searching of records. Students will be required to publish articles in an approved periodical. Prerequisites: Survey of Media and Society; News Editing I. Second semester.

CMMA 352: Feature Writing.

3 credits

A lecture and laboratory course which focuses on developing skills in researching, organizing, and writing all types of feature stories for newspapers and magazines. Students are required to publish

articles in an approved periodical. Prerequisites: News Editing I; Survey of Media and Society. First semester.

CMMA 361: Newspaper Production. 3 credits

This course offers a thorough understanding of principles and skills involved in producing a newspaper or magazine. It combines theory with production activities. Students will be taught the organization of a newspaper and its functions as well as headline writing, copy editing, and layout and design. Prerequisites: Survey of Media and Society; News Editing I. First semester.

CMMA 486: Mass Media Arts Co-operative. 3 credits

Juniors and seniors are allowed to work full time off-campus (with University supervision) in journalism, public relations, radio, television, or film for credit. Prerequisite: Permission of Department Chairperson. Either semester.

CMMA 487: Media Arts Studies. 3 credits

Special course which allows students to focus and study current media themes, applications, trends, etc. Course content varies. Prerequisite: Permission of Department Chairperson. Either semester.

CMMA-J 488: Directed Study. 3 credits

A project designed by the student and a journalism faculty member who works with the student to meet specific and individual needs. Directed study requires extensive reading and written work from the student. Prerequisites: Junior or senior status and permission of Instructor. Either semester.

CMMA-J 489: Internship. 3 credits

Part-time placement in professional media facilities in Atlanta and other cities. Emphasis on learning overall business structure and developing skills for entry-level decision-making positions. Prerequisites: Senior status in major and permission of Instructor. Either semester.

PUBLIC RELATIONS COURSE DESCRIPTIONS

CMMA 307: PR Principles, Practices and Theory. 3 credits

An introductory concept course that surveys the principles, theories, strategies, techniques and practices of the public relations profession. Prerequisites: Multimedia Writing, Reporting and Storytelling and Survey of Media and Society; Permission of Instructor . Either semester.

CMMA 310: Public Opinion and Propaganda. 3 credits

This course is an introduction to the nature of public opinion and propaganda from an historical perspective that spans cultures and contemporary world societies. Emphasis is placed on the use and abuse of persuasive communication techniques and the economic, political, social, and cultural interrelationships which determine the role of mass media in human affairs. Prerequisite: Multimedia Writing, Reporting and Storytelling and Survey of Media and Society. Either semester.

CMMA 318: PR Media Development and Copy Editing. 3 credits

Covers public relations techniques for the dissemination of messages to multiple groups across internal and external organizational print, electronic, and audiovisual media. This course focuses on practical skills for editing copy and implementing media strategies. Prerequisite: Multimedia Writing, Reporting and Storytelling and PR Principles, Practices and Theory. Either semester.

CMMA 338: Media Advertising and Sales.**3 credits**

This introductory course surveys the basic processes, strategies, and techniques for producing, selling, and evaluating advertising. Emphasis is placed on consumer and marketing research, media advertising, campaigns, marketing plans, media ratings, audience analysis, and media buying plans. Prerequisites: Multimedia Writing, Reporting and Storytelling and Survey of Media and Society; Permission of Instructor. First semester.

CMMA 418: PR Research and Evaluation.**3 credits**

This course is designed to help students develop the essential research and analytical skills for the planning, execution and evaluation of action programs that address communication problems and issues faced by organizations and institutions. Prerequisites: Multimedia Writing, Reporting and Storytelling, PR Principles, Practices and Theory; Mass Communication Research. Either semester.

CMMA 462: Media Arts and Design.**3 credits**

This course offers students an opportunity to develop basic desk-top publishing skills in page design, layout, and other graphic elements necessary for public relations and advertising campaigns. Prerequisite: PR Media Development and Copy Editing. Second semester.

CMMA 485: Public Relations Campaigns.**3 credits**

In this seminar, students analyze contemporary issues and problems faced by public relations professionals. Students develop special public relations campaigns for social “cause” organizations, and acquire entry-level professional skills in public relations through practical experience. Prerequisites: PR Media Development and Copy Editing; PR Research and Evaluation. Either semester.

CMMA 488: Directed Study.**3 credits**

A project designed by the student and a public relations faculty member who agrees to work with the student to meet specific and individual needs. Directed study requires extensive reading and written work from the student. Prerequisites: Senior status in major and permission of instructor. Either semester.

CMMA 489: Internship.**3 credits**

Part-time placement in professional media facilities in Atlanta and other cities. Emphasis is on learning overall business structure and developing skills for entry-level decision-making positions. Prerequisites: Senior status in major and permission of instructor. Either semester.

RADIO-TELEVISION-FILM COURSE DESCRIPTIONS**CMMA 305: African-American Images in the Media.****3 credits**

This course will explore the characterization and interpretation of the image of African-Americans in film and television and attempts to qualify their value as a catalyst for social, political, and cultural change. This course will also assess the dynamics of basic thought propagated through negative imagery in films, television, and other media. Prerequisite: Multimedia Writing, Reporting and Storytelling and Survey of Media and Society. First semester.

CMMA 306: History and Criticism of Film.**3 credits**

Historic and aesthetic contributions of famous films, filmmakers and film critics examined. Particular subjects include the psychological effects of editing techniques and Russian and French cinema. There is a special emphasis on African- American and Third-World films. Prerequisite: Multimedia Writing, Reporting and Storytelling and Survey of Media and Society. First semester.

CMMA 308: Introduction to Radio-Television-Film.

3 credits

This course will familiarize students with the organizations, equipment and terminologies typically utilized in radio, television, and film. Operational procedures, FCC regulations, and styles of writing applicable to broadcasting and film are introduced. Prerequisites: Multimedia Writing, Reporting and Storytelling and Survey of Media and Society. Either semester.

CMMA 327: History and Development of Radio and Television.

3 credits

This course traces the growth and early development of radio and television from the earliest technological innovations to modern day. Lectures and discussions review how programming, social trends, and technology interplay to impact society. Prerequisite: Introduction to Radio-Television-Film. Either semester.

CMMA 334: Broadcast Journalism and Editing.

3 credits

This lecture-laboratory course is oriented to radio and television broadcasting. Emphasis is on gathering, analyzing, writing, editing and presenting news. Studio and on-location tapings are required. Prerequisite: Introduction to Radio-Television-Film. Second semester.

CMMA 348-R/TV/F: Fundamentals of Video/Radio/Film Production.

3 credits

Designed to introduce students to basic principles of effective studio and location production. The student will be taught operation of selected production equipment and how to make creative and aesthetic decisions regarding programming. Prerequisite: Introduction to Radio-Television-Film. Second semester.

CMMA 475: Radio Programming and Digital Design and

3 credits each

CMMA 476: Radio Programming and Production

Organization and operation of commercial and noncommercial radio stations inclusive of staffing, formats, promotion, and programming. The student receives training as a producer, performer and writer. Prerequisites: Broadcast Journalism and Editing and Fundamentals of Video/Radio/Film Production.. First and second semesters, senior year.

CMMA 477: Video Editing.

3 credits

This course is designed to prepare students for broadcast editing using linear and non-linear systems. Students will be introduced to standard editing procedures: transition and editing strategies; audio editing, narration, music and sound effects in producing effective TV programs and news. Prerequisites: Survey of Media and Society and Fundamentals of Video Production. First and second semesters, senior year.

CMMA 478: Video Production and Directing.

3 credits

This course provides hands-on experience in producing, directing, and editing. Students are required to utilize production skills by producing special projects and cable television productions. *Prerequisites:* Fundamentals of Video Production and Video Editing. First and second semesters, senior year.

CMMA 479 and 480: Cinematography I & II.

3 credits each

Beginning filmmaking courses with emphasis on use of basic motion picture cameras, editing techniques and script preparation. Cinematography II students utilize knowledge gained in Cinematography I. Special emphasis is placed on 16mm-film production with the completion of a short film as a course requirement. Prerequisites: History and Criticism of Film; Survey of Media and Society. First and second semesters, senior year.

CMMA 487: Media Arts Studies (Screenwriting I: Principles of Dramatic Writing).

3 credits

Screenwriting I will provide a basic understanding of story structure and dramatic paradigms essential in the production of film and television formats. Students will examine the elements of screenwriting for both film and television with an emphasis on character development, plot construction, scene development, narrative structure and dialogue. Prerequisites: Permission of Department Chairperson and Instructor. Junior or senior year. First semester.

CMMA-R/TV/F 488: Directed Study.

3 credits

A project designed by the student and a radio-television-film faculty member who agrees to work with the student to meet specific and individual needs. Directed study requires extensive reading and written work from the student. Prerequisites: Senior status in major and permission from the Instructor. Either semester.

CMMA 488: Directed Study (Screenwriting II: Advanced Screenwriting).

3 credits

The advanced screenwriting course is a seminar in which each student presents work, no matter what stage. Some will be starting a new screenplay based on an existing treatment, while others will be continuing or rewriting a first draft screenplay. This course emphasizes tightening plot and structure, deepening characterization, and writing dialogue. Ultimately, this course will support the student's refining and polishing of a 90-120 page feature-length screenplay. Permission of Instructor. Junior or senior year. Second semester.

CMMA-R 489: Internship.

1, 2 or 3 credits

Part-time placement in professional media facilities in Atlanta and other cities. Emphasis is on learning overall business structure and developing skills for entry-level decision-making positions. Prerequisites: Senior status in major and permission of Instructor. Either semester.

MATHEMATICS COURSE DESCRIPTIONS

CMAT 103: Algebra I.

3 credits

Basic concepts of arithmetic and algebra, the real numbers, first degree equations of one variable, inequalities, exponents, polynomials, factoring, algebraic fractions, coordinate geometry and linear systems, rational exponents and radicals, quadratic equations.

CMAT 104: Algebra II.

3 credits

Linear models, polynomial and rational models, exponential and logarithmic models, mathematics of finance, systems of linear equations and matrices, linear programming.

CMAT 105: Pre-Calculus I.

3 credits

Fundamentals of algebra for study in analytic geometry and calculus. Concepts include the real numbers system, basic algebra, equations and inequalities of first and second degree, and functions and their graphs. *Prerequisites: Department approval and at least two (2) years of high school mathematics, including algebra, placement based on entrance exams, or CMAT 103.*

CMAT 106: Pre-Calculus II.

3 credits

Fundamentals of trigonometry for study in analytic geometry and calculus. Concepts include trigonometry, systems of equations and inequalities, conic sections, and sequences and series. *Prerequisite: CMAT 105, or placement based on entrance exams.*

CMAT 108: Combined Pre-Calculus.

6 credits

This course emphasizes problem solving in mathematics. It will focus on concepts necessary to solve a variety of problems in algebra and trigonometry and enable the student to undertake a successful study of calculus, statistics or other intermediate level courses in mathematics.

CMAT 111: Calculus I.

4 credits

Real numbers, functions, limits, derivatives, definite integrals and the applications of these topics. *Prerequisite: Proper placement score or CMAT 106 or CMAT 108.*

CMAT 112: Calculus II.

4 credits

Topics covered include techniques of integration with applications to volume and surface area of solids of revolution and centers of mass, parametric equations, polar coordinates, improper integrals, and infinite series. *Prerequisite: CMAT 111.*

CMAT 209: Calculus and Analytical Geometry I.

3 credits

Integrated course in analytic geometry and calculus designed for students in economics, business administration, and biology. The course provides students with the skills needed to study mathematics of finance, limits, functions, and differentiation. *Prerequisites: CMAT 105, or departmental approval. This course is intended for Business majors.*

CMAT 210: Calculus and Analytical Geometry II.

3 credits

Differentiation and integration of transcendental functions, definite integral, indefinite integral, area under curves, area between two curves, and differentiation of multivariable functions. *Prerequisite: CMAT 209.*

CMAT 211: Calculus III.

4 credits

Topics include multidimensional calculus, namely partial geometry, multiple integrals, vector calculus and their applications. *Prerequisite: CMAT 112.*

CMAT 212: Differential Equations. **3 credits**

Definition and classification of differential equations. Techniques for first order nonlinear equations, linear equations with constant and variable coefficients, methods of undetermined coefficients, variation of parameters, Cauchy-Euler equations, and other methods for solving nonlinear equations, series solutions. *Prerequisite: CMAT 112.*

CMAT 214: Linear Algebra. **3 credits**

Introduction to linear algebra. Topics include vectors, matrices, linear equations, determinants, vector spaces, linear transformations, and vector spaces with an inner product. *Prerequisites: CMAT 112, or equivalent.*

CMAT 307: Structure of Elementary Mathematics I. **3 credits**

An introduction to problem solving, whole number computation, elementary set theory, numeration systems, algebraic thinking and functions, proof techniques, and number theory. *Prerequisite: CMAT 105.*

CMAT 308: Geometry for Pre-Secondary Teachers. **3 credits**

Cultural aspects of geometry, basic Euclidean Theorems, congruence and similarity, constructions, mensuration, symmetry, tiling, graph theory, proof techniques, and elements of Cartesian Geometry. *Prerequisites: CMAT 105 or CMAT 307.*

CMAT 309: Structure of Elementary Mathematics II. **3 credits**

The study of the real number system and its basic properties, elementary probability and statistics; emphasis will be placed on application, analysis, and evaluative aspects of teaching mathematics to Elementary and middle grade students. *Prerequisites: CMAT 105 and 106 or CMAT 111 or CMAT 307.*

CMAT 310: Geometry for Secondary School Teachers. **3 credits**

Study of the field of secondary school mathematics from both quantitative and qualitative viewpoints. Students learn mathematical concepts and teaching strategies. *Prerequisites: CMAT 105 and 106 or CMAT 111 and 112.*

CMAT 311: Mathematical Logic. **3 credits**

Study of sets and equivalence classes, Boolean algebra, the role of axiomatic in the structure of mathematics, basic principles of logic involving rules of modus ponens, reduction absurdum, propositional calculus, first order logic, and the nature of mathematical proof. *Prerequisite: MAT 112 or equivalent.*

CMAT 321 and 322: Mathematical Probability and Statistics I & II. **3 credits each**

Introductory course in probability; distribution functions and moment generating functions; correlation and regression; development and applications of the binomial, normal, Student's t, chi square and F distributions; Poisson's and Cauchy's distributions. *Prerequisite: CMAT 112, or permission of the instructor.*

CMAT 325 and 326: Modern Algebra I and II. **3 credits each**

Study of the number system, groups, rings, fields, matrices and linear transformations, linear algebra, and other algebraic systems, vector spaces, systems of equations, reducible polynomials, and algebraic and transcendental numbers. *Prerequisites: MAT 111 and 112.*

CMAT 421 and 422: Advanced Calculus I and II. **3 credits each**

Sets, relations and functions, mathematical induction, equivalent and countable sets, real numbers, order and completeness, sequences, series, limits of functions, and continuity, the Riemann integral, improper integral. Metric spaces, completeness, compactness, sequences and series of functions, uniform continuity and convergence, integral of sequences and series of functions. *Prerequisites: CMAT 211 and 214.*

CMAT 423 and 424: Introduction to Complex Variables I and II. **3 credits each**

Introductory course in complex variables, including the complex numbers, analytic functions, elementary functions, complex integrals, series, residues, poles, and mapping by elementary functions. *Prerequisites: CMAT 211 and CMAT 214.*

CMAT 427 and 428: Introduction to Topology I and II. **3 credits each**

Limits and metric spaces, continuous functions on metric spaces and general topological spaces, completeness, product spaces. *Prerequisites: CMAT 211 and CMAT 214.*

CMAT 440: Numerical Analysis. **3 credits**

Introductory study of numerical algorithms for the solution of algebraic, differential and partial differential equations, error analysis. *Prerequisites: CMAT 211, CMAT 212 and CMAT 214.*

CMAT 443: Introduction to Operation Research. **3 credits**

Linear programming, duality, sensitivity analysis, integer programming and applications to various decision and management problems. *Prerequisites: CMAT 211, CMAT 212 and CMAT 214.*

CMAT 461: Introduction to the Theory of Numbers. **3 credits**

Diophantine equations, congruences, theory of residues and indices, polynomials and partitions. The course also includes study of some classical problems in number theory. *Prerequisite: CMAT 212.*

CMAT 471: Discrete Mathematical Structures. **3 credits**

Introduction to finite mathematical structures and their application to computational and computer sciences. *Prerequisite: CMAT 112.*

CMAT 475 and 476: Seminar I and II. **3 credits**

One-year course of selected topics, papers, projects, and research in mathematics. *Prerequisite: Approval of the department Chair.*

CMAT 480: Independent Study. **1 – 3 credits**

Prerequisite: Consent of instructor.

CMAT 483: Mathematics in Community Service. **3 credits**

This course is an expansion of the Departmental tutorial program offered especially to those students of Clark Atlanta University studying mathematics in the services courses CMAT 103, 104, 105 and 106. This expansion is a community course in service to local school students.

CMAT 497: Internship. **3 credits**

Career-related work experiences. Although Internship does not carry credit toward the degree, majors are encouraged to take it. *Prerequisite: Approval of the department chair.*

MUSIC COURSE DESCRIPTIONS

CMUS 101: Fundamentals of Music.

2 credits

Preparatory course in the rudiments of music theory, open to nonmajors, but required of music majors and minors who fail to pass the diagnostic examination in Theory. The course familiarizes students with scales, key signatures, notation symbols, rhythm, meter, intervals and music terminology. This course does not count toward music degree credit nor does it satisfy the General Education Core Requirement.

CMUS 105 and 106: Sight Singing and Ear Training.

3 credits each

Practical study in sight reading and in melodic, harmonic, and rhythmic dictation. This course must be taken at the same time as Music Theory I (CMUS 201/202). *Prerequisite: Passing score on the Music Theory diagnostic exam or completion of Fundamentals of Music course (CMUS 101) with a grade of "C" or better.*

CMUS 107 and 108 – 407 and 408: Applied Music.

1 credit each

Weekly private instruction for music majors and minors in the following areas of study: voice; piano; wood wind instruments; brass instruments; string instruments; percussive instruments; and organ. Voice majors or minors with limited previous voice study may be required to begin with Voice Class (CMUS 107C). *Nonmajors must obtain permission from applied instructor and will be considered on the basis of specific University ensemble needs and/or space availability.*

CMUS 107C: Voice Class.

1 credit

Basic principles and methods of vocal performance focusing on tone production, diction, breathing and vocal repertoire. May be required in the first semester of entry into the music program for voice performance majors or minors who have limited vocal study and/or vocal skills. *Open to nonmajors by approval of the instructor.*

CMUS 108C: Voice Class.

1 credit

Basic principles and methods of vocal studies for voice majors or minors who have limited vocal experience and/or vocal skills. *Open to nonmajors by approval of the instructor.*

CMUS 109: Instrumental Class.

1 credit each

Classes that teach music instrument methodologies for students to perform functionally on string, woodwind, brass and percussion instruments.

Section 1: String Class.

1 credit

The study of basic pedagogical principles and repertoire for teaching string instruments to students.

Section 2: Woodwind Class.

1 credit

The study of basic pedagogical principles and repertoire for teaching wood wind instruments to woodwind students.

Section 3: Brass Class.

1 credit

The study of basic pedagogical principles and repertoire for teaching trumpet, trombone, French horn and tuba to brass students.

Section 4: Percussion Class.

1 credit

The study of basic pedagogical principles for teaching rhythm drills, rhythmic dictation and technical proficiency and repertoire in the use of percussive instruments.

CMUS 110 – 410: Atlanta University Symphony Orchestra. 1 credit

A consortium orchestra of students from the Atlanta University Center. Major orchestral works performed several times during the school year. Open to all CAU students by audition and permission of the director. Required of string majors.

CMUS 111 – 411: University Choir/Philharmonic Society. 1 credit

Choral ensembles that perform a range of various musical styles and major choral works. Open to all CAU students by audition and permission of the director. Performs music throughout the school year: seasonal concerts, convocations, baccalaureate, commencement and other on- and off-campus functions. Required of voice majors.

CMUS 112 – 412: University Bands. 1 credit

Marching and concert bands that perform wind ensemble music from a range of standard band repertoire. Open to all CAU students by audition and permission of the director. The bands provide music throughout the school year at football games, basketball games, seasonal concerts, convocations, approved parades, commencement and other on- and off-campus functions.

CMUS 113 – 413: Jazz Orchestra. 1 credit

Performing jazz ensemble that performs a range of jazz repertoire from the 1920s to the present. Emphasizes instruction and performance in improvisational style. *Open to all CAU students by audition and permission of the director.*

CMUS 114A and 114B – 414A and 414B: Performance Seminar. 1 credit each

Focuses on the development of complete musicianship for the performer. Topics include but are not limited to public performance – both solo and chamber – technique and musicianship, performers and discographies, and career development. Required 8 semesters for majors. **Section 1 - Voice; Section 2 – Piano; Section 3 – Brass; Section 4 – Woodwind; Section 5 – Strings; Section 6 – Percussion; Section 7 – Voice.**

CMUS 115A and 115B – 415A and 415B: Music Seminar. 0 credit

Provides opportunities for formal and informal discussions on topics and problems in theory, musicology, music literature, music careers. Faculty, guest artists/consultants, and students make presentations. Enrollment and attendance required 8 semesters for music majors, 2 semesters for music minors.

CMUS 116-416: Hand Bell Ensemble. 1 credit

A small ensemble that performs a broad repertoire of hand bell literature. Open by audition to students (music majors/minors or nonmajors). Reading treble or bass clef required. Opportunities for concert performance throughout the year.

CMUS 117A and 117B, 217A and 217B: Piano Class. 1 credit each

A four-semester course sequence that provides functional keyboard skills for the nonpiano music major/minor for satisfying the Piano Proficiency Exam. The examination may be taken in any semester during which the student feels prepared to pass the proficiency requirements. Open to nonmajors by approval of the instructor. Prerequisite: Passing score on Music Theory Diagnostic Exam or Fundamentals of Music course (CMUS 101) with a grade of “C” or better.

CMUS 119: World Music. 3 credits

The study of representative music of world cultures. Course examines musical style, aesthetic viewpoints, and the function that music fulfills in diverse societies. Students will encounter new

musical expressions, and the philosophies and world views that accompany the music. Satisfies the Humanities Core requirement.

CMUS 120: Music Appreciation. 3 credits

Provides experiences in critical listening skills and introduces musical elements, forms, and Western historical periods from a multicultural perspective, music of the African Diaspora and ethnic world cultures. Introduces the major musical eras and composers with an emphasis on aural perception of works.

CMUS 201 and 202: Music Theory I. 3 credits each

Initial two of a four-semester course sequence that involves theoretical study in the harmonic, melodic and rhythmic materials of the common practice period. Music technology is infused throughout the course. *Prerequisite: Passing score on the Music Theory Diagnostic Exam or completion of Fundamentals of Music course (CMUS 101) with a grade of "C" or better.*

CMUS 204: Basic Conducting. 2 credits

Fundamentals of conducting, baton techniques, musical interpretation, and score preparation for instrumental and choral ensembles. Techniques are studied in a practical laboratory setting.

CMUS 205 and 206: Advanced Sight Singing and Ear Training. 1 credit each

Practical study in melodic, harmonic, rhythmic dictation and a continuation of functional application in reading music at sight. *Prerequisite: MUS 106 with a grade of "C" or better.*

CMUS 216: Introduction to Music Literature. 3 credits

Introduction to composers and their works from the Baroque era to the present. Features significant musical compositions and their influences on Western civilization.

CMUS 218A: Music Technology I. 1 credit

An introduction to computers, electronic keyboards and their uses. Basic categories of music software and their uses will be explored in a hands-on approach.

CMUS 218B: Music Technology II. 1 credit

More advanced concepts related to electronic keyboards, music software, and their uses in the music industry. Designed for the Composition Concentration major. *Prerequisites: A grade of "C" or better in CMUS 218A.*

CMUS 232: Survey of Music Industry. 3 credits

An overview of the business and technical side of the music entertainment industry. Features guest lecturers from the music industry world. Open to nonmusic majors as an elective.

CMUS 301 and 302: Music Theory II. 3 credits each

The third and fourth courses of a two-year Music Theory sequence. Focuses on advanced theoretical concepts, continuing developments of the common practice era, chromatic harmony, 20th-century practices, and style analysis. Music technology is infused throughout the course. *Prerequisite: CMUS 202 or permission of the instructor based on previous cognate studies.*

CMUS 303: Counterpoint. 3 credits

Study of contrapuntal works from the 17th and 18th centuries, primarily in the style of J. S. Bach. Contrapuntal devices after Bach's era are also included. *Prerequisite: grade of "C" or better in CMUS 301 and 302.*

CMUS 304: Form and Analysis. **3 credits**
Analysis of small and large musical forms of the Baroque, Classical, Romantic and Twentieth-century periods. *Prerequisite: grade of "C" or better in CMUS 301 and 302.*

CMUS 305A: Jazz Theory and Improvisation I. **3 credits**
Theoretical aspects of jazz – including harmonic and formal characteristics – and their application in the art of improvisation. Focusing on analysis, aural recognition, transposition, chord substitution, altered chords, scales, and modes.

CMUS 305B: Jazz Theory and Improvisation II. **3 credits**
A continuation of CMUS 305A, featuring more advanced chord, scale, mode, form, composition and improvisational study and techniques. *Prerequisite: a grade of 'C' or better in CMUS 305A.*

CMUS 308R: Junior Recital. **1 credit**
Junior Recitals are presented by music majors who must satisfy curriculum requirements for a performance concentration. Appropriate repertoire for the instrument or voice is required; recital must be no less than 30 minutes in length; and must be approved by the department faculty in a prerecital hearing. Minors and other applied students may present junior recitals upon the approval of their instructors.

CMUS 316 and 317: Music History and Literature I & II. **3 credits each**
Survey of Western art music from the Middle Ages to the present. Emphasis on major style periods, composers, significant music literature, and multiple listening experiences with analytical approaches. *Prerequisites: CMUS 203, 204, 205, and 206.*

CMUS 318: Jazz History. **3 credits**
Exploration of jazz idioms from African antecedents through African-American contributions, past and present. Stylistic contributions of many jazz musicians are studied. Open to nonmajors with the consent of the instructor.

CMUS 320: African-American Music. **3 credits**
Survey of the musical contributions of African Americans from their African roots to modern-day America. Includes the sociological and historical factors that impact the music and the musicians. Open to nonmajors as an elective.

CMUS 321: Secondary Music Methods and Practicum. **3 credits**
Principles, philosophies, national and state standards of music education for the middle and high school learner, including special needs and exceptional students. Emphasis on classroom management, effective teaching techniques, current methodologies, and appropriate literature and materials for secondary general music. Includes the use of technology in the classroom and multicultural materials.

CMUS 322: Methods and Materials of Teaching Music. **3 credits**
Designed to develop musicianship skills and teaching techniques needed by classroom teachers to direct music activities effectively in the elementary classroom. Music fundamentals, classroom instruments, and teaching materials are introduced through active participation in music activities (music major elective).

CMUS 323: Band Organization, Methods.**3 credits**

Practical approaches for the prospective band director to develop, organize and manage the total school instrumental program at all levels. Emphasis on rehearsal methods, marching and concert band techniques, classroom management, appropriate band literature for all levels, and festival preparation and repertoire.

CMUS 324: Choral Organization, Methods.**3 credits**

Techniques for developing, organizing and managing the school choral program at all levels. Emphasis on choral pedagogy and style, small and large ensembles, tone production, appropriate choral repertoire for all levels, classroom management, rehearsal methods and choral festival preparation.

CMUS 325: Jazz Orchestra Organization and Methods.**2 credits**

Practical approaches for developing and managing a school jazz orchestra program. Includes rehearsal techniques, jazz styles, appropriate repertoire, and programming.

CMUS 327: Music Business Seminar.**1 credit**

Includes discussions on the legal, practical and procedural problems encountered in the music business. Includes discussions on copyright; performance and mechanical licenses; and performing rights organizations. Guest speakers and field excursions included.

CMUS 330: Piano Repertoire.**3 credits**

This course is a survey of the standard repertoire for the piano from the Baroque period to the present. Scheduled calendar: Fall Semester, even years only (2008, 2010, 2012, etc.).

CMUS 331: Piano Music from the African Diaspora.**3 credits**

This course is a survey of piano repertoire by composers from the African Diaspora from the late 19th century to the present. Scheduled calendar: Spring Semester, odd years only (2009, 2011, 2013, etc.).

CMUS 340: Vocal Diction I.**1 credit**

This course is intended for those students with a concentration in vocal studies. Areas of study include English and Italian lyric diction and literature via the International Phonetic Alphabet (IPA) System. Must be taken concurrently with applied voice instruction.

CMUS 342: Vocal Diction II.**1 credit**

This course is intended for those students with a concentration in vocal studies. Areas of study include German and French lyric diction and literature via the International Phonetic Alphabet (IPA) System. Must be taken concurrently with applied voice instruction. *Prerequisites: Vocal Diction I with a minimum grade of "C" or better.*

CMUS 344: Opera Workshop I.**2 credits**

This course presents an overview of opera performance from the various historical periods. Areas of study include solo and ensemble singing from operatic and musical theater literature, stage management, set design, movement, prop building, and lighting.

CMUS 345: Opera Workshop II.**2 credits**

This course is a continuation of Opera Workshop I with more advanced repertoire and dramatic interpretation added to the sequence. *Prerequisite CMUS 344.*

CMUS 351: Songwriting, Arranging and Recording. **3 credits**

Course designed for students with commercial composition concentration. It combines songwriting in an analytical workshop atmosphere with the rudiments of multitrack, hard-drive recording using ProTools (laboratory). Students will be required to produce several projects during the course of the semester. *Prerequisite: a grade of "C" or better in MUS351. Scheduled: Spring semester.*

CMUS 370: Introduction to Church Music. **2 credit**

Course is an overview of church music from biblical era to contemporary era. Music traditions of psalmody, hymnody, anthems, spirituals, gospel music, contemporary Christian and praise are studied. Scheduled calendar: Fall Semester, even years only (2008, 2010, 2012, etc).

CMUS 372: Hymnody. **3 credits**

A study of the history of hymnody, composers, tunes and textual settings. The course also includes a detailed study of common hymnals and how the hymnal is used in worship. Scheduled calendar: Spring Semester, odd years only (2009, 2011, 2013).

CMUS 402: Introduction to Composition. **1 credit**

Study of basic scoring, notation, and intermediate compositional techniques. Students are required to set up and copy selected manuscripts from various genres as a prerequisite to creating lead sheets and writing compositions for voice and piano, choral, solo piano, chamber groupings and orchestra.

CMUS 403: Orchestration and Arranging. **2 credits**

Focuses on the unique performance capabilities of the instruments of the orchestra including instrument ranges, transpositions and timbres. Study of practical scoring and arranging techniques for the orchestra, band, and choral ensembles.

CMUS 404/01: Choral Conducting and Literature. **2 credits**

Rehearsal, interpretative, conducting techniques, methods and literature for choral organizations at all levels: elementary through high school.

CMUS 404/02: Instrumental Conducting and Literature. **2 credits**

Rehearsal, interpretative, conducting techniques, methods and literature for instrumental organizations at all levels: elementary through high school.

CMUS 405: Jazz Composition and Arranging. **3 credits**

Methods of composing and arranging in a jazz medium with attention to the differing styles in instrumental and vocal combinations.

CMUS 406: Composition. **3 credits**

An analytical approach to the music of major composers. Class projects will include original compositions and improvisations by students utilizing techniques discovered in the compositional techniques of past and contemporary composers. Music technology is infused throughout the course.

CMUS 408R: Senior Recital. **1 credit**

The capstone public recital for the senior music major is required in partial fulfillment for the music degree. Recital will consist of diverse repertoire, representing the breadth of literature for the instrument or voice, and will be at least 50 minutes in length. Recital must be approved by the department faculty in a prerecital hearing.

CMUS 417: Senior Project.**1 credit**

A specialized project or research paper required in lieu of a Senior Recital. *Prerequisite: recommendation by applied teacher with approval by department chair.*

CMUS 430: Piano Pedagogy I.**3 credits**

This course is an introduction to the strategies and procedures for successful piano teaching, with emphases on teaching philosophy, pedagogical resources, basic technique and musicianship, lesson plans, and observation of piano teaching. Scheduled calendar: Fall Semester, odd years on (2009, 2011, 2013, etc.).

CMUS 431 Piano Pedagogy II.**3 credits**

This course is a continuation of strategies and pedagogical procedures for successful piano teaching, with emphases on methods and materials, curriculum design, the intermediate student, observation of piano teaching, and business procedures for running a studio.

CMUS 440: Vocal Pedagogy.**3 credits**

This course is intended for vocal music majors and minors who wish to enhance their understanding of the science of vocal technique. Students will learn how the vocal mechanism works. Attention will be given to the following techniques: formants, breath management, resonation, registration, vowel formation, acoustics, the aesthetics of vocal timbre, and healthy singing.

CMUS 442: Vocal Literature.**3 credits**

This course presents an overview of music for solo voice. Areas of study include English, French, Italian, and German literature from the major musical eras, including art songs, French melodie, and German Lieder.

CMUS450: Recording Studio Internship.**3 credits**

An internship for commercial composition students in an active recording studio, submitting regular, brief written reflections to the supervising instructor about recording equipment, techniques, and procedures used. *Prerequisite: successful completion of MUS351 with a grade of "C" or better.* Scheduled: Fall semester.

CMUS 451: Senior Composition Project.**3 credits**

This "capstone" course will culminate in a senior composition project, both a CD recording and a live performance that showcases music in a variety of media in different styles composed by the student. *Prerequisite: successful completion of MUS451 with a grade of "C" or better.*

CMUS 470: Music in the African-American Church.**3 credits**

The study of literature and performance practices found in the worship experience of African-American Churches. Fall Semester, odd years only (2007, 2009, 2011, 2013, etc.).

CMUS 472: Church Music Methods.**2 credits**

A study of church music organization and planning, program development, performance techniques and rehearsal management skills required of church musicians.

CMUS 472C: Church Music Methods Internship.**3 credits**

Internship for music majors with a concentration in Church Music. Internship opportunity is provided for student to function in a supervised music ministry environment. *Corequisite CMUS 472.*

CMUS 480: Independent Study.**0-6 credits**

Directed study in specific subject area, a research project or a combination of the two. Designed to meet the specific and individual course needs of students in the senior year. Must be implemented in conjunction with a faculty member who oversees the agreed-upon study. *Prerequisite: approval of department chair.*

PHILOSOPHY COURSE DESCRIPTIONS**CPHI 105: Critical Thinking.****3 credits**

Development of intellectual skills for all areas of study. Focuses on organization of ideas, identification of common errors in reasoning, and critical analysis of editorials, speeches and articles.

CPHI 221: Introduction to Philosophy.**3 credits**

Basic issues studied by philosophers. Topics include the nature of freedom, the rational foundations for atheism, human existence and meaning, the nature of knowledge, and issues in aesthetics.

CPHI 231: Ethics and Human Values.**3 credits**

Detailed analysis of selected moral philosophers. Various approaches to value theory in conjunction with specific contemporary ethical issues are examined.

CPHI 241: Philosophy of Religion.**3 credits**

Critical examination of selected contemporary and classical issues of religion. Typical topics include proofs for the existence of God, the problem of evil, the nature of religious experience, and the reliability of religious truth claims.

CPHI 251: Business Ethics.**3 credits**

Consideration of ethical questions in business practices including corporate responsibility, conflict of interest, employee rights, colonialism and imperialism, truth in advertising, environmental protection, preferential hiring, affirmative action, and Marxist versus capitalist views on economic justice.

CPHI 254: Media Ethics.**3 credits**

Value questions arising in conjunction with mass media. Discussions of the pervasive influence of the media, together with the aims and restrictions that are, or ought to be, imposed on the media. Topics include the nature of various media, value assumptions in news selection and programming, minorities and the media, the influence of television on children, the rights and responsibilities of journalists, and violence and the media.

CPHI 262: Science, Technology, and Human Values.**3 credits**

Exploration of fundamental value questions and dilemmas associated with training and research in the sciences. Covers applications of science to technology and industry.

CPHI 331 and 332: History of Western Philosophy: Africa to Present.**3 credits each**

Two-semester survey of the major figures in Western philosophy, beginning with the antecedents to Greek philosophy in Africa. CPHI 331 covers the period of origin through Greek and Medieval thought. CPHI 332 includes modern and contemporary philosophers. Students may take either course independently or both in sequence.

CPHI 353: Representative Problems of Philosophy. **3 credits**

Classic philosophical problems explored in more depth than is possible at the introductory level. Students are encouraged to engage in out-of-class research and independent thought.

CPHI 362: Social and Political Philosophy. **3 credits**

Examination of philosophical assumptions underlying different political systems. Topics include the nature of social existence, freedom, rights, and the individual and society.

CPHI 401 and 402: Off-campus Study. **3 credits each**

For students who wish to take courses at institutions outside the Atlanta University Center or to study abroad as part of their major program.

CPHI 411: Islamic Philosophy. **3 credits**

Chief ideas, arguments, and general philosophical concerns of selected thinkers and schools of thought in the Islamic philosophical tradition. Centers on specific historical figures and philosophic and religious traditions, including Islamic mysticism.

CPHI 421: Philosophies of the African Continent. **3 credits**

Examination of the diversity of African philosophical thought. Intellectual traditions from both north and sub-Saharan Africa are studied.

CPHI 431: African-American Philosophy. **3 credits**

Introduction of personalities representative of the African-American philosophical tradition. Insight into the general character of this tradition and its distinctive style of philosophizing. Also emphasizes issues in social philosophy, ethics, and religion.

CPHI 451 through 454: Special Topics in Philosophy. **3 credits each**

Upper-division students explore issues with present-day philosophical significance. Open to majors and nonmajors.

CPHI 482/483: Independent Study. **1-3 credits**

Development of analytical and interpretive skills. In consultation with an instructor, upper-division students may select an appropriate subject to explore. Independent study requires extensive reading and written work.

CPHI 484 through 487: Para-Curricular Study in Philosophy. **1-3 credits**

On-the-job training. Students, with approval from their advisor, may select internships in line with their prospective career choices.

PHYSICAL EDUCATION COURSE DESCRIPTIONS

CPED ___: Physical Education.

1 credit

General education requirements for all students. These courses develop recreational skills and abilities for current and future participation in leisure time activities such as badminton, volleyball, basketball, beginning swimming, tennis, modern dance, jazz exercise, softball, and individual fitness programs.

CHPE 358: First Aid, Safety and CPR.

2 credits

This course provides students with the knowledge and skills necessary in an emergency. It presents opportunities for students to recognize emergencies and make appropriate decisions for first aid care. Students will take American Red Cross basic Community First Aid and Safety course as well as the Instructor course for First Aid, Adult CPR, and Infant and Child CPR. American Red Cross certificates will be issued to those meeting the requirements of the course.

CHPE 383: Lifeguard Training.

2 credits

This course provides students with the knowledge and skills necessary to operate a safe swimming facility and prepares them to recognize and make appropriate decisions to take action in a water emergency. American Red Cross certification will be issued to those meeting the requirements for the course. Students are also required to complete CPR for the professional rescuer.

CHPE 404: Methods of Teaching Early Childhood Health and Physical Education.

3 credits

This course is designed for candidates who will be teaching physical education at the elementary school level, whether as teachers in the self-contained classroom or as teachers trained as physical education specialists. The course provides a source of information about the most recent trends and developments in physical education, addressing the inclusion of students with special needs, temporary and permanent adaptive strategies, program evaluation, safety procedures, equipment selection, program planning motor exploration, physical fitness, and as a resource for new games, stunts, dances, and fitness development.

PHYSICS COURSE DESCRIPTIONS

CPHY 102/102L: Physical Science and Laboratory.

3 credits

Basic course in physical science which satisfies the core science requirement for all non-science majors. Topics include concepts of motion, space sciences, chemical process, conservation of energy, properties of heat, electricity and light. Students are also required to attend one (1) two-hour laboratory each week.

CPHY 104/104L: Introduction to Earth System Science and Lab.

4 credits

Course provides a scientific understanding of the physical earth system –lithosphere, hydrosphere, atmosphere, and solar system. Topics include: common landforms, identification of mineral and rock specimens, major types of earth movements, dating of rock strata, fundamentals of the hydrologic cycle, introduction to oceanography, properties and processes in the earth's atmosphere, and elementary concepts of astronomy. Students are also required to attend one (1) two-hour laboratory each week. This course can be used to satisfy the core science requirements for all nonscience majors.

CPHY 105: Orientation to Earth System Science.

1 credit

An introduction to the opportunities, career choices, problems and curricula in the Earth System Science Program.

CPHY 106/106L: Introduction to Earth System Science II and Lab.

4 credits

A more quantitative discussion of topics covered in CPHY 104. Topics include: isostasy, origin of magma, plate tectonics, aerial photographs, map projections, geologic maps, water balance, and observational astronomy. Environmental hazards will be studied: volcanic, flood, dryland, coastal, earthquake, and groundwater risks. This course fulfills the requirement for middle school education majors who have a concentration in science. *Prerequisite: CPHY 104.*

CPHY 111/111L: General and Modern Physics and Lab.

4 credits

Lecture and laboratory course for students who desire a basic background in physics. Required for biology and chemistry majors. Topics include: introduction to basic physics concepts of mechanics, heat, and sound, with emphasis on applications in broad areas such as chemistry and biology. Three (3) lecture hours and one (1) three-hour laboratory per week. Prerequisites: three (3) units of high school mathematics, including algebra and trigonometry.

CPHY 112/112L: General and Modern Physics and Lab.

4 credits

Continuation of CPHY 111. Introduces students to basic principles in the physics of electricity, magnetism, optics, and atomic physics. Three (3) lecture hours and one (1) three-hour lecture-laboratory per week. *Prerequisite: CPHY 111.*

CPHY 121/121L: Physics I: Mechanics and Lab.

3 credits (Lecture) + 1 credit (Laboratory)

An introductory physics course for students with a background in basic calculus. Topics include kinematics, dynamics, laws of conservation of momentum and energy, rational motion, oscillatory motion. Three (3) lecture hours and one (1) three-hour laboratory per week. *Pre- or Corequisite: CMAT 111.*

CPHY 122/122L: Physics II: Electricity and Magnetism and Lab. 3 credits (Lecture) + 1 credit (Laboratory)

Continuation of CPHY 121. Students explore electromagnetic forces, induction, static and time-dependent electromagnetic fields, electric circuits, fields and potentials, and electromagnetic waves. Three (3) lecture hours and one (1) three hour laboratory per week. *Prerequisite: CPHY 121. Pre- or Corequisite: CMAT 112.*

CPHY 123/123L: Physics III: Optics and Modern Physics and Lab. 3 credits (Lecture) + 1 credit (Laboratory)

A continuation of PHY 121 and CPHY 122. Topics include: wave propagation, sound, heat, and principles of thermodynamics, geometric optics, physical optics, atomic physics and nuclear physics. Three (3) lecture hours and one (1) three hour laboratory per week. *Prerequisite: PHY 122.*

CPHY 211: Modern Physics. 3 credits

Basic study of atomic and nuclear physics, with emphasis on the experimental foundation of these subjects. Topics include: introduction to the theory of relativity, atomic theory of matter, Rutherford scattering, photoelectric effect, production and characteristics of x-rays, lasers, introductory quantum physics, atomic spectra, radio activity, elementary particles, and particle accelerators. Three (3) one-hour lectures per week. *Prerequisites: CPHY 123.*

CPHY 301: Co-Op Program. 3 credits

Academic credit for physics majors working during the academic year in approved industry positions. To receive credit for cooperative experiences, students must secure approval from the Department Chair, who will arrange internships with project monitors at specific work sites. Students who do not follow this procedure will not receive cooperative academic credit.

CPHY 312: Optics. 3 credit

Study of the electromagnetic theory of light and the interactions of light and matter. Topics include: geometrical optics and optical instrumentation, physical optics (diffraction and interference effects), spectroscopy and interferometry. Certain topics in modern optics, such as holography and lasers, also are discussed. Three (3) one-hour lectures and one (1) four-hour laboratory per week. *Prerequisite: CPHY 123.*

CPHY 321: Mathematical Physics I. 3 credits

Application of mathematical techniques to physical systems. Students review basic concepts of differential and integral calculus. Topics include infinite sequences and series, systems of linear determinants and matrices, and special functions. The course emphasizes numerical methods and application to physics and chemistry. Three (3) one-hour discussion and problem sessions per week. *Prerequisites: CPHY 123.*

CPHY 322: Mathematical Physics II. 3 credits

Continuation of CPHY 321. Topics include: partial differentiation, multiple integral, first- and second-order ordinary differential equations, numerical methods of solving differential equations, vector algebra, vector analysis, probability, and statistics. *Prerequisite: CPHY 321.*

CPHY 331: Classical Mechanics. 3 credits

A rigorous development of the concepts of classical physics and the mathematical techniques used therein. Students examine the common mathematical formalism in vector analysis, hydrodynamics, and electromagnetism. Other topics include Galilean relativity, kinematics and dynamics of particle

systems, rigid bodies, oscillations, wave motion, and Lagrangian mechanics. Three (3) one-hour lectures per week. *Prerequisites: CPHY 123.*

CPHY 332: Electromagnetic Theory. 3 credits

Physical and mathematical foundations of electromagnetism. Students explore electrostatic fields and potentials, electric fields around conductors, electric current, field of moving charges, magnetic fields, and electromagnetic induction. Maxwell's equations, alternating current circuits, electric fields in matter, free oscillations in systems with many degrees of freedom, forced oscillations, traveling waves, modulations, pulse and wave packets, reflection, polarization, and interference and diffraction. Three (3) one-hour lectures per week. *Prerequisite: CPHY 123.*

CPHY 341: Advanced Lab. 3 credits

Consists of introduction to classical experiments of physics such as the measurement of the charge to mass ratio of the electron, Planck's constant, Milliken oil drop experiment, and others. Advanced laboratory techniques and data analysis are also covered. *Prerequisite: CPHY 123.*

CPHY 350: Physics of Earth Systems. 3 credits

Fundamental principles of radiation, absorption and emission of radiation, solar and terrestrial radiation, radiative transfer and heating rates, surface and global energy balances, role of greenhouse gases, aerosols and clouds in climate change.

CPHY 353: Weather Analysis and Prediction. 4 credits

Provides an introduction to atmospheric structure and synoptic meteorology. Laboratory exercises include weather analysis and forecasting.

CPHY 355: Atmospheric Thermodynamics. 3 credits

Atmospheric composition, equation of state, first and second laws of thermodynamics, thermodynamics of dry and moist atmospheres, thermodynamic diagrams, static and dynamic atmospheric stability. *Prerequisites: CMAT 211 and CPHY 121.*

CPHY 357: Atmospheric Aerosols. 4 credits

Physical and chemical properties of aerosol particles, natural and anthropogenic sources, techniques for detecting and measuring aerosols, spatial distribution of aerosol particles, the role of particles in atmospheric chemistry, air pollution and cloud formation, as well as optical properties and their effects on atmospheric visibility. Topics also include radiative effects and implications for the earth's climate. *Prerequisites: CMAT 211 and CPHY 121.*

CPHY 360: Numerical Methods in Earth System Science. 3 credits

Most of today's geoscience problems can be represented in form as ordinary and partial differential equations. Course provides an opportunity for students to understand the physical aspects of geoscientific phenomena using mathematical methods as tools. *Prerequisites: CMAT 212, CMAT 214, and CPHY 121.*

CPHY 365: Dynamics of the Earth System. 3 credits

Description and theory of atmospheric and oceanic motion: analysis of forces; accelerated reference frames; conservation equations of mass, momentum and energy; scaling; pressures coordinates; geostrophic and gradient flow; thermal wind; trajectories; circulation and vorticity. *Prerequisite: CPHY 355.*

CPHY 370: Earth System Measurements. **3 credits**

Physical principles of seismic, hydrological and atmospheric instruments, static and dynamic performance characteristics, use of data loggers in instrumentation and in measurement systems. *Prerequisites: CIS 103, CMAT 211, and CPHY 121.*

CPHY 375: Instrumentation Electronics. **4 credits**

Physical concepts of electronics, basic test instruments, electronics mathematics, DC and AC circuit analysis, measurement errors, linear circuits, digital electronics, systems, solid state electronics, components and transducers. *Prerequisites: CPHY 112 and CPHY 123.*

CPHY 411: Thermodynamics and Statistical Mechanics. **3 credits**

The concepts and methods of classical thermodynamics and its relation to statistical mechanics. Topics include thermodynamic laws, kinetic theory, and thermodynamic functions and their application to simple systems. Three (3) one hour lectures per week. *Prerequisite: CPHY 321.*

CPHY 412: Introduction to Quantum Mechanics. **3 credits**

Concepts of wave particle duality, Heisenberg's Uncertainty Principle, and Schrodinger's Wave Equation, with applications to potential problems of the hydrogen atom and atomic spectra, first-order perturbation theory, spin orbit interaction, and particle theory. Three (3) one-hour lectures per week. *Prerequisite: CPHY 332.*

CPHY 421 and 422: Undergraduate Research I and II. **3 credits**

Individual exposure to the methodology of experimental and theoretical research in physics. Experiments emphasize modern physical techniques and require considerable independent reading and investigation. Individual schedules are arranged at the beginning of the term, depending on the student's interest and experience. *Prerequisite: permission of Department Chair.*

CPHY 441/442: Internship. **3 credits**

Professional work experience for students during the summer months. Interns may work in Atlanta or in other locations. To receive academic credit for internship, students must secure approval from the Department Chair, who will arrange internships with project monitors at specific work sites. Students who do not follow this procedure will not receive internship academic credit.

CPHY 445: Introduction to Micrometeorology. **4 credits**

Energy budget and radiation balance near the surface; air temperature, humidity and wind distribution in the atmospheric boundary layer; viscous flows and turbulence; neutral boundary layers, momentum and heat exchanges with homogeneous surfaces; nonhomogeneous boundary layers, agricultural and forest meteorology. *Prerequisite: CPHY 375.*

CPHY 450: Radiative Transfer and Passive Remote Sensing. **4 credits**

Fundamentals of electromagnetic radiation. Emphasis on solar radiation at the top of the atmosphere, scattering and absorption of solar radiation in the atmosphere, infrared transfer in the atmosphere. Measurement of scattered sunlight or radiation emitted by the atmosphere using ultraviolet, visible, infrared or microwave sensors. *Prerequisite: CPHY 123.*

CPHY 452: Active Remote Sensing. **4 credits**

Principles of meteorology sensors; radar principles; radar equation; radar application; radar accuracy; sodar and lidar equations, applications and accuracy; interpretation of data from active and passive remote sensing systems. *Prerequisite: CPHY 375.*

CPHY 460: Atmospheric Chemistry.**4 credits**

Basic structure of the planet; detailed structure of the atmosphere; how the present atmosphere evolved from the primordial atmosphere; what happens to solar radiation as it passes through the atmosphere; the presence of oxygen and its relation to ozone and living systems; chemical equilibrium and rates of reactions; differences between reactions with rates that depend primarily upon temperature versus sunlight; Chapman's theory of ozone formation in the stratosphere; improvements to the simple model; the role of aerosols on chemical change; the role of chlorofluorocarbons on the "ozone hole"; chemical cycles in the lower atmosphere; urban photochemical smog and acid-rain; chemistry on other planets. *Prerequisite: CMAT 111 and CCHE 112.*

CPHY 470: Earth System Modeling.**4 credits**

Application of numerical modeling techniques to the earth system; use of computer modules representative of earth system components presented as hands-on laboratory exercises, including impact of basic energy exchanges processes on temperature and evolution of horizontal motions in the atmosphere; satellite data. *Prerequisite: CPHY 360.*

POLITICAL SCIENCE COURSE DESCRIPTIONS**CPSC 106: Politics and Global Issues.****3 credits**

This course is offered as part of the General Education curriculum. The course introduces students to the discipline of Political Science surveys the various fields of Political Science – comparative politics, political theory and international relations. Emphasis also lies with training students to use technology and the learning skills of critical thinking, writing, and speaking.

CPSC 219: American Government and Politics.**3 credits**

This is an introductory course providing understanding of the institutions and ideas basic to the American political experience and the process that shapes public participation and governmental decision.

CPSC 220: Introduction to Public Policy.**3 credits**

This course offers an exploration of three major policy areas: health, income inequality (poverty), and human resource development. It emphasizes effects of policy programs on a variety of groups and the overall costs and benefits of policies. Students explore topics through computer-game simulation, graphs, aggregate data, and conventional case-study readings.

CPSC 221: State and Local Government.**3 credits**

This course provides an examination of state and local governmental institutions, the tools of political participation as practiced by various groups, state and local public policies, and the role state and local governments play in the federal system.

CPSC 309: Introduction to Urban Planning.**3 credits**

This course presents an introduction to the history, theories, and activities of urban planning. Students discuss trends in urbanism and influences of technical and social change, particularly as these relate to planning for human resource development.

CPSC 313: Urban Politics and Policy.**3 credits**

The politics of the American metropolis is the focus of this course, with primary focus on the use of power and influence. Students devote attention to the formulation and impact of public policies and to the conditions and politics of minorities in urban areas.

CPSC 315: Comparative Politics.**3 credits**

Students are introduced to the subfield of comparative politics, and the use of key analytic concepts to generalize about political systems, the way they function, as well as uniformities and variations in political systems.

CPSC 319: Electoral Politics.**3 credits**

This course presents the history of elections, political parties, electoral methods, and the practical aspects of campaigning, and voting behavior. Students consider the use of political questionnaires and polling, and examine the platforms of political candidates in current races.

CPSC 322: International Relations.**3 credits**

This course introduces students to the basic concepts of international relations, including foreign policy decision-making, conflict, deterrence, interdependence, coercive diplomacy, and international systems. Special attention is given to major regional and global wars, the dynamics of interwar years, the Cold War era, the politics of international economics, and the influence of major nongovernmental actors in world affairs.

CPSC 336: Current World Problems.**3 credits**

Students are presented lectures on contemporary world issues, particularly as they affect the United States. Focusing on their individual areas of interest, students conduct extensive research on policies, problems, and solutions and lead class discussions on their findings. *Prerequisite: PSC 219.*

CPSC 337: Statistics I.**Fall, 3 credits**

Introduction to descriptive statistics, including associational measures and probability. *Prerequisite: General Education mathematics requirements.*

CPSC 338: Statistics II.**Spring, 3 credits**

Introduction to inferential statistics, hypothesis testing, simple use of analysis of variance, and correlation coefficients. *Prerequisite: An introductory statistics course.*

CPSC 352: American Foreign Policy.**3 credits**

Students engage in an analysis of the formulation and execution of American foreign policy and its purposes and trends. The topics covered include historical evolution of U.S. foreign policy, economic and political factors, national and international determinants, instruments of policy execution, and major problems faced by recent presidential administrations.

CPSC 361: Political Theory I.**Fall, 3 credits**

Major political ideas, from Machiavelli to pre-Marxian socialism, are covered throughout this course, with a special focus on the concepts of power, legitimacy, authority, liberty, and equality.

CPSC 362: Political Theory II.**Spring, 3 credits**

Major political ideas of the nineteenth and twentieth centuries are examined, including modern notions of democracy, socialism, communism, liberalism, and nationalism.

CPSC 371: Science and Public Policy.**3 credits**

This course offers a survey of the use of science and the scientific method as applied to public policy. Government institutions involved in scientific studies are examined, and the role of expertise in policy making and the possible social effects of scientific discoveries are considered.

CPSC 372: Comparative Public Policy.**3 credits**

The difference in the scope and substance of major public policies affecting the United States and other countries, principally Western European, are examined in this course. Students explore the “how, why, and what” of government action in policy areas such as health, education, taxation, housing, transportation, and income maintenance.

CPSC 374: Constitutional Law.**3 credits**

This course focuses on an analysis of the U.S. Constitution using the case study method. Among topics covered are the Supreme Court, federal jurisdiction, commerce power, taxation, and spending powers. This course is highly recommended for students planning to attend law school.

CPSC 375: Political and Civil Rights.**3 credits**

Political and personal freedoms under the Bill of Rights and the Fourteenth Amendment to the U.S. Constitution are examined. Sound analysis of the principles underlying civil and human rights is stressed. This course is especially recommended for students planning to attend law school. *Prerequisite: PSC 374 or permission of instructor.*

CPSC 387: Scope and Methods of Research.**Fall, 3 credits**

This course provides a formal introduction to concepts, theories and major subfields of political science, and essential social science research method and skills students will need to conduct qualitative and normative research on political and social issues. Students learn how to select and apply appropriate social science research techniques methods to a particular problem. (Course limited to first-semester juniors and seniors.)

CPSC 394: Politics in Contemporary Thought.**3 credits**

Review of current trends in modern political science. Students research the most recent research in the fields of public policy, historical and behavioral methods, political theory, international affairs, and American politics.

CPSC 420: Politics of Africa.**Spring, 3 credits**

This course provides an overview of government and politics of modern Africa. It examines the ongoing dynamic relationship between modern and traditional political beliefs and institutions and identifies major issues, problems, and proposed solutions.

CPSC 479: Senior Thesis.**Spring, 3 credits**

The senior, in consultation with her/his advisor, selects a thesis topic, and devotes a full semester to research design, and implementation, the results of which are submitted to the advisor and the Department in the form of a Senior Thesis written report and oral presentation. *Prerequisites: PSC 361-362 Political Theory I and II, and PSC 387 Scope and Methods of Research.*

CPSC 480/483: Independent Study.**3 credits each**

Students pursue a program of selected reading, research, and writing and engage in a critical examination of one or more selected topics under the guidance of an instructor. *Prerequisite: Permission of Department Chairperson.*

CPSC 484/486/487: Internship.**3-9 credits**

Varied internship placement programs are made available to junior- and senior-level majors at all levels of government and in public interest organizations. Activities include attending seminars and producing a research paper. This course can be repeated for a maximum of 9 semester hours. *Prerequisite: Presentation and acceptance of formal application presented to Internship Coordinator during preregistration of the projected term for placement, and approval of the Department Chairperson.*

CPSC 490: Washington Internship in Public Policy.**3 credits**

This is an opportunity for a one-semester internship placement in a Washington, D.C.–based agency or organization. Students attend seminars, work in a Congressional office, and produce a significant research paper documenting experiences and new learning. The internship is open to students in all majors who have outstanding academic records and are interested in careers in the public sector or current issues confronting the disadvantaged.

PSYCHOLOGY COURSE DESCRIPTIONS**CPSY 211: General Psychology.****3 credits**

Introduction to basic psychological concepts and methodology. Surveys major research areas, including the nervous system, perception, learning, motivation, development, and personality. General Psychology provides the foundation for more advanced study in psychology.

CPSY 218: Human Growth and Development.**3 credits**

Covers issues, theories, and research on the cognitive, social, personality, and physical development of humans throughout the lifespan with emphasis on the influences of gender and culture.

CPSY 301: Educational Psychology.**3 credits**

For prospective teachers: a survey of the basic principles, theories, and techniques of applying psychological theory to the learning process. Students identify common problems teachers confront in the classroom and apply course material to typical classroom situations.

CPSY 313: Statistics I.**3 credits**

Descriptive statistics and the basic components of experimental design. Students are introduced to measures of central tendency and variation, making and interpreting graphs, and organizing data. Also covers probability and introduces students to one sample T-Test and Chi-Square. *Prerequisites: CPSY 211 and CMAT 105.*

CPSY 314: Statistics II.**3 credits**

Hypothesis testing and inferential statistics. Students are introduced to a variety of statistical tests, both parametric and nonparametric, among which are regression, T-Tests, complex Chi-Square, independent and repeated analysis of variance tests, and Mann-Whitney U and Wilcoxon signed-ranks tests. *Prerequisites: CPSY 211, and 313 and CMAT 105.*

CPSY 315: Social Psychology.**3 credits**

Study of the individual in society. Emphasis is on cognition, attitude formation and change, and group behavior. *Prerequisite: CPSY 211.*

CPSY 316: Introduction to Psychological Testing. **3 credits**
The construction, standardization, scoring, administration, use, and interpretation of group and individual psychological tests. *Prerequisites: CPSY 211 and 313.*

CPSY 318: Industrial and Organizational Psychology. **3 credits**
Survey of methods and findings in the scientific study of humans at work as applied to business, industry, and government. Topics include employee selection, training, and motivation. *Prerequisites: CPSY 211 and 313.*

CPSY 320: Social and Personality Development. **3 credits**
A detailed look at the interaction between the physical, cognitive, and emotional aspects of development on topics such as moral reasoning, altruism, and the development of individuality. The ecological (family, peers, school, etc.) influences on the developing person will also be examined. *Prerequisite: CPSY 211*

CPSY 330: African-Centered Psychology. **3 credits**
An examination of the behavior, attitudes, life-styles, and cultural heritage of African Americans. This course is offered to introduce students to concepts, theories, and research pertaining to Black Psychology. This course is organized around the premise that there is a distinctive, coherent African-centered perspective that is evident in the behavior, attitudes, life-styles, and expressive patterns of people of African descent. *Prerequisite: CPSY 211.*

CPSY 358: Human Sexuality. **3 credits**
Understanding of human sexuality and its relationship to the emotional, physical, intellectual, and social aspects of the individual. Students also explore concepts of self-esteem and factors affecting interpersonal relationships.

CPSY 371/371L: Experimental Psychology with Laboratory. **4 credits**
Experimental design, sensation, and perception. Students acquire skill in the use of the scientific method, investigative methods, and data collection and analysis. Three (3) lecture hours and two (2) laboratory hours per week. *Prerequisites: CPSY 211 and 313.*

CPSY 377: History and Systems of Psychology. **3 credits**
Philosophical antecedents of the concepts of modern psychology. Students explore the life and works of significant personalities in the field of psychology and trace major theoretical viewpoints in the historical development of modern psychology. *Prerequisite: CPSY 211.*

CPSY 385: Abnormal Psychology. **3 credits**
Study of psychopathology, including history, demography, etiology, diagnosis, symptoms, and treatment. *Prerequisite: CPSY 211.*

CPSY 413: Learning. **3 credits**
Current theories and research on the processes of learning and memory. Topics studied include classical and operant conditioning, reinforcement and punishment, discrimination and generalization, and the various parts of the human memory system. *Prerequisite: CPSY 211.*

CPSY 415: Physiological Psychology. **3 credits**
Study of physiological aspects of human behavior, with emphasis on neurological structure and function. Major topics include the basic structure and function of neurons and the nervous system as

well as the physiological basis of eating and drinking, sexual behavior, sleep and dreaming, and drug abuse. *Prerequisites: CPSY 211 and CBIO 111.*

CPSY 417: Independent Research. 3 credits

A specific experimental research project, usually in conjunction with a faculty member on some aspect of his or her research. Independent Research may be taken twice for credit. *Prerequisites: CPSY 211, 313, 314, 371, and permission of instructor.*

CPSY 418: Seminar. 3 credits

Lectures, reports, and discussions of selected topics of interest and importance to advanced undergraduate psychology majors. *Prerequisites: CPSY 211 and senior standing (at least 88 hours completed).*

CPSY 420: Special Topics. 3 credits

Exploration of diverse topics in psychology, such as job opportunities, test preparation, graduate school opportunities, and current events with psychological implications. Presenters include students, faculty and professional psychologists. Also serves as a forum for students and faculty to present their research findings. *Prerequisite: CPSY 211.*

CPSY 480/483: Independent Study. 3 credits each

Students, in consultation with supervising faculty member, follow detailed plans of self-directed study on topics of the students' choice. *Prerequisites: CPSY 211 and permission of instructor.*

CPSY 488/491: Internship. 3 credits each

A semester of firsthand experience working in a psychological agency with clients needing help with psychological problems. Interns work three (3) hours each week under the direction of a professional within a designated agency and a member of the Department of Psychology faculty. Students must arrange internship details with the agency and the Department. Satisfies the University-wide service requirement. *Prerequisites: CPSY 211 and junior or senior standing.*

CPSY 492/495: Cooperative Education Experience. 3 credits each

Opportunity for students to work in a psychological agency in order to acquire practical experience in psychological work and a better understanding of human relations. Students design their cooperative experience in collaboration with a sponsoring agency and University Cooperative Education personnel, ensuring that the proposed experience parallels and enhances their academic studies. *Prerequisites: CPSY 211 and Department approval.*

RELIGION COURSE DESCRIPTIONS

CREL 101: The Biblical Heritage. 3 credits

The literature of the Bible and its influence on the shaping of Western culture. Modern biblical scholarship used to examine selected readings from the Old and New Testaments for their contributions to the understanding of human existence.

CREL 103 and 104: African-American Religious Experiences. 3 credits each

Analysis of the origin, development, and social significance of African-American religious beliefs and practices from an historical perspective. CREL 104 emphasizes the contemporary period, including the latest developments in black liberation theologies. Students may take either course independently or both in sequence.

CREL 211: Introduction to Religious Studies.

3 credits

Introduction to the study of religion in a variety of contexts: historical, social, psychological, scientific, philosophical, artistic, and literary. Readings include representative works from the past and the present.

CREL 241 and 242: American Religious Tradition.

3 credits each

Historical approach to the American religious tradition as inclusive of cultural and ethnic diversity. CREL 241 extends into the late nineteenth century and includes topics such as American Indian tribal religions, the Great Awakening, Wesleyan evangelicalism, religious freedom, slavery and Christianity, and the rise of black churches and movements. CREL 242 focuses on the twentieth century, examining media evangelism, the rise of cults, the church and human rights issues, ecumenism and the burgeoning of Eastern religions, such as African traditional religions in America. Students may take either course independently or both in sequence.

CREL 250: Comparative Religion.

3 credits

Comparative survey of selected religious traditions from the East and West, including traditional African religions, Hinduism, Buddhism, Confucianism, Taoism, Judaism, Christianity, and Islam.

CREL 251: Religious Ethics.

3 credits

Examination of major ethical issues confronting contemporary society. Also considers appropriate ethical responses to issues from a religious perspective. Topics include sexual ethics, abortion, racism, sexism, the ethics of war (especially nuclear war), capital punishment, genetic engineering, euthanasia, and professional ethics.

CREL 351 and 352: History of Christian Thought.

3 credits each

Development of Christian thought from the early church to the present. CREL 351 covers early and Medieval thinkers in Africa and Europe, including late Medieval male and female mystics, and concludes with the Protestant Reformers. CREL 352 examines major Christian thinkers of the modern period, including the latest developments in black and feminist theology. Students may take either course independently or both in sequence.

CREL 361: Culture and Religion.

3 credits

Study of structure, function, and influence of religion from a cultural perspective. Drawing from recent sociological and anthropological literature, explores the origin, significance, and relation of religion to culture.

CREL 362: Psychology of Religion.

3 credits

Examination of the major aspects of religious experience by means of psychological study. Entails critical discussions and analyses of traditional and contemporary psychological theories as these apply to evaluating the impact of religious experiences.

CREL 375 and 376: Religion and the Media.

3 credits each

Historical and philosophical interpretation of religion in the media, including religious drama, evangelism, and other art forms. CREL 375 focuses on theory, CREL 376 on media techniques. Students may take either course independently or both in sequence.

CREL 383: Religions of Africa.

3 credits

Study of representative religious traditions of Africa, including African tribal religions and adaptations of non-indigenous ones.

CREL 401/402: Off-Campus Study.**3 credits each**

For students who wish to take courses at institutions outside of the Atlanta University Center or to study abroad as part of their major program.

CREL 435: Contemporary Religious Thought.**3 credits**

New developments in Western religious thought, with emphasis on critical examination of representative religious thinkers and movements of the present century. Topics include rethinking of the concept of God; the rise of ethical relativism, pluralism, and secularism; and new forms of theology, such as process, black theology, feminist, and metaphorical theologies.

CREL 451 through 454: Special Topics in Religion.**3 credits**

Upper-division students explore current issues and thinkers in religion and ethics in the context of professional concerns and life situations. Topics such as religion and sexuality, world missions, religious motifs in the arts, liberation theology, and religion and politics are treated. May be repeated for credit under a different topic. Open to majors and nonmajors.

CREL 482/483: Independent Study.**1-3 credits**

Development of analytical and interpretive skills. Upper-division students, in consultation with an instructor, select an appropriate subject. Independent Study requires extensive reading and written work.

CREL 484 through 487: Internship.**1-3 credits**

Credit for experience gained through on-the-job training. Students, in consultation with their advisors, may select an internship in line with prospective career choices.

SOCIAL WORK COURSE DESCRIPTIONS

All Social Work majors must complete the following required courses:

PREREQUISITES**CUSW 200: Introduction to Social Work.****Fall, 3 credits**

This is the first prerequisite course for students interested in social work. The course traces the development of social work from early volunteer efforts to the present organizations in social welfare and includes various fields of social work practice and career opportunities.

CUSW 202: Introduction to Professional Helping.**Spring, 3 credits**

This course is a study in self-assessment, personal values clarification, problem solving and interviewing skills for career choices in social services. A directed field observation experience of at least 50 clock hours is required.

(CUSW 200 must be taken prior to or concurrent with this course.)

MAJOR CORE COURSES**CUSW 300: Social Welfare Policies and Services.****Spring, 3 credits**

This course is designed to familiarize students with social welfare policy formation and how corresponding organizational structures that impact programs, services and clients. The course also explores and analyzes select historical and current perspectives in developing policy to address societal issues. *Concurrent: USW302, USW412, and USW413.*

CUSW 301 Social Research Methods for Social Work Practice I. **Fall, 3 credits**

This course introduces students to methods for social work research. The course takes students through research problem formulation, methods for answering research questions (qualitative and quantitative methods – interviews, surveys, case studies, practice effectiveness, etc.), and the major components of research design (sample, measurement, design, and procedures). *Prerequisites: CUSW USW200, USW202. Concurrent: USW301, USW350, USW360 and USW411.*

CUSW 302: Statistics for Social Work Practice II. **Spring, 3 credits**

This course introduces students to descriptive and inferential statistics. In addition to learning about the use of statistics, students will learn to analyze, present, and interpret data based on the methodologies learned in the prerequisite course using the Statistical Package for Social Sciences (SPSS) computer application for data analysis. *Concurrent: USW300, USW412 and USW413.*

CUSW 350: Issues of Health Disparities Among Minority Populations. **Fall, 3 credits**

This course introduces students to select issues regarding health disparities that are dominant among minority populations. The course is divided into three modules: (1) current major health disparities (2) community-based health programs; and (3) a review of research methodologies and best-practice approaches to address the issues of health disparities in the United States. *Prerequisites: CUSW200 and USW202. Concurrent: USW301, USW360 and USW411.*

CUSW 360: Interpersonal Skills Laboratory. **Fall, 3 credits**

This course objective is to enhance basic social work skills such as interviewing, problem solving, time management, technical writing, group processing, and empathic understanding. This course is also designed to assist students in developing effective communication and problem solving skills applicable to micro and mezzo systems. *Prerequisites: CUSW 200, 202. Concurrent: USW301, USW350 and USW411.*

CUSW 401: Human Behavior and the Social Environment I. **Fall, 3 credits**

This course focuses on the life stages from conception through adolescence and introduces students to multiple factors that influence the reciprocal relationship between the person and their environment. Students explore theoretical frameworks and, analyze and synthesize a range of behavioral constructs and contemporary social problems. *Prerequisite: All required junior level courses. Concurrent: USW403, USW405 and USW415.*

CUSW 402 Human Behavior and the Social Environment II. **Spring, 3 credits**

This course focuses on the life stages of young adulthood through late adulthood and introduces students to multiple factors that influence reciprocal relationships between the person and their environment. Students explore theoretical frameworks and, analyze and synthesize a range of behavioral constructs and contemporary social problems. *Concurrent: USW404, USW406 and USW416.*

CUSW 403: Practice Competencies I. **Fall, 3 credits**

This course is designed to provide students with a synthesis of generalist social work knowledge, values, skills, and roles for integration into appropriate and effective helping strategies for professional practice with individuals, families, groups, communities, and organizations. *Prerequisite: All required junior level courses. Concurrent: USW401, USW405 and USW415.*

CUSW 404: Practice Competencies II. **Spring, 3 credits**

This course is designed to provide students with knowledge and skills to apply supervision, consultation, into generalist social work practice. Emphasis is placed on teamwork in agencies and

organizations, and techniques for interpreting and applying organizational policies and mandates, resource identification, and select methods for conducting community assessments. *Concurrent: USW402, USW406, and USW416.*

CUSW 405: Field Instruction I.

Fall, 6 credits

The course is an educationally directed practicum offered in a social service setting, emphasizing assessment and planning, and their relationships to improve social services delivery. Students complete 192 clock hours and participate in bi-monthly Seminars designed to provide students opportunities to discuss their experiences, bridging theories and real-life practice. *Prerequisite: All required junior level courses. Concurrent: USW401, USW403 and USW415.*

CUSW 406: Field Instruction II.

Spring, 6 credits

The course is an educationally directed practicum offered in a social service setting, emphasizing evaluation and research, and their relationships to improve social services delivery. Students complete 224 clock hours and participate in bi-monthly Seminars. Seminars are designed to integrate and synthesize theories of social service administration with practice *Concurrent: USW402, USW404, and USW416.*

CUSW 411: Social Work Theory and Practice.

Fall, 3 credits

This course introduces the relationship of theory and practice skills needed to practice with all systems. Primary focus is placed on structural rather than personal explanations of social problems with concern for inequality and oppression. The course integrates social work values and ethics, diversity, promotion of social and economic justice, and empowerment of human beings. *Prerequisites: CUSW200, USW202. Concurrent: USW301, USW350 and USW360.*

CUSW 412: Mental Health of Diverse Groups.

Spring, 3 credits

This course provides students with knowledge of mental health services and its application for diverse groups: i.e. African Americans, Hispanics, Native Americans, physically handicapped, migrant workers, women, and the elderly. Life situations impacting the behavior of these populations are examined from an ecosystems perspective in an effort to understand the mental health problems that may emerge. *Concurrent: CUSW300, USW302, and USW413.*

CUSW 413: Child Welfare Programs and Services.

Spring, 3 credits

The course covers knowledge, concepts and tools associated with contemporary child welfare practice focusing on micro, mezzo, and macro considerations in providing child welfare services. Emphasis will be placed on the identification of child maltreatment, reporting procedures, and continuing professional interaction with children and families from a community-based and multidisciplinary perspective. *Concurrent: CUSW300, USW302, and USW412.*

CUSW 415 Issues in Child Welfare: Abuse, Neglect and Investigation.

Fall, 3 credits

This course provides students with knowledge and information regarding how to assess and identify cases of child abuse and neglect. Students will gain general knowledge and understanding of the types of abuse and neglect, methods of investigations, interviewing techniques, as well as, knowledge of available community resources to both prevent and treat child abuse. *Concurrent: USW402, USW404, and USW416.*

CUSW 416: Social Work Practice with the Aged.

Spring, 3 credits

This course is designed to assist students with the development of competence in the delivery of services to older adults and their families. Students will explore social work practice with the elderly in various service settings. Students will acquire the skills required for interdisciplinary collaboration

and intervention and the application of the problem solving process with all systems. *Concurrent: USW402, USW404, and USW406.*

SOCIOLOGY AND CRIMINAL JUSTICE COURSE DESCRIPTIONS

CSCJ 201: Introduction to Criminal Justice. 3 credits

A study of the historical development and progress of criminal justice systems in the United States, including an overview of the functions and responsibilities of various agencies of the Criminal Justice Systems.

CSCJ 205: Law Enforcement. 3 credits

A comprehensive survey of the history and functions of the law enforcement agency, including discussions of selected topic dealing with contemporary problems affecting law enforcement. *Prerequisite: CSCJ 201 or permission of Instructor.*

CSCJ 215: Introduction to Sociology. 3 credits

Basic concepts and principles of human society. Students examine the social structure, group interaction, and processes of social arrangements.

CSCJ 216: Introduction to Anthropology. 3 credits

Basic concepts of anthropological studies. This course presents an overview of social and cultural anthropology.

CSCJ 218: Social Problems. 3 credits

An examination of current social problems and issues in the United States. Topics include drug addition, child abuse, battered women, abortion, poverty, and inequality. Students consider alternative proposals for resolving social problems.

CSCJ 301: Criminology. 3 credits

A study of the nature and causation of crime, crime typologies and the extent of criminality. *Prerequisite: CSCJ 201 or permission of Instructor.*

CSCJ 305: Criminal Investigation. 3 credits

A coverage of the fundamentals of investigation; duties and responsibilities of the investigator; interrogation techniques of protecting the crime scene; collections and preservation of evidence, scientific aids and other sources of information; court perpetration and case follow-up. *Prerequisite: CSCJ 201 or permission of Instructor.*

CSCJ 308: Medical Sociology. 3 credits

Introduction to health and illness issues and indicators. Examines disease and other health conditions in the context of ethnicity, gender and age.

CSCJ 314: Victimology. 3 credits

Victim role, criminal-victim relationships, and societal reaction to victimization, including crisis-intervention centers, court-related victim/witness services, restitution and compensation. *Prerequisite: CSCJ 201 or permission of the Instructor.*

CSCJ 315: Social Psychology. 3 credits

This course focuses on individuals' interaction within the social environments. There is also an emphasis on cognition, attitude formation and change, and group behavior.

CSCJ 320: Criminal Justice Management. **3 credits**

A study of roles and responsibilities of staff and managers functioning within the various agencies of the criminal justice system. Emphasis on administrative and managerial principles and techniques as they apply to the criminal justice system. *Prerequisite: CSCJ 201 or permission of Instructor.*

CSCJ 337: Statistics I. **3 credits**

Introduction to descriptive statistics, including associational measures and probability. *Prerequisite: General Education mathematics requirements.*

CSCJ 338 : Statistics II. **3 credits**

Introduction to inferential statistics, hypotheses testing, simple use of analysis of variance, and correlations coefficients. *Prerequisite: CSCJ 337 or an introductory statistics course.*

CSCJ 352: Marriage and Family. **3 credits**

An analysis of the American family past and present. Students consider the heritage, contemporary forms, functions, and future trends of American family life.

CSCJ 387: Social Research Methods I. **3 credits**

An introduction to basic research techniques and skills. Students learn how to select and apply appropriate methods to theoretical problems. *Prerequisite: CSCJ 337 or simultaneous enrollment in that course.*

CSCJ 388: Sociological Theory. **3 credits**

Historical and analytical discussions of major theoretical and methodological orientations in the development of sociology from Comte to the present constitute this course.

CSCJ 389: Social Research Methods II. **3 credits**

Students learn to analyze, interpret, and present data. This is a course that stresses project design, sampling, measurement and the application of findings from social research. *Prerequisite: CSCJ 387 or an introductory research course.*

CSCJ 400: Comparative Systems in Social and Criminal Justice. **3 credits**

An analysis of issues in social and criminal justice and their characteristics as they relate to the operation of larger social structures viewed in global perspective. *Prerequisite: junior or senior standing.*

CSCJ 401: Corrections. **3 credits**

The systematic study of the official ways in which society reacts to persons who have been convicted of committing criminal acts, including persons handled by the juvenile courts. *Prerequisite: CSCJ 201 or permission of Instructor.*

CSCJ 403: Judicial Process. **3 credits**

An overview of courts, their legal basis, structure, jurisdiction and operation. An analysis of the legal processes including their historical development; an examination of theories, policies and practices regarding the offender. *Prerequisite: CSCJ 201 or permission of Instructor.*

CSCJ 404: Juvenile Delinquency. **3 credits**

A study of the nature, extent, and causes of delinquency. Methods of prevention, treatment and correction will also be examined. *Prerequisite: CSCJ 201 or permission of Instructor.*

CSCJ 405: Criminal Law. **3 credits**
A survey of the nature and definition of criminal acts; a general study of laws relating to crimes and the punishment for their violation. *Prerequisite: CSCJ 201 or permission of Instructor.*

CSCJ 410: Seminar on Organized Crime. **3 credits**
A study of organized crime including drug and vice offenders within the structures of a Constitutional Democracy. *Prerequisite: Junior standing or permission of Instructor.*

CSCJ: 420 Special Topics I. **3 credits**
Topics vary but may include an examination of the origin, change, and functions of neighborhoods and communities. May also cover community organizations and community development, environmental issues, poverty, crime, and inequality, among other topics.

CSCJ 421: Special Topics II. **3 credits**
A focus on different topics in sociology and criminal justice to vary by semester. Topics include deviance, environmental racism, HIV/AIDS and homophobia, organizational behavior, addictive disorders, sexism, ageism and inequality among others.

CSCJ 425: Internship I. **3 credits**
Provides upper level students the opportunity to perform as participants in established criminal justice agencies at the local, state and federal levels. *Prerequisites: Consent of the Instructor and completion of 90 or more credit hours toward the degree.*

CSCJ 426: Internship II. **3 credits**
Provides upper-level students the opportunity to work with any social or criminal justice agency. Those who have taken CSCJ 425 may use it as a continuing course for 3 additional credit hours. *Prerequisite: Consent of the Instructor.*

CSCJ 430: Cultural and Ethnic Relations. **3 credits**
Analysis of cultural groups both nationally and abroad. Students examine the nature of prejudice and discrimination in a context of similarities and differences of various peoples, especially those of African descent.

CSCJ 431: Social Stratification. **3 credits**
An examination of global inequality relative to race/ethnicity, class, gender, age and other factors

CSCJ 432: Gender Roles. **3 credits**
An examination of cultural expectations and patterns of behavior of men and women in selected societies; focuses on the distribution of resources, prestige, and power in America in comparison to other developed and developing countries.

CSCJ 480: Student Project. **3 credits**
Students pursue a program of reading, research, and writing as well as engage in a critical examination of one or more selected topics under the guidance of the instructor.

CSCJ 490: Independent Study. **3 credits**
Individualized program of research and/or other scholarly effort. *Approval of the Department Chair required.*

SPANISH COURSE DESCRIPTIONS

CFLS 101/102: Elementary Spanish.

3 credits each

Allows the student to acquire a basic level of communication in Spanish and a familiarity with a variety of Spanish-speaking cultures through the utilization of the language in context. A variety of media, including audio, video and the Internet will be employed to complement the textbook. Classes meet three (3) hours per week and an additional hour per week of laboratory work is required. *Prerequisites: None for Elementary Spanish 101; CFLS 101 for Elementary Spanish 102.*

CFLS 201/202: Intermediate Spanish.

3 credits each

Allows the student to build on the knowledge and skills acquired in elementary Spanish, with emphasis placed on communication proficiency and the forging of a strong linguistic base. In addition to the variety of media utilized in elementary Spanish, a significant number of more authentic cultural artifacts (literary texts, newspaper articles, films) will be introduced throughout the semester. Classes meet three (3) hours per week and an additional hour per week of laboratory work is required. *Prerequisites: CFLS 102 or equivalent for Intermediate Spanish 201; CFLS 201 or equivalent for Intermediate Spanish 202.*

CFLS 303: Spanish Pronunciation and Phonetics.

3 credits

This course treats the proper pronunciation of Spanish and the perfecting of a near-native Spanish diction through the aid of phonetic transcription and authentic Spanish videos and audio texts. *Prerequisite: CFLS 202.*

CFLS 304: Spanish Conversation.

3 credits

This course deals with improving listening comprehension and oral expression by forcing the student to enhance his/her vocabulary through copious readings, viewing videos and discussing cultural topics. Emphasis will also be placed on writing. *Prerequisite: CFLS 202.*

CFLS 307: Business Spanish.

3 credits

The course is designed to introduce students to basic business concepts while providing fundamental terminology and usage in Spanish. Students will acquire the rudiments of some functional areas of business, examine the protocol of business environments, read and analyze commercial texts. Sensitivity to and appreciation of cultural content and differences in the Hispanic business world are also integral parts of instruction. Conducted entirely in Spanish. *Prerequisite: CFLS 202.*

CFLS 308: Business Spanish.

3 credits

This course is a continuation of CFLS 307. It emphasizes the practical application of the concepts taught previously, practice in carrying out typical business transactions in Spanish, and writing business documents in Spanish. Translations and case analysis of the experiences of actual business entities in the Hispanic world are also integral parts of instruction. Conducted entirely in Spanish. *Prerequisites: CFLS 202 and/or CFLS 307.*

CFLS 315: Latin American Civilization.

3 credits

This course treats the geography, history, institutions, and cultural development of the Latin-American world. *Prerequisite: CFLS 304 or equivalent.*

CFLS 325/326: Survey of Peninsular Literature.

3 credits each

Study of the outstanding works of major authors and the major literary movements. The first half of this two-part series covers the Middle Ages to the Golden Age. The second half covers the seventeenth century to the present. *Prerequisite: CFLS 304 or equivalent.*

CFLS 327/328: Survey of Latin American Literature. **3 credits each**

Study of the representative works of Latin American literature, including Afro-Hispanic literature. The first half of this two-part series covers the pre-Hispanic, colonial and independence eras. The second half covers the postindependence period to the present. *Prerequisite: CFLS 304 or equivalent.*

CFLS 335: Intensive Readings. **3 credits**

Survey of grammar with emphasis on improving and reinforcing reading skills. *Prerequisite: CFLS 304 or approval of instructor.*

CFLS 336: Intensive Readings. **3 credits**

Continuation of CFLS 335, involving reading and analysis of increasingly difficult texts from different fields. *Prerequisite: CFLS 335 or approval of instructor.*

CFLS 351/352: Composition and Translation. **3 credits each**

This course treats advanced problems in grammar and syntax, written exercises, and free composition. Features instruction in writing different genres and modifying writing style to accommodate specific audiences, techniques for promoting cultural/global awareness. Includes instruction in stylistic features of writing that distinguish Spanish from English. Conducted in Spanish. *Prerequisite: CFLS 304 or 335.*

CFLS 353: Spanish Literature of the Middle Ages. **3 credits**

Introduction to the Spanish people through their literature of the twelfth, thirteenth, and fourteenth centuries. The selections studied illustrate national traits, or major facets of the Spanish people. Through reading these works, students become better acquainted with the evolution of Spanish literature and the people.

CFLS 354: Literature of the Golden Age. **3 credits**

Analysis of conditions, which produced the Golden Age, with emphasis on the life and thought of Cervantes. Readings from the *Quixote* and *Novelas Ejemplares*.

CFLS 391/392: Advanced Spanish Grammar and Composition. **3 credits each**

Instruction in advanced grammatical problems and stylistics, emphasizing the mastery of the use of nouns, pronouns, adjectives, adverbs, prepositions, and conjunctions. Also includes instruction in the formation of simple and complex sentence structures. Conducted in Spanish. *Prerequisite: CFLS 202 or equivalent.*

CFLS 411: Latin American Literature. **3 credits**

Main trends of Spanish-American literature from the colonial to the contemporary period. Includes lectures, commentaries, and class discussion. *Prerequisite: CFLS 315.*

CFLS 415: Survey of Peninsular Civilization. **3 credits**

This course treats the history of Spain from its origin to the present. It will delve into the social and political institutions and explore their impact on contemporary Spanish society. It will also provide a cursory view of artistic—architectural, musical and literary—as well as philosophical movements throughout the Ages. Conducted in Spanish. *Prerequisite: CFLS 304 or equivalent.*

CFLS 416: Survey of Latin American Civilization. **3 credits**

Study of the political, economic, and cultural history of Latin America from pre-Columbian times to the present. Special emphasis is on the role of black Latin America in the development of Latin American civilization. *Prerequisite: CFLS 304 or equivalent.*

CFLS 419: Spanish Linguistics.**3 credits**

This is an introduction to the scientific study of language with focus on the analysis and description of language. Topics include language acquisition, writing systems, sound systems, meaning, and language change in society.

CFLS 422: Romanticism.**3 credits**

Literary investigation of the Romantic Movements in Spain. Topics include the theories regarding foreign influences on the development of Spanish Romanticism, versus indigenous Spanish Romanticism. Important precursors and major authors are studied.

CFLS 425: Modernism.**3 credits**

Intensive study of the major modernist writers of Latin America and selected modernist authors of Spain. Special focus on a comparative study of the parallel and divergent developments of modernism in Spain and Latin America, paying special attention to the contributions of Rubén Darío.

CFLS 440/441: Directed Study.**3 credits**

This course is designed to allow majors to do more in-depth study and investigation of special areas of interest or to improve their language proficiency. The student works under the close supervision of a professor who will prescribe a plan of action (which must be approved by the department chair in advance) to be followed. Student must be able to work independently on the Internet.

CFLS 447/448: Afro-Hispanic Literature.**3 credits**

This is an historical and cultural overview of the African Diaspora in Latin America, with special emphasis on the development of the Afro-Hispanic literary canon. A variety of literary forms will be treated and will include poetry, the novel, short stories, critical essays and other narrative materials. There will also be an articulation around three components: slavery, negrista and neo-negrista movements, and will allow students to discuss the question of the Black Diaspora and the literary treatment of race and identity and other key concepts. *Prerequisite: CFLS 304 or approval of instructor. (Recommended for students interested in studying abroad in Latin America)*

CFLS 461: Explicación de Textos.**3 credits**

This is an in-depth course in literary analysis that aims to prepare students for close textual reading and writing. It treats detailed critical analysis of selected passages with references to biographical elements, sources of origins, literary meaning, authenticity, and aesthetic qualities. Students produce oral and written reports in Spanish. Conducted in Spanish. *Prerequisite: CFLS 351 or 391.*

CFLS 480: Senior Conference in Spanish.**3 credits**

This is a final-year directed independent study designed to explore and remedy specific areas of weakness of prospective graduates. Different assessment tools will be used to enhance the students' content knowledge and productive skills in the target language to meet both the University and ACTFL standards.

CFLS 484/485: Travel Study Seminar.**3 credits each**

Travel and independent study in a foreign country under the guidance of responsible faculty members. Strongly recommended for majors and minors.

SPEECH COMMUNICATION COURSE DESCRIPTIONS

CSTA 101: Fundamentals of Speech.

3 credits

Introduces students to fundamental principles of effective oral communication as it relates to the professional world, focusing on audience analysis, interpersonal skills, effective listening techniques, and the preparation and delivery of oral presentations. All semesters.

CSTA 200: Oral and Written Presentation Skills.

3 credits

Designed to integrate oral and written communication skills. Emphasis is on principles of logic, organization of data, establishment of personal style, principles of research and investigation of purposes of various techniques of expression. *Prerequisites: CSTA 101; CENG 105 and 106.* First Semester.

CSTA 201: Voice and Diction.

3 credits

Emphasis is on speech and vocal analysis by using the International Phonetic Alphabet (IPA). Introduces the student to techniques for speech improvement. All semesters.

CSTA 211: Communication Theory and Rhetoric.

3 credits

Establishes theoretical frameworks to examine communication in interpersonal, small group, mass communication, and organizational communication contexts. Students will apply knowledge of theoretical concepts to facilitate understanding of the communication process and communication phenomenon. *Prerequisite: CSTA 201.* Second semester.

CSTA 213: Public Address.

3 credits

Advanced course; offers experience in the composition, delivery, and criticism of public speeches. *Prerequisite: CSTA 101; Permission.* Second Semester.

CSTA-H 218: Concepts in Human Communication.

3 credits

Explores communication theory and the group learning process. Incorporates theories from nonverbal communication, small group communication, persuasion, attitude study, and public speaking. Satisfies General Education core requirement for speech for honors program. *Prerequisite: Instructor's permission.* Either semester.

CSTA 301: The Rhetoric of Persuasion.

3 credits

Concentrates on analysis and understanding of the art of persuasion with applications of various theories of persuasion to the interpersonal communication process. *Prerequisite: CSTA 101; Permission.* First semester.

CSTA 302: Speech for the Classroom Teacher.

3 credits

Advanced course in the principles of oral communication with emphasis on the development of skills for effective organization and oral presentation of instructional materials. *Permission.* First semester.

CSTA 303: Argumentation and Debate.

3 credits

Introduction to theories and practices of formal public debate. *Prerequisite: CSTA 213, CSTA 200 and 201.* First Semester.

CSTA 304: Business and Professional Speech.

3 credits

Examination of theories and techniques of effective speaking and listening, interviewing, group discussions, reporting in conferences and meetings; and business speeches to inform and persuade.

Prerequisites: CSTA 101, CSTA 200; CSTA 201 and CSTA 213 for majors in speech communication; CSTA-C 101 and permission of the instructor for other concentration areas. All semesters.

CSTA 305: Interpersonal Communication. 3 credits

Study of the psychology of the communication process. Students become familiar with ways of intentionally communicating ideas to others; processes for interpreting motives of speakers; environmental or cultural conditions influencing communication; and ways of functioning in a group, as either group leader or member. First semester.

CSTA 306: Speech for Radio/Stage/TV/Film. 3 credits

Study of speaking techniques for the broadcast media and the performing arts, with emphasis on voice quality, flexibility, projection, articulation, and standards of good diction. *Prerequisites: CSTA101, CSTA C200 & CSTA C201.* Either semester.

CSTA 307: Special Topics. 3 credits

Designed to investigate issues and topics in speech communication and theater arts, and or related fields. May be repeated up to six hours. *Prerequisite: Junior or Senior Status; Permission.* Either semester.

CSTA 311: African-American Communication. 3 credits

Interdisciplinary approach to the study of communication systems used by African-Americans. Course examines the relationships that exist among language, culture, politics and economics. *Prerequisites: CSTA 101; CSTA 200 & CSTA 201.* First semester.

CSTA 402: Intercultural Communication. 3 credits

Designed to examine the role of communication in the creation and transmission of cultural consciousness, knowledge, tradition, and practice. First semester.

CSTA 404: Organizational Communication. 3 credits

Introduces students to the field of organizational communication and theories that have influenced its development as an approach to studying communication concepts. Course explores topics such as organizational culture and climate, superior-subordinate communication, leadership, conflict management, and group decision-making processes. Either semester.

CSTA 489: Internship. 3 credits

Offers students an opportunity to work part-time in professional facilities, with emphasis on learning overall business structure and development toward entry level, decision-making positions. *Prerequisites: junior or senior status and permission of the instructor.* Either semester.

CSTA 490: Speech Communication and Theater Arts Seminar. 3 credits

Provides students with opportunity to apply theories and techniques to practical experiences in their areas of concentration. It is a skill seminar for graduating seniors. Research projects should reflect the career or academic interests of the students. *Prerequisite: Senior status.* Either semester.

THEATER ARTS COURSE DESCRIPTIONS

CSTA 103: Fundamentals of Theater and Dance Movement.

1 credit

Study of the basic principles and forms of movement for dance and theater. Second semester.

CSTA 251: Oral Interpretation.

3 credits

Study and presentation of poetry, prose, drama and various literary forms with emphasis on voice and diction, imagery, phrasing, and characterization necessary to interpret text. *Prerequisite: CSTA 201.* First semester.

CSTA 252: Theater Appreciation.

3 credits

Course examines how theater functions as an art form through the exploration of the interrelationships of the audience, performer and space. Designed to study the nature of the theater experience by analyzing principles and practices that govern contemporary theater. Attendance at several professional theatrical performances may be required. Either semester.

CSTA 254: Acting I.

3 credits

Provides fundamentals of techniques of acting, character analysis, creative pantomime, mime, voice and diction. Students participate in lecture/laboratory sessions and rehearsals when in performance. *Prerequisite CSTA 201.* First semester.

CSTA 255: Stagecraft.

3 credits

Survey of the working knowledge of the basic materials, processes, and equipment for the fabrication, assembly, painting, rigging, and installation of contemporary stage scenery and properties. First semester.

CSTA 321: Lighting and Design.

3 credits

Introduction to theories, techniques and art of the stage electrician and lighting designer. *Prerequisite: CSTA 255.* Either semester.

CSTA 351: Development of Drama I.

3 credits

Study of the origins and development of drama through the survey of principal plays, playwrights, and theater arts through the ages. Encourages and aids students in developing appreciation for drama and theater as art forms and as factors in the changing civilizations of the world. *Prerequisite: CSTA 251.* First semester.

CSTA 352: Development of Drama II.

3 credits

Continuation of CSTA 351. *Prerequisite: CSTA 351.* Second semester.

CSTA 353: Play Production Methods.

3 credits

Approach to understanding the fundamental principles of preparing a play for public presentation. First semester.

CSTA 354: Acting II.

3 credits

Advanced study of acting techniques required to perform plays written in verse, traditional and nontraditional prose. Students will examine acting as a craft, through selected materials and a critical study of styles and techniques. *Prerequisite: CSTA 254.* Second semester.

CSTA 410: Costume Design. **3 credits**
Study of the costume designer's role in the design process that is involved in creating effective costumes for the contemporary stage. *Prerequisite: Junior/Senior status.* Either semester.

CSTA 452: Theater Arts Management. **3 credits**
Study of the theatrical producing and managing in contemporary American theater. Providing historical background and current practice, methods used in professional managerial systems. *Prerequisites: Senior standing and permission of instructor.* Second semester

CSTA 453: Directing: Play and Script Analysis. **3 credits**
Advanced analysis and directing of plays and scripts, including various directing techniques and theories. Students must select an approved, one-act play or short script, prepare a prompt book, and direct for public performance. *Prerequisites: CSTA 352, CSTA 353, and CSTA 354.* Second semester.

CSTA 455: Entertainment Law. **3 credits**
Course assists students in recognizing and examining issues and pitfalls, which affect the client. Explores business management issues and legal principles of agencies, partnerships, contract law, labor law, and libel. *Prerequisite: Senior status.* Both semesters.

CSTA 456: African-American Theater. **3 credits**
Study of plays, playwrights and contributions of African-Americans to the theater. First semester.

CSTA 482: Directed Study. **3 credits**
Theater arts majors, in consultation with an instructor, develop specialized research projects on topics of interest, and critically examine theater-and communication-related issues. *Prerequisites: Junior or senior status and permission of the instructor.* Either semester.

CSTA 489: Internship. **3 credits**
Offers students an opportunity to work part-time in professional facilities. Emphasis is on learning overall business structure and development toward entry-level, decision-making positions. *Prerequisites: junior or senior status and permission of the instructor.* Either semester.

CSTA 490: Speech Communication and Theater Arts Seminar. **3 credits**
Application of theories and techniques to practical experiences in the student's area of concentration. Research projects should reflect the academic and career interest of the student. *Prerequisites: Senior standing.* Either semester