CRJU 3420  Criminal Profiling and Victimology
CRJU 3520  Economic Crime Law and Investigation

Area H:  Senior Year Course Requirements

Required:  
CRJU 4126  Institutional Treatment of Criminal Offenders  
CRJU 4801  Restorative Justice  
CRJU 4999  Criminal Justice Senior Capstone

Electives – Choice of 21 hours from the following courses:  21
CRJU 4101  Technical Writing in Criminal Justice  
CRJU 4125  Community Based Corrections  
CRJU 4305  Cybercrime  
CRJU 4401  Police Systems in the United States  
CRJU 4426  Civil Liberties  
CRJU 4600  Ideological Violence and Law Enforcement  
CRJU 4701  Comparative Criminal Justice Systems  
CRJU 4900  Law Enforcement Initiatives  
CRJU 4901  Criminal Justice Internship 1  
CRJU 4902  Criminal Justice Internship 2

Subtotal Areas G – H:  
60 semester hours
TOTAL REQUIRED PROGRAM HOURS

Note: Taking courses out of sequence may delay the semester in which you graduate.

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COURSE DESCRIPTIONS

Understanding Course Descriptions

Each course is assigned a number according to the following system. Courses numbered below 1000, such as READ 0099, ENGL 0099 and MATH 0097, are for institutional credit only. They do not count toward meeting the College’s degree requirements, nor are they transferable for degree credit at other colleges in the University System of Georgia. Courses numbered 1000-1149 and 2000-2499 are
designed primarily for credit in transfer programs, but are also acceptable in a number of career programs. Courses numbered 1500-1999 and 2500-2999 are designed primarily for career programs and are unlikely to be accepted as transfer courses.

Opposite each course title, at the right side of the page, are three code numbers, such as 2-1-3. The first number indicates the number of regular lecture hours for the course per week; the second number indicates the number of laboratory hours per week; and the third number indicates the hours of credit awarded for the successful completion of the course. The code numbers 2-1-3 indicate that the course has two regular lecture hours per week, has one hour of laboratory work, and awards three semester hours of credit.

The College reserves the right to cancel courses for which there is insufficient enrollment.

ACCOUNTING (DIVISION OF BUSINESS AND COMPUTER SCIENCE)

ACCT 2101 Principles of Accounting I 3-0-3
This course is a study of the underlying theory and application of financial accounting concepts. The approach focuses from external financial reporting perspective. The course incorporates real world applications, including on an actual financial statements. Specifically, the course concentrates on the planning, performing, and evaluating aspects of the accounting operating processes and includes translating business activities into accounting information and solving operating problems using information from the accounting system. Prerequisite: Exit or exemption from Learning Support, CISM 2101, MATH 1111, MATH 1112 or MATH 1113 with a grade of ‘C’ or better.

ACCT 2102 Principles of Accounting II 3-0-3
This course is a continuation of financial accounting concepts and basic managerial accounting concepts. The course focuses on business processes and examines business activities from both an external, financial reporting perspective and an internal, managerial accounting decision making perspective. It incorporates real world applications to reinforce the relevance of topics to real business situations and to promote student interest. Specifically, the course concentrates on debt and equity financing, financial statement analysis, cost allocation and
control, performance evolution, and budgeting; and how they relate to business organization and its strategy. Prerequisite: ACCT 2101 with a grade of "C" or above.

**ACCT 2210 Computerized Acct. for Small Business** 3-0-3
This course instructs the student in the use of a number of accounting software packages, including General Ledger, Accounts Payable, Accounts Receivable, Payroll, Inventory and Income Taxes. Students also develop applications using electronic spreadsheets. Prerequisite: ACCT 2102.

**ACCT 2225 Federal Income Taxation I** 3-0-3
This course is an introduction to Federal income tax fundamentals as they apply to individuals, partnerships, corporations and other forms of business organizations. Prerequisite: ACCT 2102.

**ACCT 2226 Federal Income Taxation II** 3-0-3
This course provides in-depth treatment of taxation as it applies to partnerships and corporations. Prerequisite: ACCT 2225.

**ACCT 2230 Intermediate Accounting I** 3-0-3
This course examines the generally accepted accounting principles for assets and liabilities along with related revenue and expense implications. The authoritative literature is also introduced and alternative concepts are discussed. Prerequisite: ACCT 2102.

**ACCT 2231 Intermediate Accounting II** 3-0-3
This course examines the generally accepted accounting principles for the owner’s equity in business organizations, pensions, leases, income taxes, accounting changes and the effects of changing price levels. The authoritative literature is also discussed, along with alternative concepts. Prerequisite: ACCT 2230.

**ACCT 2233 Cost/Managerial Accounting** 3-0-3
This course is an introduction to cost accounting principles and practices. The course also covers approaches to providing accounting information for effective management of profit and non-profit organizations. Prerequisite: ACCT 2102.

**ACCT 2234 Auditing** 3-0-3
This course is the study of the principles of internal and independent auditing, the criteria for establishment of internal controls, and the effect of these controls on the audit and reporting process. Prerequisite: ACCT 2230.
AMSC INSTITUTIONAL REQUIREMENT (DIVISION OF SOCIAL SCIENCES)

AMIR 1001 Thinking, Learning, and Communicating in Contemporary Society 4-0-4
This course cultivates habits that strengthen critical thinking, reading, and speaking, and fosters an increased understanding of the individual’s role and responsibility in the learning process. Using interdisciplinary themes and various instructional technologies, students examine and convey the logic of their thinking in writing and oral form. Prerequisite: Exit or exemption from Learning Support Reading and English.

ANTHROPOLOGY (DIVISION OF SOCIAL SCIENCES)

ANTH 1102 Introduction to Anthropology 3-0-3
An introduction to the discipline of anthropology, this course examines the origin and the physical, behavioral, social, and cultural development of human beings. Prerequisite: Exit or exemption from Learning Support Reading and English.

ANTH 2105 Prehistoric Peoples and Cultures 3-0-3
Emphasizing culture, ethnicity and race, this course traces the emergence of major civilizations in Africa, Asia, Europe and the Americas from the emergence of Homo sapiens to the advent of written history. Prerequisite: Exit or exemption from Learning Support Reading.

ART (DIVISION OF HUMANITIES AND FINE ARTS)

ARHS 2201 Art History Survey 3-0-3
This course presents the history of Western art from prehistoric times to the Renaissance through the study of paintings, sculpture, architecture, and their relationship to changing cultural backgrounds. No prerequisite.

ARTS 1010 Drawing I 1-2-3
Drawing I provides an introduction to the techniques, materials, and principles of drawing. This course develops basic drawing skills and understanding of visual language through studio instruction/lecture. Concepts introduced are applied to still life, landscape, and the figure through experimentation with pencil, charcoal, ink wash, and color media. Additional studio hours are required. No prerequisite.

ARTS 1011 Drawing II 1-2-3
This course is a continuation of Drawing I. Prerequisite: ARTS 1010.
ARTS 1020 Two-Dimensional Design  1-2-3
This course explores concepts of two-dimensional design and color through projects in a variety of media. Limited computer experiences are included. An oral presentation is required with the final visual presentation. Additional studio hours are required. No prerequisite.

ARTS 1030 Three-Dimensional Design  1-2-3
This course investigates three-dimensional forms and space through the use of the elements and principles of design, using various materials and methods. Additional studio hours are required. No prerequisite.

ARTS 1100 Art Appreciation  3-0-3
A foundation for appreciation of art is presented through the study of art terminology, art forms, materials, and techniques. This course surveys the history of art through painting, sculpture and architecture from prehistoric times through the present. Lectures, slides, films, discussions, field trips, and studio activities are included as appropriate. No prerequisite.

ARTS 2010 Art for Early Childhood  3-0-3
This course is designed for students who are pursuing programs of study in Early Childhood Development Teacher Education. The course focuses on methods and techniques used to encourage creative thinking. Effective use of materials such as poster paint, crayons, collage, watercolors, etc. is explored. No prerequisite.

ARTS 2201 Studies in the Fine Arts II  1-0-1
This course provides an interdisciplinary study of aspects of the fine arts, including but not limited to, investigations of unique foundations in the visual arts, literary arts, and performance arts. Prerequisite: Permission of the instructor.

ARTS 2210 Arts and Crafts  1-2-3
This course explores problems in the design and production of functional crafts. Students experiment with a variety of materials, including but not limited to, yarn, paper, paper-mache and ink. Additional studio hours are required. No prerequisite.

ARTS 2211 The Creative Process  3-0-3
This course provides an overview of the concepts and theories of the creative process through investigations beyond traditional problem-solving approaches. Applications across disciplines are presented. No prerequisite.
ARTS 2220 Introduction to Printmaking 1-2-3
This course introduces various relief printmaking techniques, including monoprints, styrofoam prints, linocuts, and collagraphs. Additional studio hours are required. No prerequisite.

ARTS 2230 Introduction to Ceramics 1-2-3
This course explores problems in design and production of functional and non-functional ceramic works. Hand-building techniques and experience on the potter’s wheel are included. Additional studio hours are required. No prerequisite.

BIOLOGY (DIVISION OF SCIENCE, MATHEMATICS AND HEALTH PROFESSIONS)

BIOL 1101 General Biology I 3-0-3
This is a general course designed to communicate to the non-science major a meaningful understanding of the principles of biology with broad application to other fields and to everyday life. Topics include the physical and chemical basis of life, cellular structure and function, molecular genetics, human genetics, the diversity of life and ecology. Prerequisite: Exit or exemption from Learning Support Reading and English or permission of instructor.

*Satisfies College Preparatory Curriculum (CPC) requirement in Natural Science when cross-referenced as BIOL 1100 and taken with BLAB 1100, the lab portion of this course. BIOL 1101 cannot be repeated for credit if taken to satisfy a CPC requirement.

BLAB 1101 General Biology I Lab 0-2-1
This is the laboratory component of BIOL 1101, designed to provide the non-science major with a greater knowledge and understanding of experimental processes employed in the biological sciences, primarily through a hands-on approach. Prerequisite or corequisite: BIOL 1101 or permission of instructor.

*Satisfies College Preparatory Curriculum (CPC) requirements in Natural Science when cross-referenced as BLAB 1100 and taken with BIOL 1100, the lecture portion of this course. BIOL 1101 cannot be repeated for credit if taken to satisfy a CPC requirement.

BIOL 1102 General Biology II 3-0-3
This course is a continuation of Biology 1101 with emphasis on human biology. Topics include homeostasis, hormonal regulation of metabolism, organ systems of the human body and plant structure and function. Prerequisite: Exit or exemption from Learning Support Reading and English or permission of instructor.
*Satisfies College Preparatory Curriculum (CPC) requirement in Natural Science when cross-referenced as BIOL 1100 and taken with BLAB 1100, the lab portion of this course. BIOL 1102 cannot be repeated for credit if taken to satisfy a CPC requirement.

**BLAB 1102 General Biology II Lab**
0-2-1
The laboratory component of BIOL 1102 emphasizes the study of the human body. Prerequisite or corequisite: BIOL 1102 or permission of instructor.

*Satisfies College Preparatory Curriculum (CPC) requirements in Natural Science when cross-referenced as BLAB 1100 and taken with BIOL 1100, the lecture portion of this course. BIOL 1102 cannot be repeated for credit if taken to satisfy a CPC requirement.

**BIOL 1104 Introduction to Environmental Science**
3-0-3
This course provides an introduction to environmental science. It serves an area D elective for both science and non-science majors. Topics include, but are not limited to biodiversity, evolution, animal behavior, natural resources, alternative energy sources, conservation and preservation of resources, terrestrial and aquatic biomes, pollution, globalization and population dynamics as well as ecology. Prerequisite: Exit or exemption from Learning Support Mathematics, Reading and English.

**BIOL 1107 Principles of Biology I**
3-0-3
This is an introduction to general biological principles, including the physical and chemical nature of protoplasm, biological structure and function, transport of materials, energy transformations, molecular and cellular biology and genetics. This course is primarily intended for science, computer science, mathematics and allied health majors. Prerequisite: Exit or exemption from Learning Support Mathematics, Reading and English.

**BLAB 1107 Principles of Biology Lab I**
0-3-1
This course is the laboratory component of BIOL 1107. Topics include microscopy, biochemistry, cytology and genetics. Prerequisite or corequisite: BIOL 1107 or permission of the instructor.

**BIOL 1108 Principles of Biology II**
3-0-3
This course, a continuation of BIOL 1107, includes the following topics: plant structure and function, developmental hormones and organ systems of the human body. Prerequisite: BIOL 1107/BLAB 1107 or permission of the instructor.

**BLAB 1108 Principles of Biology Lab II**
0-3-1
This is the laboratory component of BIOL 1108. Topics include plant anatomy and physiology, animal tissues and comparative vertebrate anatomy.
Prerequisite: BIOL 1107/BLAB 1107. Corequisite: BIOL 1108 or permission of the instructor.

**BIOL 1109 Principles of Biology III** 3-0-3
This course, a continuation of BIOL 1107, provides an introduction to environmental studies. Topics include classification, biodiversity, evolution, animal behavior and ecology. Prerequisite: BIOL 1107/BLAB 1107 or permission of the instructor.

**BLAB 1109 Principles of Biology Lab III** 0-3-1
This is the laboratory component of BIOL 1109. Topics include biodiversity, evolution, ethology and ecology. Prerequisites: BIOL 1107/BLAB 1107. Corequisite: BIOL 1109.

**BIOL 2203 Plant Science** 3-0-3
This course is a study of plant life with emphasis on structure, functions, identification, economic importance, plant care, gardening and ecology. Prerequisite: Exit or exemption from Learning Support Reading, Mathematics and English. (Students who have not had a vigorous background in Biology are urged to take BIOL 1108/BLAB 1108 or BIOL 1102/BLAB 1102 before registering for this course.)

**BIOL 2215 Fundamentals of Microbiology** 3-0-3
This course provides a survey of common groups of microorganisms including classification, requirements for growth, host-parasite relationships, pathogenicity, morphology and physiology. Prerequisite: Exit or exemption from Learning Support Reading, Mathematics, and English. (Students who have not had a vigorous background in Biology are urged to take BIOL 1107/BLAB 1107 before registering for this course.)

**BLAB 2215 Fundamentals of Microbiology Lab** 0-3-1
This course is the laboratory component of BIOL 2215. Students learn techniques used to isolate, stain and identify microorganisms based on their morphological and biochemical characteristics. Students are required to demonstrate mastery of these techniques by isolating and identifying unknown bacteria from mixed cultures. Prerequisite or corequisite: BIOL 2215.

**BIOL 2225 Invertebrate Zoology** 3-0-3
This course is an introduction to anatomy, physiology, and evolution of major invertebrate groups. Prerequisite(s): Exit or exemption from Learning Support Reading, English, and Mathematics; BIOL1107; BLAB 1107 or permission of the instructor; Co-requisite(s): BLAB 2225

**BLAB 2225 Invertebrate Zoology Lab** 0-3-1
This course is the laboratory component of BIOL 2225. Topics include surveys of the invertebrate species, macroscopic and microscopic identification of structural
elements and correlation with function. Prerequisite(s): Exit or exemption from Learning Support Reading, English, and Mathematics; Prerequisite or corequisite: BIOL 2225.

**BIOL 2241 Human Anatomy and Physiology I**  
3-0-3  
This course presents the fundamentals of structure and function in the human organism, cell ultrastructure, specialization and metabolism, with an introduction to systems physiology. Prerequisite: Exit or exemption from Learning Support Reading, English, and Mathematics. (Students with a weak background in biology are urged to complete BIOL 1107;)

**BLAB 2241 Human Anatomy and Physiology Lab I**  
0-3-1  
This course is the laboratory component of BIOL 2241 designed to provide laboratory exercises that support the systematic presentation of the lecture. Topics include medical terminology, cells, tissues, skeletal, muscular and nervous systems. Prerequisite or corequisite: BIOL 2241.

**BIOL 2242 Human Anatomy and Physiology II**  
3-0-3  
This course is a continuation of BIOL 2241 including a study of the organs systems associated with integration and control, exchange and transport, the utilization of nutrient material, and an introduction to human reproduction and development. Emphasis is placed on the integration of various systems in performance of specific functions of the entire organism. Prerequisite: BIOL 2241; BLAB 2241.

**BLAB 2242 Human Anatomy and Physiology Lab II**  
0-3-1  
This course is the laboratory component of BIOL 2242. It is designed to provide interactive laboratory exercises that support the systematic presentation of the lecture. Topics include nervous system, special senses, circulatory system, respiratory system, digestive system, urinary system, acid-base balance and the reproductive system. Prerequisite or corequisite: BIOL 2242.

**BIOL 2245 Intro. to Undergrad. Research: Instrumentation**  
1-2-2  
This course is a study of the instruments and techniques commonly used in science laboratories. Instrumentation and techniques to be studied include but are not limited to: spectroscopy, chromatography, electrophoresis, pH determination, DNA biotechnology and solution preparation and data collection with remote sensing equipment and techniques. Prerequisite: A grade of "C" or better in a 200-level biology or chemistry course.

**BIOL 2246 Topics in Science**  
1-2-2  
This course provides students with opportunities to explore current topics and problems in terms of underlying principles of biology, chemistry and physics. This course is comparative and has an interdisciplinary flavor in that the socioeconomic, cultural, ethical and political aspects of such topics as genetic engineering, environmental chemistry, laser technology, and earth systems
science are discussed. Prerequisite: A grade of "C" or better in an introductory biology or chemistry course or permission of the instructor.

**BIOL 3003 Marine Biology** 3-0-3
This course examines the diversity of marine organisms from the smallest worms to predatory sharks to the largest whales, from the deepest trench to the shore. Students will explore the special adaptations that allow organisms to thrive and create the complex web of ocean life. This course involves a field trip to the Georgia aquarium and a final project that incorporates a student’s interests, majors, and cultural background with course material. Prerequisite(s): Exit or exemption from Learning Support Reading, English, and Mathematics; BIOL1108; BLAB 1108

**BIOL 3007 Embryology** 4-0-4
This course provides a contemporary approach to the study of Embryology. Classical descriptions of early embryonic development are supplemented with modern findings in genetics, biochemistry and molecular biology to give the student a solid basis for understanding the mechanisms of human development, growth and differentiation. This course will also focus on the anatomy of vertebrate embryogenesis with specific emphasis on humans. Topics include fertilization, implantation, gastrulation, neurulation and organogenesis of a variety of structures. Labs will demonstrate normal development using whole mount specimen and microscope slides, as well as abnormal development through a selection of mutants. Students participate by identifying abnormal development and researching possible causes. Additional lab assignments will be based on readings that are designed to expand student’s appreciation of the larger field of embryology through examination of its history, ethical implications, and the contributions of model organisms. Prerequisite(s): Exit or exemption from Learning Support Reading, English, and Mathematics; BIOL 1108; BLAB 1108; BIOL 4201; BIOL 4000

**BIOL 3114 Principles of Immunology** 3-0-3
Is an upper level course designed to help students build a solid foundation in basic concepts of immunology including organization, function and regulation of the immune system. Students will be trained to build up background for future assimilation and processing of ever growing mass of new information, to read and understand current literature, to write a scientific report and to attend seminars on topics related to immunology wherever available. Prerequisite(s): Exit or exemption from Learning Support Reading, English, and Mathematics; BIOL 3011

**BIOL 3009 Comparative Anatomy** 3-0-3
A study of the similarities of anatomy and phylogenetic relationships of major vertebrate groups. Specifically, we will compare phylogeny, ontogeny (development) and morphology in groups ranging from protochordates to highly derived vertebrates. Structure of anatomical features, emphasizing how anatomy relates to function, including comparisons of specialized features in organisms adapted to different conditions. Prerequisite(s): Exit or exemption from Learning Support Reading, English, and Mathematics; BIOL 1108; BLAB 1108; Co-Requisite BLAB 3009

**BLAB 3009 Comparative Anatomy Lab** 0-3-1
The laboratories will involve detailed dissection of the lamprey eel (Petromyzon), the dogfish shark (Squalus), the mud puppy (Necturus), and the cat (Felis cattus). Prerequisite(s): Exit or exemption from Learning Support Reading, English, and Mathematics; BIOL 1108; BLAB 1108; Co-requisite: BIOL 3009.

**BIOL 3011 Principles of Microbiology** 0-3-1
This course serves as a rigorous examination of microorganisms including their growth patterns, morphology, and pathogenicity. This course includes a laboratory component covering areas such as structure, nutrition, biochemistry, genetics, and growth of microorganisms. Prerequisite(s): Exit or exemption from Learning Support Reading, English, and Mathematics. Co-requisite: BIOL 3011

**BIOL 3111 Field Ecology** 4-0-4
Field Ecology is a travel experience course to study the effects of glaciation, soils and climate on plant and animal communities. Indicator species, stability, and succession of communities are compared. Identification of communities, vegetation, and animals is required, with an emphasis on field study. A laboratory component is include with this course, providing the student with the laboratory skills to identify and examine a range of species within varied environments. Prerequisite(s): Exit or exemption from Learning Support Reading, English, and Mathematics.

**BIOL 3113 Nutrition** 3-0-3
Nutrition Science is a course designed to focus on the practical application of scientific concepts. It incorporates the science of the production, processing, evaluation, and utilization of foods and relates scientific concepts and processes to practical applications in nutrition. Prerequisite(s): Exit or exemption from Learning Support Reading, English, and Mathematics; Biol 1107 or Biol 2241.

**BIOL 4000 Molecular Biology** 4-0-4
This course defines the molecules in cells, and describes the major molecular processes that lie behind most biological events (replication of DNA, transcription and processing of RNA, translation of genetic information into proteins), and emphasizes the techniques and experiments that lead to this information. Prerequisite(s): Exit or exemption from Learning Support Reading, English, and Mathematics; CHEM/CLAB 2242; BIOL/BLAB 1108, and BIOL 4201.

**BIOL 3117 Virology** 3-0-3
This course covers the advanced study of viruses with regard to the basic, biochemical, molecular, epidemiological, clinical, and biotechnological aspects of animal viruses primarily and bacteriophage, plant viruses, viroids, prions, and unconventional agents secondarily. Specific areas of virology, including viral structure and assembly, viral replication, viral recombination and evolution, virus-host interactions, viral transformation, gene therapy, antiviral drugs, and vaccines, are presented. Prerequisite(s): Exit or exemption from Learning Support Reading, English, and Mathematics; BIOL 3011

**BIOL 3205 Biostatistics** 3-0-3
This course introduces statistical concepts and analytical methods as applied to data encountered in biological and biomedical sciences. It emphasizes the basic concepts of experimental design, quantitative analysis of data, and statistical inferences. The course provides students a foundation to evaluate information critically to support research objectives and product claims and a better understanding of statistical design of experimental trials for biological products/devices. Prerequisite(s): Exit or exemption from Learning Support Reading, English, and Mathematics; MATH 1113

**BIOL 3245 Introduction to Research: Instrumentation** 3-0-3
This is an introductory course to research processes and design. Also included is a survey of the instruments and techniques commonly used in applied science laboratories. Prerequisite(s): Exit or exemption from Learning Support Reading, English, and Mathematics; A grade of "C" or better in a 2000-level biology or chemistry course

**BIOL 4010 Evolution** 3-0-3
Evolution is the central concept in biology. This course examines evolution in historical and cultural contexts. This course aims to understand the major issues in the history and current status of evolutionary biology and explore the implications of evolution for culture. Issues range from controversies over mechanisms of evolution in natural populations to the conflict between creationists and evolutionists. Prerequisite(s): Exit or exemption from Learning Support Reading, English, and Mathematics; BIOL 4201
BIOL 4201  Cellular Biology  4-0-4
This course focuses on examining the essential features that constitute life in terms of the coordinative interactions of small and large molecules. Phenomena explored by students include the cell as common denominator, proteins as agents of specificity, metabolic pathways, cell transport, and the central dogma of molecular genetics and regulation of the flow of information. Prerequisite(s): Exit or exemption from Learning Support Reading, English, and Mathematics; BIOL 1108; BLAB 1108

BIOL 4203  Neurobiology  3-0-3
This course introduces students to the rapidly growing field of neuroscience, which is the study of the biology of the nervous system and its relationship to behavior and disease. The course covers topics ranging from neuronal structure and function, communication at the synapse, membrane receptors and intra- and intercellular signaling systems, to the gross organization of the brain and spinal cord, the processing of sensory information, the programming of motor responses, and higher functions such as learning, memory, cognition, and speech. While the course is introductory in nature, the level of instruction is rigorous and treats many of the topics in some depth. Prerequisite(s): Exit or exemption from Learning Support Reading, English, and Mathematics; BIOL1107; BLAB 1107; BIOL 1108; BLAB 1108

BIOL 4205  Biochemistry  3-0-3
The course surveys the basic principles of biochemistry and molecular biology, emphasizing broad understanding of chemical events in living systems in terms of metabolism and structure-function relationships of biologically important molecules. This course is suitable for pre-majors, for students interested in careers in medicine, dentistry, pharmacy, medical technology. Prerequisite(s): Exit or exemption from Learning Support Reading, English, and Mathematics; BIOL1107; BLAB1107; CHEM2242; CLAB 2242

BIOL 4207  Medical Microbiology  4-0-4
The fundamentals of microbial physiology, genetics and immunology are presented with important bacterial, viral, parasitic, and mycotic infections discussed from the standpoint of etiology, epidemiology, and pathogenesis and laboratory diagnosis. Participation in laboratory exercises and small group sessions is required and extends throughout the semester. The entire course must be completed to receive credit. Prerequisite(s): Exit or exemption from Learning Support Reading, English, and Mathematics; BIOL 3011

BIOL 4209  Biotechnology  4-0-4
The purpose of this course is to survey the methods and applications of biotechnology and to examine the consequences of developments in this area. This is an area of great public interest with a pressing need for informed debate. The course is organized by topic and covers many aspects of biotechnology, including those that relate to animals, microbes, human health, agriculture and the environment. This course involves a lab component to introduce the students to the various techniques in Biology. Prerequisite(s): Exit or exemption from Learning Support Reading, English, and Mathematics; BIOL 3011; BIOL 4000

**BIOL 4211 Principles of Genetics** 4-0-4

The course is designed to cover the basic principles of classical and molecular genetics. Model systems for genetic analysis such as Drosophila melanogaster, Neurospora crassa, and peas will be covered. The course covers a detailed description of the structure and function of nucleic acids. This includes, replication and regulation with emphasis on genetic diseases, mutations, and genetic engineering and its applications will be emphasized. Genetics Laboratory work covers Mendelian principles, isolation and characterization of the DNA, polytene chromosomes, karyotyping, Barr bodies, mutagenesis and tests used for detecting mutagens. Prerequisite(s): Exit or exemption from Learning Support Reading, English, and Mathematics; BIOL 1107; BLAB 1107; BIOL 1108; BLAB 1108; and MATH 1113

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**BUSINESS ADMINISTRATION (DIVISION OF BUSINESS AND COMPUTER SCIENCE)**

**BUSA 1101 Keyboard Mastery** 3-0-3

This course is designed to teach basic keyboarding using the microcomputer. Students are expected to acquire a set level of speed and accuracy using the touch-typing method in a self-paced setting. The course also covers numeric key padding and proper formatting for letters and various other documents. No prerequisite.

**BUSA 1105 Introduction to Business** 3-0-3

This course is an integrative study of the functional areas of business (finance, operations, marketing, human resources, etc.). No prerequisite.

**BUSA 1106 Introduction to Records Management** 3-0-3

This course surveys the records management field. Areas of particular concentration are records creation, forms, correspondence, reports, records maintenance, filing systems, storage equipment, vital records, records disposition, retention scheduling and records center operations. Prerequisite: Exit or exemption from Learning Support Reading and English.
BUSA 2102 Intermediate Keyboarding/Typewriting 3-0-3
This course enables students to correctly arrange and type various business forms, tables, manuscripts and letters in various business styles. Students will also be able to type with increased speed and accuracy. Prerequisite: BUSA 1101 or exemption examination.

BUSA 2103 Advanced Keyboarding/Typewriting 3-0-3
This course reviews problem skills with emphasis on special and statistical reports, accounting reports, and legal papers. Students also receive instructions in taking and typing employment tests. Prerequisite: BUSA 2102 or exemption examination.

BUSA 2105 Communicating in a Business Environment 3-0-3
This course emphasizes both interpersonal and organizational communications, including written and oral exercises appropriate to business practices. Prerequisite: Exit or exemption from Learning Support Reading.

BUSA 2106 The Environment of Business 3-0-3
This course is an introduction to the legal, regulatory, political, social, ethical, cultural, environmental and technological issues which form the context for business, including an overview of the impact of demographic diversity on organizations. Prerequisite: Exit or exemption from Learning Support.

BUSA 2111 Legal Typing 2-3-3
This course teaches the student to type with increased speed and accuracy. The student will be able to type various legal forms and documents from the following areas: contracts, automobile negligence, civil actions, partnerships, corporations, wills and probate, criminal actions, real estate and bankruptcy. This course is self-paced and is held in an open lab environment. Prerequisite: BUSA 2102 or exemption examination.

BUSA 2112 Medical and Insurance Typing 2-3-3
This course teaches the student to understand and to type appropriate forms for the following areas: Universal Health Insurance Claim Form, Blue Cross, Medicare, Medi-Medi, CHAMPUS, CHAMPVA, Unemployment Compensation, Worker’s Compensation and Dental Insurance. The student will also be able to code using the CPT/RVS codebooks. Prerequisite: BUSA 2102 or exemption examination.

BUSA 2115 Advanced Secretarial Techniques 2-3-3
This course will give the student the ability to recognize the areas in which he or she can function to relieve management from time-consuming details. The student will be able to make the best use of reference materials; use postal and shipping services; determine work priority schedules; plan meetings, conferences and travel arrangements; assist with collecting and developing various types of materials for reports. Prerequisite: BUSA 2102 or exemption examination.
BUSA 2117 Forms Management and Filing 3-0-3
This course covers the principles and practices of forms management and filing, including approval authority and cost justification; forms and procedure analysis and designs; standards for format and production; printing specifications; and controls and review. Prerequisites: Exit or exemption from Learning Support Reading and English; BUSA 1106 or permission of the instructor.

BUSA 2118 Accession and Disposal of Records 3-0-3
This course covers the principles and practices of records protection and disposition. Topics include acquisition, indexing, references, control, destruction, space conservation, accessibility, load consideration and site selection. Prerequisite: Exit or exemption from Learning Support Reading and English; BUSA 1106.

BUSA 2119 Micrographics 3-0-3
This course is designed to introduce students to the field of micrographics and show its relationship to records management. Students become familiar with microfilming, processing, duplicating, and displaying and reproducing equipment. Micrographics standards utilized in industry are reviewed in the course. Prerequisites: Exit or exemption from Learning Support Reading and English; BUSA 1106.

BUSA 2120 Legal Secretarialship 2-3-3
This course is designed to give students proficiency in general office procedures including telephone technique, postal services, work priority schedules, meeting plans and travel arrangements. The student will be able to keep client financial records and prepare them with little assistance (4 hours weekly). Prerequisite: Exit or exemption from Learning Support Reading and English.

BUSA 2122 Medical Office Procedures 2-3-3
This course will teach the student to handle patient reception, keep an appointment schedule, handle mail, use the telephone efficiently, properly maintain financial records for the medical office and take care of medical supplies and equipment. (4 hours weekly) Prerequisite: Exit or exemption from Learning Support Reading and English.

BUSA 2201 Principles of Management 3-0-3
This course deals with universal concepts of management applicable to all types of enterprises. Students are introduced to basic management philosophies and decision-making processes. Principles of management involving leadership styles, planning, organizing, supervision and control are covered. Prerequisite: Exit or exemption from Learning Support.

BUSA 2202 Management and Supervision 3-0-3
This course introduces the student to general management principles relevant to all types of business enterprises. Supervisory principles in human relations,
grievances, training, evaluations, promotions, quality control and management-employee relations are covered. Prerequisites: Exit or exemption from Learning Support; BUSA 2201.

**BUSA 2203 Personnel Management** 3-0-3
This course introduces students to the methods used in recruiting, selecting, and maintaining an efficient workforce. Topics include employment standards, training, health and safety, and employee services. Job evaluation, interviewing techniques, and application forms are also discussed. Prerequisites: Exit or exemption from Learning Support; BUSA 2201.

**BUSA 2204 Principles of Insurance** 3-0-3
This course provides a study of both life insurance and property-casualty insurance. Other topic areas include the theory of risk (both family and business), operation of the insurance business, and regulation of the insurance industry. Prerequisites: Exit or exemption from Learning Support; ACCT 2101; MATH 1111.

**BUSA 2205 Principles of Marketing** 3-0-3
This course is designed to provide the student with a basic understanding of the framework of the marketing process in product, price, channels of distribution and promotional activities. Prerequisite: Exit or exemption from Learning Support; ACCT 2101 with a grade of ‘C’ or better.

**BUSA 2206 Production Management and Evaluation** 3-0-3
This course provides the student with a general understanding of the organization of large-scale industrial organizations for efficient production methodology and evaluation of the production process to meet contracts, etc. Prerequisites: ACCT 2102; CISM 2101.

**BUSA 2209 Fundamentals of Business Finance** 3-0-3
This course is an introduction to the principles of financial management, including capital budgeting, the cost of capital, acquisition of funds and capital structure strategies for non-financial corporations. Prerequisite: ACCT 2102 with a grade of ‘C’ or better.

**BUSA 2210 Fundamentals of Entrepreneurship** 3-0-3
This course is an introduction to the practical and theoretical considerations involved in entrepreneurship. Course topics include the preparation of business plans, strategies for financing, market assessment, development and protection of business ideas, management and strategies for survival of new business ventures. Prerequisite: ACCT 2101.

**BUSA 2211 Small Business and Venture Management** 3-0-3
This course emphasizes operating and managing the small and new business venture. Topics include finance, financial performance, taxation, systematic
control of resources and business operations, personnel policies, marketing, organizational development, and preparing a comprehensive business plan. Prerequisites: ACCT 2101; BUSA 2201.

**BUSA 2212 Financing New Business Ventures** 3-0-3
This course is a study of successful techniques used to finance new business ventures: new startups, buyouts, and franchises including traditional and creative approaches. Prerequisites: ACCT 2102; BUSA 2209.

**BUSA 2213 Strategies for Entrepreneurship** 3-0-3
This covers the essentials of launching and establishing a business organization with emphasis on new start-ups, buyouts, and franchises. Case studies of successful businesses will be utilized to introduce students to various strategies. Prerequisite: BUSA 2210.

**BUSA 2214 Property Management** 3-0-3
This course is offered to those students who currently own or operate property complexes or who desire to do so. The objective of this course is to give the student a working knowledge of property complexes, property management, accounting, and sociological aspects of human habitation. Prerequisites: ACCT 2101; BUSA 2201 or permission of the instructor.

**BUSA 2215 Principles of Real Estate I** 3-0-3
This course is a survey of real estate covering the real estate market, contracts, ownership, deeds, real estate financing, appraising and development of subdivisions. Prerequisite: Exit or exemption from Learning Support Reading, English and Math.

**BUSA 2216 Principles of Real Estate II** 3-0-3
This course’s topics include financing of real estate, types of lenders, lending laws, real estates and financing, mathematics, settlements, procedures, document recording, appraising, land descriptions, brokerage office accounting and state and federal laws. Prerequisites: Exit or exemption from Learning Support Reading, English and Math; BUSA 2215.

**BUSA 2217 Housing Management I** 3-0-3
This course provides a basic introduction to the management of multi-family housing, particularly public and federally subsidized housing. The student will gain a basic understanding of various federal housing programs, the occupancy cycle and the landlord-tenant relationship. Students will also learn how to maintain the necessary plans, including a budget, which are part of efficient, well-organized housing management. Prerequisites: Exit or exemption from Learning Support Reading, English and Math; BUSA 2201.
BUSA 2218 Housing Management II 3-0-3
This course covers in greater detail some of the topics in Housing Management I. Students will learn to perform the management responsibilities related to the occupancy cycle, to work with tenants and staff, and to resolve grievances. Students will also gain a basic working knowledge of maintenance and repair. Prerequisite: BUSA 2217.

BUSA 2240 Directed Practicum I 1-5-3
This course gives students the opportunity to gain experience in an area of interest related to their major. It is restricted to career program majors of advanced-level standing. Prerequisite: Permission of the instructor.

BUSA 2241 Directed Practicum II 1-5-3
This course is a continuation of BUSA 2240. Prerequisite: BUSA 2240.

BUSA 2260 Practicum in Computerized Office Systems 3-0-3
This course is designed to allow the student to select a software application of interest, such as for a medical office, legal office, insurance company, etc., and complete a project in a simulated office setting. Prerequisites: Exit or exemption from Learning Support Reading, English and Math; ITEC 2223; ITEC 2224; ITEC 2226.

BUSA 2299 Contemporary Business Issues 3-0-3
This course is a capstone designed to integrate the common body of knowledge gained from the business student’s program of study. The subject matter stresses decision-making and utilizes cases and other experiential methods. Prerequisites: Completion of all other required AREA F courses for the student’s program of study or permission of the instructor.

CHEMISTRY (DIVISION OF SCIENCE, MATHEMATICS AND HEALTH PROFESSIONS)

CHEM 1151 Survey of Chemistry I 3-0-3
This course introduces the basic concepts and terminology of chemistry. Topics included are the gas laws, stoichiometry and atomic theory. The course is recommended for humanities, social science, allied health and nursing students. Further, science majors with little or no previous background in chemistry are encouraged to take this course in preparation for the science major’s sequence, CHEM 1211-1212. Prerequisite: MATH 1111 or passing score on Math Placement Examination (MPE), or by permission of the instructor. Corequisite: CLAB 1151

*Satisfies College Preparatory Curriculum (CPC) in Natural Science when cross-referenced as CHEM 1100. CHEM 1101 cannot be repeated for credit if taken to satisfy a CPC requirement.
CLAB 1151 Survey of Chemistry Lab I 0-3-1
This is the laboratory component of CHEM 1151. Experimental topics include: basic laboratory techniques, measurement, chemical reactions, reliability of data, the pH scale, buffer solutions, physiologically important ions, acids and bases. Prerequisite/corequisite: CHEM 1151 or permission of the instructor.

*Satisfies College Preparatory Curriculum (CPC) in Natural Science when cross-referenced as CHEM 1100. CHEM 1101 cannot be repeated for credit if taken to satisfy a CPC requirement.

CHEM 1152 Survey of Chemistry II 3-0-3
This course is a continuation of the general chemistry sequence and includes an introduction to organic and biochemistry. Consumer chemistry topics, such as types of drugs, over-the-counter, legal and illegal, are discussed. Prerequisite: CHEM 1151/CLAB 1151 or permission of the instructor. Corequisite: CLAB 1152.

CLAB 1152 Survey of Chemistry Lab II 0-3-1
This is the laboratory component of CHEM 1152. Experimental topics include: hydrocarbons, alcohols, phenols, mercaptans, carbonyl compounds, preparation and examination of a drug (aspirin), enzymes and chemical reactions. Prerequisite: CHEM 1151/CLAB 1151 or permission of the instructor. Corequisite: CHEM 1152.

CHEM 1211 General Chemistry I 3-0-3
For the student majoring in engineering or science, this course is designed to present the fundamentals of chemistry and demonstrate their application through lecture and problem solving. Topics include: measurements, atomic theory, chemical reactions, equations, stoichiometry, solutions and solution stoichiometry, gases and their properties, quantum theory, the periodic table, bonding theories, oxidation-reduction reaction, an introduction to thermochemistry. Students without prior chemistry courses are urged to take CHEM 1151 and CLAB 1151 prior to enrolling in CHEM 1211. Prerequisite: MATH 1113 or passing score on the Math Placement Examination (MPE). Corequisite: CLAB 1211.

CLAB 1211 General Chemistry Lab I 0-3-1
This is the laboratory component of CHEM 1211. Experimental topics include: basic laboratory techniques, sequence of chemical reactions, chemical periodicity, acid-base titrations, physical measurements, and structure/bonding. Corequisite: CHEM 1211.

CHEM 1212 General Chemistry II 3-0-3
This course is a continuation of CHEM 1212. Topics include: solutions, thermodynamics, kinetics, equilibrium, solubility product constants, ionic equilibria and electrochemistry. Prerequisite: CHEM 1211 or permission of the instructor. Corequisite: CLAB 1212.
CLAB 1212 General Chemistry Lab II 0-3-1
This is the laboratory component of CHEM 1212. Topics include: acid-base titrations, colligative properties, oxidation-reduction titrations, heats of neutralizations, rates of chemical reactions, preparation and analysis of an inorganic compound. Prerequisite: CHEM 1211/CLAB 1211 or permission of the instructor. Corequisite: CHEM 1212.

CHEM 1213 Analytical Chemistry 3-0-3
This course is designed for students majoring in science or related fields. Topics include: qualitative and quantitative analysis, experimental error, statistics and data interpretation, applications of spectrophotometry, volumetric analysis, acid-base titration, EDTA titration, electrodes and potentiometry and atomic spectroscopy. Prerequisites: CHEM 1212; CLAB 1212 or permission of the instructor. Corequisite: CLAB 1213.

CLAB 1213 Analytical Chemistry Lab 0-3-1
This course is the laboratory component of CHEM 1213. Experimental topics include: qualitative analysis, preparation of standardized solutions, EDTA/Iodimetric titrations, coulometric titrations, spectrophotometry, quantitative analysis by gas chromatography or high pressure liquid chromatography. Prerequisites: CHEM 1212, CLAB 1212 or permission of the instructor. Corequisite: CHEM 1213.

CHEM 2241 Organic Chemistry I 3-0-3
This course provides a study of the chemistry of organic compounds including their physical and chemical properties, synthesis and reaction mechanisms. Topics include bonding theories, organic acids and bases, reaction pathways, stereochemistry, nucleophilic substitution and elimination reactions, alkenes and an introduction to spectroscopy. This course is designed for science majors. Prerequisites: CHEM 1212 CLAB 1212. Corequisite: CLAB 2241.

CLAB 2241 Organic Chemistry I Lab 0-4-1
This course is the laboratory component of CHEM 2241. It is designed to provide basic laboratory techniques necessary for chemical and physical determination. These techniques include crystallization, melting and boiling point determination, distillation, extraction, column and thin layer chromatography as well as gas chromatography. In addition, the student gains experience in optical activity and resolution/analysis of an enantiomeric mixture. Prerequisite and/or corequisite: CHEM 2241.

CHEM 2242 Organic Chemistry II 3-0-3
This course is a continuation of the study of the chemistry of carbon compounds. Topics include alcohols, carbonyl compounds, polyenes, enols and enolates, the chemistry of aromatic compounds and mass spectrometry. This course is designed for science majors. Prerequisites: CHEM 2241; CLAB 2241.
CLAB 2242 Organic Chemistry Lab II 0-4-1
The laboratory component of CHEM 2242 and continuation of CLAB 2241. This course provides a study of the techniques using semi-microscale experiments. Experiments include oxidation/reduction, esterification, Grignard Synthesis, Friedel-Crafts Alkylation, Diel-Alder, and Diazo Compound Synthesis. Students use various spectroscopic techniques, including IR, UV-VIS and NMR and GC-MS for structure determination and for identifying unknown liquids and solids. Prerequisites: CHEM 2241; CLAB 2241. Corequisite: CHEM 2242.

CHEM 2245 Intro. to Undergr. Research: Instrumentation 1-2-2
This is a study of the instruments and techniques commonly used in science laboratories. Instrumentation and techniques to be studied include but are not limited to: spectroscopy, chromatography, electrophoresis, pH determination, DNA biotechnology, solution preparation, and data collection with remote sensing equipment and techniques. Prerequisite: A grade of "C" or better in a 200-level biology or chemistry course.

CHEM 2246 Topics in Science 1-2-2
This course provides students with opportunities to explore current topics and problems in terms of underlying principles of biology, chemistry and physics. This course is comparative and has an interdisciplinary flavor in that the socioeconomic, cultural, ethical and political aspects of such topics as genetic engineering, environmental chemistry, laser technology, and earth systems science are discussed. Prerequisite: A grade of “C” or better in an introductory biology or chemistry course or permission of the instructor.

COMMUNICATIONS (DIVISION OF HUMANITIES AND FINE ARTS)

COMM 1100 Human Communications 3-0-3
This course consists of a broad approach to oral communication skills, including intrapersonal, interpersonal, small-group, and public speaking. Emphasis is placed on developing speech communication skills pertinent to survival in today’s success-oriented society, with emphasis on a diversity of contemporary speaker-listener situations. No prerequisite.

COMM 1110 Public Speaking 3-0-3
This course centers on exploration and application of guidelines and principles essential to a variety of formal/professional public speaking modes through preparation and delivery of speeches and the evaluation of these presentations. The organization of materials and the vocal and physical aspects of delivery are emphasized. Prerequisite: ENGL 1101, or COMM 1100, or permission of the instructor.
COMPUTER APPLICATIONS (DIVISION OF BUSINESS AND COMPUTER SCIENCE)

CISM 2101 Computer Information Systems Management 3-0-3
This course introduces students to the board concepts of computer-based Information systems and their applications in the business environment. The course provides hands-on experience in the use of current application software packages (Word processor, Spreadsheet, Database, Presentation software, etc) in processing data. It is intended study for Business Programs and will not satisfy Area D requirements. Prerequisites: Exit or exemption from Learning Support; BUSA 1101 or permission of the instructor.

COMPUTER SCIENCE (DIVISION OF BUSINESS AND COMPUTER SCIENCE)

CSCI 1135 Introduction to Computers 2-2-3
This course is designed to provide an introduction to computer concepts and information processing. The course includes an overview of computer hardware, software, basic networking concepts, history of data processing systems, major trends in information systems, Information Superhighway, social issues and career opportunities in information processing. An integral part of the course is hands-on experience with current applications software in word processing, electronic spreadsheet, database management systems and the internet. Prerequisite: Exit or exemption from Learning Support Reading and Mathematics.

CSCI 1136 Fundamentals of Electronic Spreadsheets 0-3-1
This course provides the knowledge, skills and hand-on experience needed to gain proficiency in using spread sheet applications in various disciplines. It is designed for both non-science and science majors with special attention given to the preparation of reports and the display of data in different formats. Prerequisite: MATH 1111 or MATH 1113.

CSCI 1137 Fundamentals of Database Management 0-3-1
This course provides the knowledge, skills and hands-on experience needed to gain proficiency in using database applications in various disciplines. It is designed for both non-science and science majors. Prerequisite: MATH 1111 or MATH 1113.

CSCI 1138 Introduction to Cyberspace Technologies 0-3-1
This course provides the knowledge, skills and hands-on experiences needed to gain proficiency in accessing and using the internet and e-mail. It is designed for
both non-science and science majors. Prerequisite: Exit or exemption from Learning Support Reading and Mathematics.

**CSCI 1142 Introduction to C Programming 3-0-3**
This course provides an introduction to the fundamentals of the C programming language: variables, input/output statements, operators, loops, decision-making, functions, arrays, strings, files, standard input, binary mode, record input and random access. Prerequisites: Exit or exemption from Learning Support Reading or English; and MATH 1111 or 1113 or 1128 or CSCI 1135 or permission of the instructor.

**CSCI 1143 BASIC: Interactive Programming 3-0-3**
This course is designed to develop the student’s ability to program in BASIC in either a business or an educational setting. It has a problem-solving orientation with an emphasis on string manipulations, formatting output, file manipulation and logical structuring of procedures. Students are also introduced to the additional capabilities of a microcomputer (such as graphics and sound) as well as system analysis and design. Prerequisites: Exit or exemption from Learning Support Reading and English; and MATH 1111; CSCI 1135 or MATH 1128 or permission of the instructor.

**CSCI 1145 COBOL: Business Programming 3-0-3**
This course provides an introduction to the computer programming file language of COBOL. A structured problem-solving approach is used to present COBOL data structures and data manipulation within business-oriented settings. Prerequisites: Exit or exemption from Learning Support Reading and Mathematics; and MATH 1111 or MATH 1113 or MATH 1128 or CSCI 1135 or permission of the instructor.

**CSCI 1146 Introduction to JAVA Programming 3-0-3**
This course provides an introduction to the fundamentals of the JAVA Programming Language, problem solving and algorithm development, simple data types, arithmetic and logic operators, selection structures, repetition structures, text files, arrays, classes, methods, applets and fundamentals of Object-Oriented programming. Prerequisite: Exit from Learning Support Reading, English and Math; MATH 1111, 1113, CSCI 1135 or permission of the instructor.

**CSCI 1301 Computer Science I 3-0-3**
This course provides an overview of computers and programming with emphasis on problem-solving and algorithm development. Topics include simple data types, arithmetic and logic operators, selection structures, repetition structures, text files, arrays (one-and-two-dimensional), procedural abstraction and software design, modular programming (including subprograms or the equivalent). The principles/concepts outlined above are implemented using a
high-level programming language. Prerequisite: MATH 1128, CSCI 1142, 1143, 1145 or 1146, satisfactory performance on an exemption exam or permission of the instructor.

CSCI 1302 Computer Science II 3-0-3
This course is a continuation of CSCI 1301. Topics include an overview of abstract data types (ADT’s): arrays (multi-dimensional) and records; sets and strings; binary files; searching and sorting; introductory algorithm (including Big-O); recursion; pointers and linked lists; software engineering concepts; and dynamic data structures (stacks, queues, trees). Prerequisite: CSCI 1301 or permission of the instructor.

CSCI 2212 Computer Graphics 3-0-3
This course provides an introduction to graphics programming. Topics include graphic presentation of data, interfacing graphics with text, multimedia, and a survey of graphics software packages. Students use a high-level programming language to create a color graphics package. Prerequisite: CSCI 1142 or CSCI 1143, CSCI 1146 or CSCI 1301 or permission of the instructor.

CSCI 2214 Computer Organization and Assembler Language 3-0-3
This course provides an introduction to computer structure, machine language instruction, addressing techniques and digital representation of data. Symbolic coding and assembly systems, macro definition and generation, and program segmentation and linkage. Programming assignments to illustrate machine structure and programming techniques. Prerequisite: CSCI 1142, CSCI 1143, CSCI 1145, CSCI 1301, or permission of the instructor.

CSCI 2216 Survey of Programming Languages 3-0-3
This course provides a comparative study of programming languages to prepare the student to evaluate such languages. Programming assignments are given to illustrate the features of each language. Prerequisite: CSCI 1142, CSCI 1143, CSCI 1146, CSCI 1301 or permission of the instructor.

CSCI 2222 Scientific Programming 3-0-3
This course includes the following topics: file processing operations for sequential and random access files and sorting techniques. Some programming assignments are derived from elementary statistics, combinatorics, matrix operations and systems of equations, iterative methods for solving equations, elements of numerical differentiation and integration, and operations with complex numbers. Prerequisite: CSCI 1142 or CSCI 1301 or permission of the instructor.

CSCI 2245 File Processing and Database Management 3-0-3
This course is a continuation of the development of the design, implementation, testing and documentation skills introduced in CSCI 1301, with emphasis on the techniques of algorithm development and structured programming. Topics
include an overview of file processing, data representation and validation, algorithms for report preparations and sequential file processing. Prerequisites: CSCI 1302 or permission of the instructor.

**CSCI 2250 Computer Architecture** 3-0-3
This course provides a study of hardware, software and local area networks. Topics include input/output systems, memory management storage devices, operating systems, microprogramming and microcomputers. Assignments provide hands-on experience. Prerequisite: CSCI 2214 or permission of the instructor.

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**COOPERATIVE EDUCATION (DIVISION OF BUSINESS AND COMPUTER SCIENCE)**

**COED 2281 Cooperative Education**
Cooperative Education students receive and satisfactorily complete an approved work assignment of 8-18 hours per week for one semester hour of credit.

**COED 2282 Cooperative Education**
Cooperative Education students receive and satisfactorily complete an approved work assignment of 19-29 hours per week for two semester hours of credit.

**COED 2283 Cooperative Education**
Cooperative Education students receive and satisfactorily complete an approved work assignment of 30-40 hours per week for three semester hours of credit.

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**CRIMINAL JUSTICE (DIVISION OF SOCIAL SCIENCES)**

**CRJU 1102 Introduction to Criminal Justice** 3-0-3
This course consists of an investigation of the three divisions of the criminal justice system--law enforcement, courts, and corrections--with particular emphasis on the functions and basic problems of each division, as well as the interrelationships between the three divisions. Prerequisite: Exit or exemption from Learning Support Reading.

**CRJU 1105 Introduction to Law Enforcement** 3-0-3
This course presents a review of: (a) patterns of organization of law enforcement in society; (b) foundations, methods, types, and effects of law enforcement agencies at local, state and federal levels; and (c) the relationship between law enforcement and societal problems in ethnic diversity, community relations, and the police subculture. Prerequisite: Exit or exemption from Learning Support Reading.
CRJU 1106 Introduction to Corrections 3-0-3
This course presents an overview of: (a) correctional approaches, with primary emphasis on incarceration; (b) local, state, and federal levels of prison systems; (c) types of prisons; (d) internal structures and procedures for modern prisons; and (d) inmate social structures within male and female institutions. Prerequisite: Exit or exemption from Learning Support Reading.

CRJU 2105 Introduction to Criminology 3-0-3
This course provides an introduction to the definitions, nature, distribution, and causes of crime and criminal behavior. Historical and contemporary theoretical explanations are explored. Prerequisite: Exit or exemption from Learning Support Reading.

CRJU 2108 Introduction to Criminal Law 3-0-3
This course is a survey of the nature and definitions of criminal acts, including a consideration of the elements of crime against the person, crimes against property and crimes against society. Responsibility for criminal conduct is also considered. The Constitutional impact on criminal procedures and the impact of the Supreme Court are also included in this overview. This course provides a concise, yet comprehensive, introduction to the substantive criminal law. Prerequisite: Exit or exemption from Learning Support Reading.

CRJU 2230 Interpersonal Relations in Law Enforcement 3-0-3
This course offers an introduction to the methods of “community oriented policing” establishing a partnership between law enforcement agencies and communities. The goal is to prepare students to understand and appreciate cultural diversity and to be able to communicate effectively with residents of high crime areas, as well as with advocates of programs for improving law enforcement practices. Prerequisite: Exit or exemption from Learning Support Reading and English.

CRJU 2240 Introduction to Juvenile Delinquency 3-0-3
This course examines (a) the nature, causes, development and consequences of juvenile delinquency; (b) the changing societal perceptions and reactions to juvenile delinquency and to juveniles who commit adult crimes; and (c) the adjudication, punishment and special needs of the juvenile offender. Prerequisite: Exit or exemption from Learning Support Reading and English.

CRJU 2251 Practicum in Criminal Justice 3-0-3
A placement in one of the three primary divisions of the criminal justice system--law enforcement, corrections and the judicial system--is provided each student. Prerequisite: CRJU 1102.

CRJU 2500 Introduction to Homeland Security 3-0-3
This course is designed to serve as a primary course for those interested in Homeland (or Domestic) Security and will also serve as an ancillary course in introductory criminal justice or terrorism related courses. It covers the 9/11 attacks, the roles of national and state agencies and the private sector in the quest
CRJU 2801 Law Enforcement Leadership and Administration I  3-0-3
This course is an introduction to the principles and roles of leadership in the area of law enforcement management. Primary focus will be placed on theories of leadership and management, motivation, organization and application. A review of leadership typologies will also be included. Prerequisites: Exit or exemption from Learning Support Reading; passing a multi-level criminal background check.

CRJU 2803 Law Enforcement Liability 3-0-3
This course is designed to introduce to the student to legal liability issues involved in supervision and management within a Law enforcement agency, including the various levels of liability from officer misconduct to agency negligence. The student will become familiar with the importance of agency policies and the concept and definitions of Torts, Negligence, 42-U.S.C. sec. 1983, and 18 U.S.C. sec. 242 violations. Prerequisites: Exit or exemption from Learning Support Reading; passing a multi-level criminal background check.

CRJU 2804 Professional Standards In Law Enforcement 3-0-3
This course will develop the skills required to understand professional standards set forth by professional law enforcement agencies. An overview of professional standards will be facilitated to include development of model policies and their purpose, general orders and procedures, as well as their application. Students will be also introduced to internal affairs investigations, and their role in maintaining professional standards within a law enforcement agency. Prerequisites: Exit or exemption from Learning Support Reading; passing a multi-level criminal background check.

CRJU 2901 Law Enforcement Leadership and Administration II  3-0-3
This course focuses on issues associated with law enforcement leadership roles. Topics include effective time management, stress management, and characteristics of a healthy workplace. Other topics include dealing with diverse personalities as well as a strong emphasis on understanding and developing communication skills within a law enforcement environment. Prerequisites: Exit or exemption from Learning Support Reading; passing a multi-level criminal background check.

CRJU 3110 Diversity Issues in Criminal Justice 3-0-3
This course examines how the issues of crime and justice are played out in the context of a diverse society. The course will consider: 1) how the law affects and has affected different groups in United States society; 2) the differential involvement in crime and the criminal justice system across groups; and 3) the differential responses of the justice system to various groups. Prerequisites: CRJU 1102 and Junior or Senior standing.
CRJU 3117 Research Methods in Criminal Justice 3-0-3
This course provides an overview of research methods employed in criminal justice. Theoretical principles on which scientific research is based are studied and applied to criminological research methods. Students will learn the historical development of social research as well as techniques and problems encountered in criminal justice research methods. Prerequisites: CRJU 1102 and Junior or Senior standing.

CRJU 3201 Criminal Justice Ethics 3-0-3
This course examines the ethical considerations facing the criminal justice practitioner. Topics include determining moral behavior, ethics and law enforcement, ethics and the courts, ethics and corrections, and ethical factors in criminal justice system policy and management issues. Prerequisites: CRJU 1102 and Junior or Senior standing.

CRJU 3230 Criminal Justice Administration and Supervision 3-0-3
This course examines the theories of motivation, leadership, and organization in the context of criminal justice governmental and social agencies. Administrative and management functions are studied emphasizing personnel management and organizational change. Topics include discipline, motivation, training, job classification, salary standards, promotion, and labor relations. Prerequisites: CRJU 1102 and Junior or Senior standing.

CRJU 3301 The Judicial System 3-0-3
This course looks at the role of the judiciary in the criminal justice system including the structure of the courts and criminal procedure from charging through sentencing and appeal. Prerequisites: CRJU 1102 and Junior or Senior standing.

CRJU 3302 Organized Crime 3-0-3
This course examines the origins, histories, and activities of various major organized crime groups in the United States and throughout the world. Special emphasis is placed on emerging organized criminal enterprises in developing countries and regions. In addition, this course explores the methods used by law enforcement to combat organized crime. Prerequisites: CRJU 1102 and Junior or Senior standing.

CRJU 3320 Criminal Investigation 3-0-3
This course examines the historical, theoretical, and technological aspects of the investigation of crime. The topic include crime scene examinations, the collection
and preservation of evidence, forensic and behavioral sciences, interviews, interrogations, and the use of technology by law enforcement agencies.
Prerequisites: CRJU 1102 and Junior or Senior standing.

**CRJU 3340 - Legal Analysis**  
3-0-3  
This course involves students in the process of reasoning objectively and arguing persuasively within a socio-legal framework. Set against a background of formal and informal logic that guides reasoning in general, the course is primarily concerned with the reasoning underlying the construction of legal arguments from judicial, legislative, and scholarly points of view. Theoretical analysis is illustrated by investigating and writing about the law, with an emphasis on topics related to crime.
Prerequisites: CRJU 1102 and Junior or Senior standing.

**CRJU 3420 Criminal Profiling and Victimology**  
3-0-3  
This course centers on the “deductive profiling” method, the analysis process of forensic evidence, and the development of offender characteristics. It approaches each crime as its own universe of social relationships and behaviors and requires the examination and analysis of a real homicide. An overview of the socio-legal aspects involving profiling and analysis of specific profiling issues in different types of serial crimes are addressed. Basic concepts of criminal victimization, including society’s response to victims and their problems, will also be studied.
Prerequisites: CRJU 1102, CRJU 2105 and Junior or Senior standing.

**CRJU 3520 Economic Crime Law and Investigation**  
3-0-3  
This course is designed to prepare students with the skills necessary to detect, investigate, and prevent white collar crime. Included is an analysis of the legal issues related to fraud and other economic crimes, and the organization of evidence in preparation of presenting a case for prosecution.
Prerequisites: CRJU 1102 and Junior or Senior standing.

**CRJU 4101 Technical Writing in Criminal Justice**  
3-0-3  
This course will focus on technical writing skills required in all criminal justice fields will be taught. Special emphasis will be placed on essential, objective, and factual report writing; note taking; extensive agency and court narratives; and related social histories and reports.

**CRJU 4125 Community Based Corrections**  
3-0-3

**CRJU 4126 Institutional Treatment of Criminal Offenders**  
3-0-3  
This course examines institutional and individual theories of correctional treatment of criminal offenders.
Prerequisites: CRJU 1102, CRJU 1106 and Junior or Senior standing.

**CRJU 4305 Cybercrime** 3-0-3  
This course focuses on cybercrime and computer-related crime issues facing the criminal justice system in the United States. Topics include: 1) the ability of law enforcement to respond to cybercrimes, 2) law enforcement problems in dealing with computer crime, 3) governmental response to cybercrime problems, and 4) future trends in cybercrime and computer-related crime. Prerequisites: CRJU 1102 and Junior or Senior standing.

**CRJU 4401 Police Systems in the United States** 3-0-3  
An overview of the social and historical settings of the police and of the police role and function is provided in this course. Topics include an examination of the structure of policing in the United States, the use of police discretionary powers, police values, police culture, and the organization and control of police. Prerequisites: CRJU 1102 and Junior or Senior standing.

**CRJU 4426 Civil Liberties** 3-0-3  
This course examines the rights of Americans as guaranteed by the Constitution of the United States. The changing character of civil liberties problems in the United States will be stressed with attention given to the legal, historical and political context of the cases studied. Prerequisites: CRJU 1102 and Junior or Senior standing.

**CRJU 4600 Ideological Violence and Law Enforcement** 3-0-3  
The course will examine law enforcement response to domestic and international terrorism. Topics will include threat analysis, intelligence processing, proactive measures, reactive measures, development of modern terrorism and specific terrorist groups. Prerequisites: CRJU 1102, CRJU 2500 and Junior or Senior standing.

**CRJU 4701 Comparative Criminal Justice Systems** 3-0-3  
This course analyzes issues in criminal justice and their characteristics as they relate to the operation of larger social structures viewed in global perspective. Prerequisites: CRJU 1102 and Junior or Senior standing.

**CRJU 4801 Restorative Justice** 3-0-3  
This course will examine the definitions, historical and theoretical origins and development, principles and practices, benefits and limitations of restorative justice as an alternative approach to traditional retributive government responses to crime in the United States. Topics include victim-offender mediation programs and the role of offender, victim, church, state, and community in the restorative
justice model. Students will also examine a program evaluation of restorative justice programs to discern outcome effectiveness.
Prerequisites: CRJU 1102 and Junior or Senior standing.

**CRJU 4900 Law Enforcement Initiatives 3-0-3**
This course allows the student to participate in a seminar that includes up to date information from readings and through discussions with agents from state and federal agencies. Students will develop knowledge about state and federal agencies and their missions; the types of investigations under-taken by agencies; the use of technology by agencies and by offenders; predictions of future issues and crimes the agencies will likely face; the application and hiring process and essential/desired skills needed to work for various agencies.
Prerequisites: CRJU 1102 and Junior or Senior standing.

**CRJU 4901 Internship 1 1-4-3**
This course provides senior status students with an opportunity to perform as participants in established criminal justice agencies at the local and state levels. Students must attend class on campus one hour a week and work in an approved local or state criminal justice agency 4 hours a week.
Prerequisites: CRJU 1102, Senior standing, clear criminal background check, and consent of the instructor.

**CRJU 4902 Internship 2 1-4-3**
Senior level students will perform as participants in established criminal justice federal agencies. Students must attend class on campus one hour a week and work in an approved federal level criminal justice agency 4 hours a week.
Prerequisites: CRJU 1102, Senior standing, clear criminal background check, and consent of the instructor.

**CRJU 4999 Criminal Justice Senior Capstone  3-0-3  credits**
This required capstone course is designed for senior level students who will apply learning from previous criminal justice courses. This course addresses current issues and trends in criminal justice to integrate knowledge concerning criminal justice policy. Each student is required to prepare, submit, and present a research paper on an instructor-approved criminal justice topic.
Prerequisites: CRJU 1102, CRJU 3117, Senior standing, and consent of the instructor.
This course also covers future plans in Homeland Security, the legal issues involved and weapons of mass destruction. Prerequisites: POLS 1101 – American Government or Permission of Instructor; and Exit or Exemption from Learning Support Reading and English.

**ECONOMICS (DIVISION OF BUSINESS AND COMPUTER SCIENCE)**

**ECON 1105 Introduction to Economics** 3-0-3
This course provides an analysis of the economic operations of modern industrial society, as well as economic concepts and their application in a free-enterprise system. Prerequisite: Exit or exemption from Learning Support Reading, English and Math.

**ECON 2105 Principles of Macroeconomics** 3-0-3
This principles course introduces students to concepts that will enable them to understand and analyze economic aggregates and evaluate economic policies. Prerequisite: Exit or exemption from Learning Support Reading, English and Math.

**ECON 2106 Principles of Microeconomics** 3-0-3
This principles course introduces students to concepts that will enable them to understand and analyze structure and performance of the market economy. Prerequisite: Exit from Learning Support Reading, English and Math.

**EDUCATION (DIVISION OF SOCIAL SCIENCES)**

In each Education course, students must complete a ten-hour field experience as part of the requirements. Prior to beginning the field experience the student must purchase liability insurance and the course instructor and Coordinator of Teacher Education Field Experience will provide details. In addition, a criminal background check is required, with a fee paid by the student, as arranged by the course Instructor and Coordinator of Teacher Education Field Experience with the Atlanta Metropolitan State College Office of Public Safety. Negative information on background checks may prevent students from completing Education course field experience requirements as school districts have the right to deny placement of students who fail the background check in their schools. Negative information on criminal background checks may ultimately prevent students from being certified as teachers. Students who fail to purchase the required liability insurance and/or fail the background check will not be able to complete the mandatory field experience requirements, and must withdraw from Education courses and change their major.
EDUC 1105 Foundations of Ed. in American Society 3-0-3
This course surveys the philosophical, historical, sociological, psychological, and political foundations of American education. Additionally, an up-to-date assessment of careers in the field of education is discussed. Twenty hours of field experience are required. Prerequisite: Exit or exemption from Learning Support Reading, English and Math.

EDUC 1117 Introduction to Child Development 3-0-3
This course provides an overview of human development which emphasizes the physical, motor, cognitive, and affective phases, as well as the role of peer groups, motivation, and socialization in the early days. The ramifications of various childrearing patterns are also examined. Observation in a preschool and/or elementary-school setting is required. Prerequisite: Exit or exemption from Learning Support Reading, English and Math; PSYC 1101.

EDUC 2101 Introduction to Education 3-0-3
This course examines the teaching profession through an overview of organizational, curricular, methodological, and multicultural issues in classroom teaching. Prerequisite: Exit or exemption from Learning Support Reading, English and Math.

EDUC 2105 Exceptional Children 3-0-3
This course focuses on the identification, characteristics and techniques of teaching exceptional children and youth in the regular classroom. Ten hours of field experience are required. Prerequisite: Exit or exemption from Learning Support Reading, English and Math; EDUC 1105 and EDUC 2101.

EDUC 2110 Investigating Critical & Contemporary Issues in Education 3-0-3
This course engages in observation, interactions, and analyses of critical and contemporary educational issues. Students will investigate issues influencing the social and political contexts of educational settings in Georgia and the United States. Students will actively examine the teaching profession from multiple vantage points both within and outside the school. Against this backdrop, students will reflect on and interpret the meaning of education and schooling in a diverse culture and examine the moral and ethical responsibilities of teaching in a democracy. Ten (10) hours of field experience are required. Prerequisite: Exit or exemption from Learning Support Reading, English and Math, and completion of ENGL 1101.
EDUC 2120 Exploring Socio-Cultural Perspectives on Diversity in Educational Contexts 3-0-3
Given the rapidly changing demographics in our state and country, this course is designed to equip future teachers with the fundamental knowledge of understanding culture and teaching children from diverse backgrounds. Specifically, this course is designed to examine (1) the nature and function of culture; (2) the development of individual and group cultural identity; (3) definitions and implications of diversity; and (4) the influences of culture on learning, development, and pedagogy. Ten (10) hours of field experience is required. Prerequisite: Exit or exemption from Learning Support Reading, English and Math and completion of ENGL 1101.

EDUC 2130 Exploring Learning and Teaching 3-0-3
This course involves exploring key aspects of learning and teaching through examining your own learning processes and those of others, with the goal of applying your knowledge to enhance the learning of all students in a variety of educational settings and contexts. Ten (10) hours of field experience is required. Prerequisite: Exit or exemption from Learning Support Reading, English and Math and completion of ENGL 1101

EDUC 2253 Curriculum & Programming for Children’s Serv. 3-0-3
This course studies the various children’s services programs used in both academic and community settings. Students also study program design and development for traditional and nontraditional settings. Prerequisite: Exit or exemption from Learning Support Reading, English, Mathematics, EDUC 1105 and EDUC 2101.

ENGINEERING DRAWING (DIVISION OF SCIENCE, MATHEMATICS AND HEALTH PROFESSIONS)

CADD 1111 Engineering Drawing I 0-2-2
This course provides an introduction to a broad range of engineering graphics topics, including the use of instruments, orthographic projections, sectional views, and computer-aided design. Prerequisites: Exit or exemption from Learning Support Mathematics.

CADD 1112 Engineering Drawing II 0-2-2
This course involves the graphic development of the spatial relationships of points, lines, and the intersections of surfaces. Emphasis is placed on a thorough understanding of projection principles so the visualization of exact space conditions is developed. Considerable attention is given to the use of computer-
aided designs to develop engineering design projects that meet industry and ANSI standards. Prerequisite: CADD 1111.

**ENGLISH (DIVISION OF HUMANITIES AND FINE ARTS)**

**ENGL 0099 Writer’s Workshop**  4-0-4
In English 0099, students have multiple opportunities to advance their understanding of written English, develop more complex sentence structures, and learn proofreading skills. Prerequisite: Satisfactory score on the COMPASS Placement Examination. Institutional credit only.

**ENGL 0099E  Writer’s Workshop (ESL)**  4-0-4
English 0099E is the second level of preparation for academic writing. Intended for ESL students, it develops writing skills. Students have multiple opportunities to advance their understanding of written English, develop more complex sentence structures, and learn proofreading skills. Special emphasis is placed on the linguistic difficulties of the English as a Second Language student. Prerequisite: A satisfactory score on the COMPASS Placement Examination. Institutional credit only.

**ENGL 1101 English Composition I**  3-0-3
This composition course focuses on skills required for effective writing in a variety of contexts, with emphasis on exposition, analysis, and argumentation. Prerequisites: Exit or exemption from Learning Support English and Reading. Students must earn at least a “C” in order to successfully pass the course.

**ENGL 1102 English Composition II**  3-0-3
This composition course develops writing skills beyond the levels of proficiency required by ENGL 1101. Emphasis is placed on interpretation, evaluation and the development of advanced research methodologies. Prerequisites: Exit or exemption from Learning Support English and Reading, and ENGL 1101.

**ENGL 1105 Technical Writing**  3-0-3
This course focuses on the fundamentals of specialized types of writing used in business, industry, and technical professions. Emphasis is placed on organization and presentation of factual material with clarity, definiteness, and conciseness. Course content may be individualized according to the business and professional needs of the student. Prerequisites: Exit or exemption from Learning Support Reading and English; ENGL 1101 or permission of the instructor.

**ENGL 2111 World Literature I**  3-0-3
This course surveys important works of world literature from ancient times through the mid-seventeenth century. Prerequisites: Exit or exemption from
Learning Support English and Reading; ENGL 1101 or permission of the instructor.

**ENGL 2112 World Literature II** 3-0-3
This course surveys important works of world literature from mid-seventeenth century to the present. Prerequisites: Exit or exemption from Learning Support English and Reading; English 1101 or permission of the instructor.

**ENGL 2130 American Literature** 3-0-3
This course surveys important works of American Literature. Prerequisites: Exit or exemption from Learning Support English and Reading; ENGL 1101 or permission of the instructor.

**ENGL 2205 Introduction to Creative Writing** 3-0-3
This course offers the student an opportunity to experiment with poetry, prose and/or drama in the development of his or her own writing style, using representative works as a guide. Prerequisites: Exit or exemption from Learning Support English and Reading; ENGL 1101 or permission of the instructor.

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**ENGINEERING (DIVISION OF SCIENCE, MATHEMATICS AND HEALTH PROFESSIONS)**

**ENGR 1371 Computing for Engineers** 2-2-3
This course provides foundations of computing through an introduction to the design and analysis of algorithms and the design and construction of programs used in engineering problem-solving. Prerequisites: Exit or exemption from Learning Support English and Reading and a grade of “C” of better or exemption from MATH 1113 or permission of the instructor.

**ENGR 2201 Engineering Statics** 3-0-3
This course provides a study of the principles of statics in two and three dimensions. Topics include force vectors, free-body diagrams, and equilibrium of rigid bodies, distributed loads, trusses, beams, frames, centroids, moments of inertia, and friction. Prerequisites: PHYS 2211 or permission of the instructor. Co-requisite: MATH 2202.

**ENGR 2202 Dynamics** 3-0-3
This course provides a study of the principles of dynamics in one, two, and three dimensions. Topics include kinematics and kinetics of particles and rigid bodies, work-energy concepts, and impulse-momentum concepts. Prerequisites: ENGR 2201.
FRENCH (DIVISION OF HUMANITIES AND FINE ARTS)

FREN 1001 Elementary French I 3-0-3
This course provides an introduction to French, using all four skills: listening, speaking, reading, and writing. The culture of French-speaking regions is integrated into the course. Note: This course will not meet degree requirements at some University System of Georgia institutions.

*Satisfies College Preparatory Curriculum (CPC) requirement in Foreign Language when cross-referenced as FREN 1000 but cannot be repeated for credit. Prerequisite: Exit or exemption from Learning Support Reading and English.

FREN 1002 Elementary French II 3-0-3
This course continues and completes the introduction of major grammatical points begun in French 1001. All four language skills are included. Study of the culture of French-speaking regions is continued. Prerequisite: FREN 1001, or one year of high school French, or equivalent.

FREN 2001 Intermediate French I 3-0-3
The finer points of grammar are introduced, with extensive speaking and reading comprehension practice. Prerequisite: FREN 1002, or two years of high school French, or equivalent.

FREN 2002 Intermediate French II 3-0-3
This course continues the work of French 2001. Emphasis in this course is on working with original French texts. Prerequisite: FREN 2001, or three years of high school French, or equivalent.

GENERAL SCIENCE (DIVISION OF SCIENCE, MATHEMATICS AND HEALTH PROFESSIONS)

GSCI 1101 General Science I 3-0-3
This is an interdisciplinary course designed to communicate to the non-science major fundamental concepts related to the life, physical and earth sciences. Topics include the methods of science, matter, energy, sound, light and conservation. This course is especially well-suited to the needs of students majoring in elementary science. Prerequisite: Exit or exemption from Learning Support Reading and English or permission of the instructor.

*Satisfies College Preparatory Curriculum (CPC) requirement in Natural Science when cross-referenced as GSCI 1100 and taken with GSCL 1100, the lab portion of this course; GSCI 1101 cannot be repeated for credit if taken to satisfy a CPC requirement.
GSCL 1101 General Science Lab I 0-2-1
This is the laboratory component of GSCI 1101. Topics include scientific measurement, laboratory techniques, scientific literature, the chemical nature of matter, light, sound, energy and ecology. Prerequisite or corequisite: GSCI 1101 or permission of the instructor.

* Satisfies College Preparatory Curriculum (CPC) requirements in Natural Science when cross-referenced as GSCL 1100 and taken with GSCI 1100, the lecture portion of this course; GSCL 1101 cannot be repeated for credit.

GSCI 1102 General Science II 3-0-3
This course is a continuation of GSCI 1101. Prerequisite: Exit or exemption from Learning Support Reading and English or permission of the instructor.

* Satisfies College Preparatory Curriculum (CPC) requirement in Natural Science when cross-referenced as GSCI 1100 and taken with GSCI 1100, the lab portion of this course; GSCI 1102 cannot be repeated for credit if taken to satisfy a CPC requirement.

GSCL 1102 General Science Lab II 0-2-1
This is the laboratory component of GSCI 1102. Prerequisite or corequisite: GSCI 1102 or permission of the instructor.

* Satisfies College Preparatory Curriculum (CPC) requirements in Natural Science when cross-referenced as GSCL 1100 and taken with GSCI 1100, the lecture portion of this course; GSCL 1102 cannot be repeated for credit.

GEOGRAPHY (DIVISION OF SOCIAL SCIENCES)

GEOG 1105 Introduction to World Regional Geography 3-0-3
This course is an introduction to the human and physical geography of major world regions with emphasis on component countries, regional problems, and distinctive physical and cultural characteristics. Prerequisite: Exit or exemption from Learning Support Reading and English.

GEOLOGY (DIVISION OF SCIENCE, MATHEMATICS AND HEALTH PROFESSIONS)

GEOL 1121 Principles of Physical Geology 3-0-3
This course provides an introduction to the materials of Earth (minerals and rocks); the geologic processes which form them and their geologic distribution; the geologic process of gradation and the origin of land forms; the structure of Earth; and Earth’s place in the universe. This course is primarily for science majors. Prerequisite or corequisite: Exit or exemption from Learning Support Mathematics, Reading and English; GLAB 1121.
GLAB 1121 Principles of Physical Geology Lab 0-3-1
This course is the laboratory component of Geology 1121. Topics include rocks, minerals, erosion and field studies. Corequisite: GEOL 1121 or permission of the instructor.

GEOL 1122 Principles of Historical Geology 3-0-3
This course provides an introduction to geologic time; the principles of reconstructing the past, and the meaning of fossils; the physical history of Earth from its cosmic beginning to the present, with emphasis on North America, including the problems of continental drift and the secretion of continents, and the history of life. This course is primarily for science majors. Prerequisites: GEOL 1121, GLAB 1121 or permission of the instructor.

GLAB 1122 Principles of Historical Geology Lab 0-3-1
This course is the laboratory component of Geology 1122. Topics include the geological time scale, evolution and field studies. Prerequisite and corequisite: GEOL 1121; GLAB 1121; GEOL 1122.

HISTORY (DIVISION OF SOCIAL SCIENCES)

HIST 1111 World Civilization I 3-0-3
This course is a survey of world history to early modern times. The factors influencing the development of world societies from the earliest humans to 1500 will be studied, emphasizing the inter-dependence of social, philosophical, political, economic, and environmental factors as determinants and effects in the evolutionary process toward distinctive cultures. Prerequisite: Exit or exemption from Learning Support Reading.

*Satisfies College Preparatory Curriculum [CPC] requirements in history when cross-referenced as HIST 0111; cannot be repeated for credit if taken to satisfy a CPC requirement.

HIST 1112 World Civilization II 3-0-3
This course is a survey of world history from early modern times to the present. World societies and cultures since 1500 will be studied. The integration of events and values, as well as political, economic, social, philosophical and environmental factors influencing the present will be emphasized. Prerequisite: Exit or exemption from Learning Support Reading.

*Satisfies College Preparatory Curriculum [CPC] requirements in history when cross-referenced as HIST 0112; cannot be repeated for credit if taken to satisfy a CPC requirement.

HIST 2111 United States History I 3-0-3
This course is a survey of United States history to the post-Civil War period. Topics include Native American cultures, English colonization, the American
Revolution and Early Nationalism; international relations; Antebellum society, industrialization, and inter-group relations; sectionalism, the American Civil War, and the abolition of slavery; and the place of Georgia in United States history to the Civil War. This course satisfies the State of Georgia law requiring the study of United States and Georgia history. Prerequisite: Exit or exemption from Learning Support Reading.

(Note: Students who have taken United States/American history at a non-University System of Georgia institution must choose one of the following at Atlanta Metropolitan State College to satisfy the Georgia legislative requirement: (1) pass a Social Sciences Division administered examination in Georgia history; or (2) take and pass a United States history course; or (3) with permission of the College Registrar and Social Sciences Division Dean, take and pass Hist 2114-Georgia History.)

HIST 2211 Honors United States History I 3-0-3
This course is a survey of United States history to the post-Civil War period. Topics include Native American cultures, English colonization, the American Revolution and Early Nationalism; international relations; Antebellum society, industrialization, and inter-group relations; sectionalism, the American Civil War, and the abolition of slavery; and the place of Georgia in United States history to the Civil War. Emphasis is placed upon critical reading, advanced research papers and reports, and student-led discussions and debates. This course satisfies the State of Georgia law requiring the study of United States and Georgia history. Prerequisite: Exit or exemption from Learning Support Reading, English and Mathematics.

(Note: Students who have taken United States/American history at a non-University System of Georgia institution must choose one of the following at Atlanta Metropolitan State College to satisfy the Georgia legislative requirement: (1) pass a Social Sciences Division administered examination in Georgia history; or (2) take and pass a United States history course; or (3) with the permission of the College Registrar and Social Sciences Division Dean, take and pass Hist 2114-Georgia History.)

HIST 2112 United States History II 3-0-3
(Note: Students who have taken United States/American history at a non-University System of Georgia institution must choose one of the following at Atlanta Metropolitan State College to satisfy the Georgia legislative requirement: (1) pass a Social Sciences Division administered examination in Georgia history; or (2) take and pass a United States history course; or (3) with the permission of the College Registrar and Social Sciences Division Dean, take and pass HIST
2114-Georgia History.) Prerequisite: Exit or exemption from Learning Support Reading.

(Note: Students who have taken United States/American history at a non-University System of Georgia institution must choose one of the following at Atlanta Metropolitan State College to satisfy the Georgia legislative requirement: (1) pass a Social Sciences Division administered examination in Georgia history; or (2) take and pass a United States history course; or (3) with permission of the College Registrar and Social Sciences Division Dean, take and pass Hist 2114-Georgia History.)

HIST 2113 Minorities in American History 3-0-3
This course surveys American history in relation to selected ethnic minority groups. Emphasis is placed on factors influencing the groups, their internal dynamics, and the interaction between the groups and other elements of society. Prerequisite: Exit or exemption from Learning Support Reading.

HIST 2114 Georgia History 3-0-3
This course surveys the history of Georgia from the period of colonization to the present. (Students given College transfer credit for United States History and American Government earned at non-University System of Georgia institutions may satisfy the United States and Georgia History and United States and Georgia Constitution requirement by taking and passing this course at Atlanta Metropolitan State College.) Prerequisite: Exit or exemption from Learning Support Reading.

HIST 2232 African American History 3-0-3
This course surveys the history of African Americans in the United States from the period of colonization to the present. Prerequisite: Exit or exemption from Learning Support Reading.

**HUMANITIES (DIVISION OF HUMANITIES AND FINE ARTS)**

HUMA 1101 Exploring Selected American Cultures 3-0-3
This course is designed to survey the cultural experiences of African Americans, Hispanic Americans and Asian Americans, in the areas of drama, music and art, with an emphasis on the diversity and commonalities of world cultures and those forces which help shape and define human culture. Prerequisite: Exit or exemption from Learning Support Reading.
HUMA 1102 African American Culture 3-0-3
This course presents an introduction to studies of African American culture, primarily through readings in literature and philosophy. Prerequisite: Exit or exemption from Learning Support Reading.

HUMA 2000 Exploring Global Cultures 3-0-3
This course allows students to receive course credit for study and travel opportunities abroad. Experiences include the study of a country’s history, literature, language, art, government, civilization, and culture. This course is only for students who are taking Atlanta Metropolitan State College’s Study Abroad trip.

INTEGRATED SCIENCE (DIVISION OF SCIENCE, MATHEMATICS AND HEALTH PROFESSIONS)

ISCI 2001 Integrated Science I 3-2-3
This course is designed for inclusion in Area F for Early childhood teacher candidates. It is an interdisciplinary, inquiry-based and activity-based science course designed to communicate fundamental concepts related to earth science and life science. The goal of this course is to help students develop a basic understanding of the scientific principles congruent with the categories included in the Georgia Performance Standards. Topics covered, but are not limited to the following: the lithosphere, the hydrosphere, rocks and minerals, weather and climate, characteristics of life, chemistry of life, systems of the human body and genetics. Prerequisite: Exit or exemption from Learning Support English, Mathematics and Reading.

ISCI 2002 Integrated Science II 3-2-3
This course is a continuation of ISCI 2001. It is designed for inclusion in Area F for Early Childhood teacher candidates. It is an interdisciplinary, inquiry-based and activity-based science course designed to communicate fundamental concepts related to physical science and astronomy. The primary goal of this course is to help students develop a basic understanding of the scientific principles congruent with the categories included in the Georgia Performance Standards. Topics covered include, but are not limited to the following: methods of science, matter, energy, sound, light and conservation. Prerequisite: Exit or exemption from Learning Support English, Mathematics and Reading.
INFORMATION TECHNOLOGY (DIVISION OF BUSINESS AND COMPUTER SCIENCE)

ITEC 2204 Oper. Systems & PC Hardware Fundamentals 3-0-3
This course covers the installation, configuration, diagnosing, troubleshooting and upgrading of microcomputers and operating systems. It will also cover basic networking concepts and preventive maintenance of printers and microcomputers. Prerequisite: CISM 2101.

ITEC 2205 Data Communication and Networking 3-0-3
This course covers data communication and networking. Topics include LAN, MAN, and WAN communication standards, network protocols, OSI model, network topologies, networking equipment, and network operating systems. Prerequisite: ITEC 2204

ITEC 2210 Network Client Administration 3-0-3
This course covers the installation, configuration, administration and troubleshooting of a desktop operating system in a networked environment. This course will also cover the configuration and management of computers in a peer-to-peer networking environment. Prerequisite: ITEC 2205; Corequisite: ITEC 2215

ITEC 2215 Network Server Administration 3-0-3
This course covers the installation, configuration, administration and troubleshooting of a network operating system in a network environment. This course will also cover the configuration and the management of servers and workstations in a client-server environment. Prerequisite ITEC 2205; Corequisite: ITEC 2210.

ITEC 2216 Network Infrastructure Administration 4-0-4
This course covers the skills required to install, configure, manage, monitor and troubleshoot various network infrastructures. The course also covers Network Address Translation and Certificate Services. Prerequisites: ITEC 2210 and ITEC 2215.

ITEC 2217 Network Director Service Administration 4-0-4
This course covers the installation, configuration, and administration of director services. The course also covers the skills required to manage, monitor and optimize desktop environment and computers using group policy. Prerequisites: ITEC 2210 and ITEC 2215.

ITEC 2219 Network Directory Services Design 4-0-4
This course covers the skills required in analyzing and selecting the appropriate technology required to design a particular directory service and desktop management. The course will analyze the business requirements and design
appropriate services and desktop management services to meet the business requirements. Prerequisite: ITEC 2217.

ITEC 2220 Network Security Design 4-0-4
This course covers design and management of network security. The course will analyze the business requirement for security and design the appropriate security solution to meet the business requirements. Prerequisite: ITEC 2210 and ITEC 2215.

ITEC 2221 Network Infrastructure Design 4-0-4
This course is designed to teach students how to analyze business network infrastructure needs, select appropriate technologies, and design infrastructures to meet business requirements. Prerequisite: ITEC 2216.

ITEC 2222 Network Systems Upgrade 3-0-3
This course covers the required skills, knowledge and criteria for restructuring and upgrading your network operating system. Prerequisite: ITEC 2204.

ITEC 2223 Communicating in Cyberspace 3-0-3
This course is designed to teach students to utilize tools for effective communication in cyberspace with emphasis on e-mail, news and chat groups, navigating the web, search engines, and web presentation of information. Prerequisite: CISM 2101.

ITEC 2224 Spreadsheet Applications 3-0-3
This course covers skills required to create, edit and modify spreadsheets. Topics include importing and exporting data, using templates, macros, analysis tools, and multiple workbooks, working with ranges and toolbar, printing workbooks, auditing worksheets, collaborating with workgroups, formatting and displaying data. Prerequisites: CISM 2101 and ITEC 2223.

ITEC 2225 Word Processing Applications 3-0-3
This course will cover the skills required to create, edit, and modify paragraphs and documents. Topics include working with documents, tables, pictures and charts, using mail merge and collaborating with workgroups. It will also cover some selected advanced features of word-processing application software. Prerequisites: CISM 2101 and ITEC 2223.

ITEC 2226 Database Applications 3-0-3
This course will cover the skills required to create, edit and modify a database. Topics include planning and designing databases, building and modifying tables, forms, defining relationships, producing reports, viewing and organizing information, integrating other applications and using database tools. Prerequisites: CISM 2101 and ITEC 2223.
ITEC 2227 Electronic Presentations and Multimedia  3-0-3
This course covers the skills required to create, edit, and modify electronic presentations. It will also cover the integration of multimedia in a presentation document. Topics include creating and modifying presentations, working with text and visual elements, customizing presentations, creating outputs, managing files and incorporating music, voice, sounds, hypertext, graphics, animation and video. Prerequisites: CISM 2101 and ITEC 2223.

ITEC 2228 Desktop Management Applications  3-0-3
This course covers the use of desktop applications to manage and organize e-mail, messages, calendar, contacts, notes and daily tasks. This course will also cover the integration and creation of word processing, spreadsheets, and database documents within the desktop management application. Prerequisites: CISM 2101 and ITEC 2223.

ITEC 2229 Web Publishing  3-0-3
This course covers the skills required to create, update, and maintain web documents using selected application software. Prerequisites: CISM 2101 and ITEC 2223.

ITEC 2230 Integrated Applications & Desktop Publ.  3-0-3
This is a hands-on course in the design, layout, and development of publications such as business reports, trade journals, newsletters, ads and brochures. Students learn the basic concepts of designing, multiple font styles and sizes to produce high quality documents. Prerequisites: CISM 2101 and 2223.

MASS COMMUNICATIONS (DIVISION OF HUMANITIES AND FINE ARTS)

MCOM 1101 Introduction to Mass Communications  3-0-3
This course is designed to acquaint students with mass media as an industry. Students investigate the areas of print journalism, broadcast journalism, public relations, and advertising. Emphasis is placed on preparing competent communicators in written and oral presentations. Prerequisites: ENGL 1101; ENGL 1102.

MCOM 2201 Writing and Reporting  3-0-3
This is a combination lecture and laboratory course which emphasizes writing various types of news stories for print and broadcast media. Prerequisites: ENGL 1101; ENGL 1102.
MCOM 2202 Mass Communications Workshop 3-0-3
Designed for students desiring to major in Mass Communications at the four-year level, this course provides an opportunity for application of relevant theories and techniques to practical experiences in specific areas of interest. Students are required to develop a research project which reflects a specific career or academic interest. Research topics must be selected, and then approved by the instructor at the beginning of the course. Projects must be presented both orally and in writing. Prerequisite: English 1102.

MATHEMATICS (DIVISION OF SCIENCE, MATHEMATICS AND HEALTH PROFESSIONS)

MATH 0097 Introductory Algebra I 4-0-4
MATH 0097 is the first course in a two-course sequence designed to prepare students for College Algebra. Topics include basic operations on fractions, decimals, signed numbers, percents, linear equations and inequalities, graphing, exponents, and polynomials. No prerequisite. Institutional credit only.

MATH 0099 Introductory Algebra II 4-0-4
MATH 0099 is the second of two courses designed to prepare students for College Algebra. Topics include exponents, polynomials, linear equations, systems of equations, quadratic equations, graphing, algebraic fractions, roots, radicals, and factoring. Prerequisite: MATH 0097, or satisfactory score on the COMPASS Placement Examination. Institutional credit only.

MATH 1001 Quantitative Skills and Reasoning 3-0-3
This course places quantitative skills and reasoning in the context of experiences that students will be likely to encounter. It emphasizes processing information in context from a variety of representations, understanding of both the information and the processing, and understanding which conclusions can be reasonably determined. Prerequisite: Exit or exemption from Learning Support Reading, English, and Mathematics. (This course is an alternative in Area A of the Core Curriculum and is not intended to supply sufficient algebraic background for students who intend to take Precalculus or the calculus sequences for mathematics and science majors)

MATH 1101 Introduction to Mathematical Modeling 3-0-3
This course is an introduction to mathematical modeling using graphical, numerical, symbolic, and verbal techniques to describe and explore real-world data and phenomena. Emphasis is on the use of elementary functions to investigate and analyze applied problems and questions, supported by the use of appropriate technology and an effective communication of quantitative concepts
and results. Prerequisite: Exit or exemption from Learning Support Reading, English, and Mathematics.

**MATH 1111 College Algebra**

This course is a functional approach to algebra that incorporates the use of appropriate technology. Emphasis is placed on the study of functions and their graphs, inequalities, and linear, quadratic, rational, polynomial, exponential, and logarithmic functions. Appropriate applications are included. Prerequisite: Exit or exemption from Learning Support Mathematics and satisfactory performance of a MATH 1111 Placement Examination.

**MATH 1112 Introduction to Mathematical Techniques**

This course is designed to develop problem-solving and computational skills. It includes use of the graphics calculator and scientific spreadsheets. Topics include linear and quadratic equations, exponential and logarithmic expressions, triangle trigonometry, matrices and determinants, methods for solving systems of equations, vector operations, elements of analytical geometry, combinations and an introduction to probability. Prerequisite: A grade of “C” or better in College Algebra (MATH 1111) or satisfactory performance on a mathematics exemption examination or permission of the instructor.

**MATH 1113 Precalculus**

This course is designed to prepare students for calculus, physics, and related technical subjects. Topics include an intensive study of algebraic and transcendental functions accompanied by analytic geometry. Prerequisite: A grade of “C” or better in College Algebra (MATH 1111) or satisfactory performance on a mathematics exemption examination or permission of the instructor.

**MATH 1114 Elementary Statistics**

This course in basic statistics is especially designed for Allied Health, Business Administration and Social Science majors. Topics include descriptive statistics, distributions, inference hypothesis, and other statistical tests. Special attention is given to statistical analyses utilizing current technologies, especially computer software. Prerequisite: A grade of “C” or better in College Algebra (MATH 1111) or satisfactory performance on a mathematics exemption examination or permission of the instructor.

**MATH 1121 Decision Mathematics**

This course is designed primarily for students in Business Administration. The following topics are introduced at a basic level within the context of their application in business decision-making: sets, real numbers, functions and graphs, systems of equations, matrices, linear programming and probability. Prerequisite: A grade of “C” or better in College Algebra (MATH 1111) or
satisfactory performance on a mathematics exemption examination or permission of the instructor.

**MATH 1122 Elementary Calculus**  3-0-3  
This course is a non-theoretical introduction to the basic techniques of differential and integral calculus with emphasis on practical applications in such areas as business, economics, psychology and other social sciences. Prerequisite: A grade of “C” or better in MATH 1111 or MATH 1121 or permission of the instructor.

**MATH 1128 Discrete Mathematics**  3-0-3  
This course introduces mathematical concepts germane to computer science. Topics include binary number systems, sets, combinatories, symbolic logic, Boolean algebra, recurrence relations, mathematical induction and graphs. Prerequisite: A grade of “C” or better in MATH 1113 or permission of the instructor.

**MATH 2008 Foundations of Numbers and Operations**  3-0-3  
This course provides an Area F introductory mathematics course for early childhood education majors. This course will emphasize the understanding and use of the major concepts of numbers and operations. As a general theme, strategies of problem solving will be used and discussed in the context of various topics. Prerequisites: ENGL 1101, ENGL 1102 and MATH 1001, MATH 1101, MATH 1111, or MATH 1113.

**MATH 2201 Analytic Geometry and Calculus I**  3-2-4  
This course introduces single variable calculus, including functions, limits, continuity and definitions and applications of first and second derivatives, anti-derivatives, and integration. Prerequisite: A grade of “C” or better in MATH 1113 or permission of the instructor.

**MATH 2201H Calculus I Honors**  3 -2 – 4  
An introduction to single variable calculus including functions, limits, continuity, derivatives with applications, anti-derivatives, integration with applications, transcendental functions. Prerequisite: A grade of "C" or better in Math 1113 or permission of instructor. All test will be proctored. This course is designed for students transferring to Georgia Tech for Math 1501.

**MATH 2202 Calculus II**  3-2-4  
This course is a continuation of MATH 2201. Topics include anti-derivatives, integration, applications of the integral, logarithmic and exponential functions, trigonometric functions and further integration and differentiation techniques. Prerequisite: MATH 2201 or permission of the instructor.
MATH 2203 Calculus III
This course is a continuation of MATH 2202. It provides an introduction to the calculus of several variables. Topics include partial derivatives, vectors, parametric curves, directional derivatives, multiple integrals and change of coordinate systems. Prerequisite: MATH 2202 or permission of the instructor.

MATH 2204 Calculus IV
This course is designed to introduce mathematical methods of studying physical processes by means of differential equations. Topics include first-order, second-order and higher-order ordinary linear differential equations, and power series solutions. Prerequisite: MATH 2203 or permission of the instructor.

MATH 2208 Linear Algebra
This is a course for mathematics majors and students in some areas of the social and natural sciences. Topics include vectors and vector spaces, simultaneous equations and matrix algebra. Prerequisite: MATH 1112 or MATH 1113 or permission of the instructor.

MUSIC (DIVISION OF HUMANITIES AND FINE ARTS)

MUSC 1100 Music Appreciation
This course is comprised of an introduction to music understanding with emphasis on identifying the basic elements of music, historical perspectives and styles of music, discussing these from the listener’s point of view and relating them to other arts and cultures as appropriate. No prerequisite.

MUSC 1101 Fundamentals of Music
This course examines the basic concepts and the most fundamental elements of music notation. No prerequisite.

MUSC 1105 AMSC Choir
The Atlanta Metropolitan State College Choir is a mixed choral group devoted to the study and performance of all types of choral music. Musical styles include selections from traditional classical choral repertoire, popular music, show tunes, spirituals and gospel. This course may be repeated for credit. Choir is the necessary lab experience for music majors. No prerequisite.

MUSC 1106 Class Piano
Piano literature and technique are taught through class instruction. Limited enrollment. This course may be repeated for credit. No prerequisite.

MUSC 1111 Music Theory I
The first of a three-semester sequence, MUSC 1111 is a correlated study of rhythmic, melodic, and harmonic aspects of music part-writing and analysis. Topics include a review of the rudiments of notation, intervals, triads, and
seventh chords in major and minor keys. Sight singing, ear training, dictation and keyboard skills are included as appropriate. Prerequisite: Instructor approval, MUSC 1101 or MUSC 1120.

**MUSC 1112 Music Theory II**

A continuation of MUSC 111. Topics include part-writing and analyzing four part choral textures as well as connection of basic triad and seventh chord structures in cadential and harmonic progressions. The use of triads and seventh chords and their inversions are also considered. Sight singing, ear training, dictation, and keyboard skills are included as appropriate. Prerequisite: MUSC 1111.

**MUSC 1114 Class Voice**

This preparatory group voice class introduces the fundamentals of vocal training: breath control, tone production, diction and interpretation. The course may be repeated for credit. No prerequisite.

**MUSC 2111 Music Theory III**

This course is a continuation of MUSC 1112. Topics include embellishing chords, diatonic seventh chords, secondary functions, and modulation. Neapolitan chords, augmented sixth chords, and ninth, eleventh and thirteenth chords, sight-singing, ear training, dictation and keyboard skills are included as appropriate. Prerequisite: MUSC 1112.

**MUSC 2113 Introduction to Recording and Production**

Introduction to Recording and Production is an introduction to modern recording techniques and applications of recorded sound. Students will be exposed to professional recording studio procedures, including audio theory, psychoacoustics, console operation, microphone technique, monitor systems and noise reduction. Prerequisite: MUSC 1100, MUSC 1101, or MUSC 1111.

**MUSC 2114 Introduction to Music Management**

Introduction to Music Management is a survey of the various management fields in music, including recording studio management, artist management, and other business applications in music. Student will learn introductory techniques in contract negotiations, booking, promotions, securing employment in the music business, and the other music business skills. Prerequisite: MUSC 1100, MUSC 1101 or MUSC 1111.

**MUSC 2115 Sight-singing and Eartraining**

Sight-singing and eartraining focuses on the development of the student’s ability to read, comprehend, and perform standard music notation at sight, without rehearsal. Studies include scales, interval recognition, sight-singing, exercises in rhythmic, melodic, and harmonic dictation. Actual examples from music literature are perused. Prerequisite: MUSC 1101 or MUSC 1111.
APPLIED MUSIC COURSES (DIVISION OF HUMANITIES AND FINE ARTS)

Applied Music courses, listed below, are designed for music majors but are open to any student enrolled in Atlanta Metropolitan State College. Additional Applied Music fees are charged (see the Financial Information section of this Catalog for further information and the policy on refunds).

MUSC 1115 Applied Voice I 0-1-1
Appropriate vocal literature and technique are taught through one 30-minute private lesson per week arranged by the instructor and student. This course may be repeated for credit. Prerequisite: Ability to read music and match pitch as determined by the instructor.

MUSC 1116 Applied Voice II 0-2-2
Appropriate vocal literature and technique are taught through one 60-minute private lesson per week arranged by the instructor and student. This course may be repeated for credit. Prerequisite: Instructor approval.

MUSC 1120 Applied Piano I 0-1-1
Appropriate piano literature and technique are taught through one 30-minute private lesson per week arranged by the instructor and student. This course may be repeated for credit. No prerequisite.

MUSC 1121 Applied Piano II 0-2-2
Appropriate piano literature and technique are taught through one 60-minute private lesson per week arranged by the instructor and student. This course may be repeated for credit. No prerequisite.

MUSC 1130 Applied Strings I 0-1-1
Appropriate string literature and technique are taught through one 30-minute private lesson per week arranged by the instructor and student. This course may be repeated for credit. No prerequisite.

MUSC 1131 Applied Strings II 0-2-2
Appropriate string literature and technique are taught through one 60-minute private lesson per week arranged by the instructor and student. This course may be repeated for credit. No prerequisite.

MUSC 1135 Applied Woodwinds I 0-1-1
Appropriate woodwind literature and technique are taught through one 30-minute private lesson per week arranged by the instructor and student. This course may be repeated for credit. No prerequisite.
MUSC 1136 Applied Woodwinds II 0-2-2
Appropriate woodwind literature and technique are taught through one 60-minute private lesson per week arranged by the instructor and student. This course may be repeated for credit. No prerequisite.

MUSC 1140 Applied Brass I 0-1-1
Appropriate brass literature and technique are taught through one 30-minute private lesson per week arranged by the instructor and student. This course may be repeated for credit. No prerequisite.

MUSC 1141 Applied Brass II 0-2-2
Appropriate brass literature and technique are taught through one 60-minute private lesson per week arranged by the instructor and student. This course may be repeated for credit. No prerequisite.

MUSC 1145 Applied Percussion I 0-1-1
Appropriate percussion literature and technique are taught through one 30-minute private lesson per week arranged by the instructor and student. This course may be repeated for credit. No prerequisite.

MUSC 1146 Applied Percussion II 0-2-2
Appropriate percussion literature and technique are taught through one 60-minute private lesson per week arranged by the instructor and student. This course may be repeated for credit. No prerequisite.

NURSING (DIVISION OF SCIENCE, MATHEMATICS AND HEALTH PROFESSIONS)

NURSING 1105 Introduction to Nursing 3-0-3
This course provides a general introduction to nursing and the scope of the professional practice of nursing. It is designed for students considering nursing as an academic option. Prerequisites: Exit or exemption from Learning Support English and Reading.

ORIENTATION (DIVISION OF SOCIAL SCIENCES)

ORNT 1100 Seminar in Personal and Academic Dev. 1-0-1
ORNT 1100 is designed to enhance students’ personal development and to provide students with a holistic understanding of what college requires. Students explore academic majors, career opportunities, and affective issues related to personality, learning strategies and academic performance. This course must be completed by the end of the second semester of enrollment. No prerequisite.
PHILOSOPHY (DIVISION OF HUMANITIES AND FINE ARTS)

PHIL 2201 Survey of Philosophy 3-0-3
This course is designed to introduce students to problems which are basic to human existence, thereby enhancing students’ awareness of themselves and their world. Main currents in contemporary philosophy are examined in light of their historical origins as related to the arts, sciences and religion. Prerequisites: Exit or exemption from Learning Support Reading and English.

PHIL 2210 Logic and Critical Thinking 3-0-3
This course provides for the development of practical, symbolic logical skills with emphasis on the composition of argumentative essays. Students study logical definitions, fallacious and deceptive arguments. Assigned readings are selected from a variety of contemporary social, cultural and political issues as well as from classic western philosophers. Prerequisites: Exit or exemption from Learning Support Reading and English.

PHYSICAL EDUCATION (DIVISION OF SOCIAL SCIENCES)

PHED 1101 Wellness 3-0-3
This course presents a holistic approach to wellness with emphasis on nutrition, exercise, and coping with stress. No prerequisite.

PHED Activity Courses 0-2-1
These courses include skill development in the sport and an overview of the history of the sport. For students requiring restrictive activity, as recommended by a physician, appropriate modifications of the activity will be made. No prerequisite.

1110 Bowling I
This course will provide beginning bowling skills and development, with an understanding of rules, regulations and an overview of the history of the sport. For students requiring restrictive activity as recommended by a physician, the appropriate modification of the activity will be made. (A nominal fee may apply at the activity site.)
Prerequisite: None

1112 Badminton
This course will provide beginning badminton skills and development, with an understanding of rules, regulations and an overview of the history of the sport. For students requiring restrictive activity as recommended by a physician, the appropriate modification of the activity will be made.
Prerequisite: None
1113 Basketball
This course will provide beginning basketball skills and development, with an understanding of rules, regulations and an overview of the history of the sport. For students requiring restrictive activity as recommended by a physician, the appropriate modification of the activity will be made.
Prerequisite: None
1114 Tennis for Beginners
This course is designed to develop the basic fundamental skills and understanding of the game of tennis and how it may enhance and improve one’s physical, mental and emotional state. For students requiring restrictive activity as recommended by a physician, the appropriate modification of the activity will be made.
Prerequisite: None

1116 Volleyball
This course will provide beginning volleyball skills development, with emphasis on the basic fundamentals and rules governing the game with an overview of its history. For students requiring restrictive activity as recommended by a physician, the appropriate modification of the activity will be made.
Prerequisite: None

1117 Figure Control
This course is designed to provide skilled development in body sculpturing as it relates to physical, mental and emotional development or total fitness. For students requiring restrictive activity as recommended by a physician, the appropriate modification of the activity will be made.
Prerequisite: None

1119 Golf
This course is designed to provide the student with the fundamental skills and understanding of the game of golf and how it enhances one’s physical, mental and emotional state. For students requiring restrictive activity as recommended by a physician, the appropriate modification of the activity will be made. (A nominal fee may apply at the activity site.)
Prerequisite: None

1122 Bodybuilding
This course will provide skilled development in body definition and an overview of the history of bodybuilding. For students requiring restrictive activity as recommended by a physician, the appropriate modification of the activity will be made.
Prerequisite: None

1123 Dance
This course will provide skill development in rhythms and dancing with emphasis on movement fitness and an overview of the history of dance and dance styles. For students requiring restrictive activity as recommended by a physician, the appropriate modification of the activity will be made.
Prerequisite: None
1129 Tennis II (Intermediate)
This tennis course is designed to develop strategies as they relate to the skill level of the student and demonstrate how tennis may enhance and improve one’s physical, mental and emotional state. For students requiring restrictive activity as recommended by a physician, the appropriate modification of the activity will be made. Prerequisite: PHED 1114 or Permission of the Instructor.

PHED Physical Fitness Courses 0-2-1
These courses examine the benefits of a healthy lifestyle and aerobic and anaerobic activities that promote physical and cardiovascular fitness. No prerequisite.

1126 Physical Fitness I
This course will provide an understanding that fitness is a physiological or functional capacity that improves the quality of life. Emphasis will be placed on cardiovascular development. For students requiring restrictive activity as recommended by a physician, the appropriate modification of the activity will be made. No Prerequisite.

1127 Physical Fitness II
This course will provide weight training skill development with an understanding of cardio-respiratory endurance, muscular strength and nutritional fitness. For students requiring restrictive activity as recommended by a physician, the appropriate modification of the activity will be made. Prerequisite: None

1128 Physical Fitness III
This course will provide skill development in the area of aerobic fitness, muscle strength, muscle endurance, flexibility and body composition. For students requiring restrictive activity as recommended by a physician, the appropriate modification of the activity will be made. Prerequisite: None

PHED 1133 Adaptive Physical Education 0-3-3
This course is designed for students requiring restrictive activity as recommended by a physician. Remedial exercises or corrective physical education is provided for students needing limited activity, special exercises or resting positions under supervision for specific conditions. No prerequisite.

PHED 2101 Introduction to Physical Education and Health 3-0-3
This course surveys the history, philosophy, objectives and scope of the field of physical education, and introduces career opportunities in physical education, health and recreation. No prerequisite.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHED 2105</td>
<td>Concepts of Health and Safety</td>
<td>3-0-3</td>
<td>This course explores methods of maintaining good physical health, safety in everyday living, and current critical health issues. No prerequisite.</td>
</tr>
<tr>
<td>PHED 2205</td>
<td>Leadership in HPER</td>
<td>3-0-3</td>
<td>This course addresses management theories and philosophies as they apply to leadership positions in health, physical education, and recreation. Topics include control mechanisms, program development, and facility design. No prerequisite.</td>
</tr>
<tr>
<td>PHED 2230</td>
<td>Introduction to Community Recreation</td>
<td>3-0-3</td>
<td>This course is an orientation to the principles of leadership, organizing community resources and collecting data necessary for determining the community’s recreational philosophies. No prerequisite.</td>
</tr>
<tr>
<td>PHED 2231</td>
<td>Principles of Recreation in Modern Society</td>
<td>3-0-3</td>
<td>This course presents the history, principles and techniques of recreational programs in contemporary society. No prerequisite.</td>
</tr>
<tr>
<td>PHED 2232</td>
<td>Personal and Community Health</td>
<td>3-0-3</td>
<td>This course examines the physical, mental, and social aspects of personal and community health problems. No prerequisite.</td>
</tr>
<tr>
<td>PHED 2234</td>
<td>Early Childhood Health and Wellness</td>
<td>3-0-3</td>
<td>The purpose of this course is to enable students to plan, organize and conduct a physical education program for children ages birth to five years. Specific guidelines for the physical activity of children of this age will be developed to address the unique characteristics and needs of the developing child. Students will be provided background knowledge about physical education content, movement concepts and skill themes. They will also be provided with fitness concepts that can be taught to children ages birth to five years.. No prerequisite.</td>
</tr>
<tr>
<td>PHED 2240</td>
<td>First Aid</td>
<td>3-0-3</td>
<td>This course offers instruction in emergency first aid and CPR. Instruction is consistent with the American Red Cross requirements for certification. No prerequisite.</td>
</tr>
<tr>
<td>PHED 2241</td>
<td>Sports Officiating</td>
<td>3-0-3</td>
<td>This course presents rules, practices and skills for officiating in individual and team sports. No prerequisite.</td>
</tr>
<tr>
<td>PHED 2242</td>
<td>Introduction to Body Mechanics</td>
<td>3-0-3</td>
<td>This course provides the student with principles of fitness, including exercise, nutrition, diet, self-analysis, relaxation, posture movement, and sport activity analysis. No prerequisite.</td>
</tr>
</tbody>
</table>
**PHED 2243 Seminar on Recreation** 3-0-3
This course is a study of recreation programs for children, adolescents, the disabled, and senior citizens. No prerequisite.

**PHED 2252 Recreational Internship** 0-3-3
In this course students obtain practical training and experience through placement in recreational facilities and programs. No prerequisite.

**PHED 2253 Low-Organized Games** 3-0-3
This course provides instruction and practice in the basic skills, techniques, and materials used in lead-up activities for elementary grades. No prerequisite.

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**PHYSICAL SCIENCE (DIVISION OF SCIENCE, MATHEMATICS AND HEALTH PROFESSIONS)**

**PHYS 1011 Physical Science I** 3-0-3
Physical science is presented from a historical and humanistic viewpoint for non-science majors. Emphasis is placed on the study of basic concepts using a minimum of mathematics. Topics include fundamental concepts from physics, chemistry and astronomy. Prerequisite: Exit or exemption from Learning Support Reading and Math. Corequisite: PLAB 1011.

*Satisfies College Preparatory Curriculum (CPC) in Science when cross-referenced as PHYS 1010 and PLAB 1010. PHYS 1011 cannot be repeated for credit if taken to satisfy a CPC requirement.

**PLAB 1011 Physical Science I Lab** 0-2-1
This is the laboratory component of PHYS 1011. Lab experiments and activities include: scientific measurement, data analysis, force, velocity, acceleration, Kepler’s Law and Planetary Motion, and Hubble’s Law. Prerequisite: Exit or exemption from Learning Support Reading and Math. Corequisite: PHYS 1011.

*Satisfies College Preparatory Curriculum (CPC) in Science when cross-referenced as PLAB 1010. PHYS 1011 cannot be repeated for credit if taken to satisfy a CPC requirement.

**PHYS 1012 Physical Science II** 3-0-3
This course is a continuation of Physical Science I. Topics include: wave motion, electromagnetism, and atomic theory, structure of matter, quantum theory and nuclear physics. Also included is a study of man’s relationship with his environment, with emphasis on ecological problems. Prerequisite: Exit or exemption from Learning Support Reading and Math.

*Satisfies College Preparatory Curriculum (CPC) in Science when cross-referenced as PHYS 1010 and PLAB 1010. PHYS 1012 cannot be repeated for credit if taken to satisfy a CPC requirement.
PLAB 1012 Physical Science II Lab 0-2-1
This is the laboratory component of PHYS 1012. Lab experiments and activities include: wave motion, magnetic lines of force, Ohm’s Law, reflection, refraction, lenses. Prerequisite: Exit or exemption from Learning Support Reading and Math; corequisite: PHYS 1012.

*Satisfies College Preparatory Curriculum (CPC) in Science when cross-referenced as PLAB1010 and PLAB1012 cannot be repeated for credit if taken to satisfy a CPC requirement.

PHYSICS (DIVISION OF SCIENCE, MATHEMATICS AND HEALTH PROFESSIONS)

PHYS 1111 General Physics I 3-0-3
This is the first in a two-course sequence which provides an introduction to basic physics concepts. Topics include classical mechanics and thermodynamics. Prerequisites: Exit or exemption from Learning Support English and Reading and MATH 1113 or permission of the instructor. Corequisites: PLAB 1111.

PLAB 1111 General Physics I Lab 0-3-1
This is a laboratory to accompany PHYS 1111. Experiments are designed to reinforce lecture concepts. Laboratory topics include measurement, classical mechanics, and thermodynamics. Corequisites: PHYS 1111 or permission of the instructor.

PHYS 1112 General Physics II 3-0-3
This is the second in a two-course sequence which provides an introduction to basic physics concepts. Topics include oscillations, wave motion, electromagnetism, optics, and modern physics. Prerequisites: PHYS 1111 and PLAB 1111 or permission of the instructor. Corequisites: PHYS 1112

PLAB 1112 General Physics II Lab 0-3-1
This is a laboratory to accompany PHYS 1112. Experiments are designed to reinforce lecture concepts. Laboratory topics include wave motion, electricity, magnetism, and optics. Prerequisites: PHYS 1111 and PLAB 1111 or permission of the instructor. Corequisites: PHYS 1112.

PHYS 2211 Principles of Physics I 3-0-3
This is the first in a calculus-based two-course sequence which provides an introduction to basic physics concepts. Topics include classical mechanics and thermodynamics. Prerequisites: Exit or exemption from Learning Support English and Reading and MATH 2201 or permission of the instructor. Corequisites: PLAB 2211.
PLAB 2211 Principles of Physics I Lab 0-3-1
This is a laboratory to accompany PHYS 2211. Experiments are designed to reinforce lecture concepts. Laboratory topics include measurement, classical mechanics and thermodynamics. Corequisites: PHYS 2211 or permission of the instructor.

PHYS 2212 Principles of Physics II 3-0-3
This is the second in a calculus-based two-course sequence which provides an introduction to basic physics concepts. Topics include oscillations, wave motion, electromagnetism, optics, and modern physics. Prerequisites: PHYS 2211 and PLAB 2211 or permission of the instructor. Corequisites: PLAB 2212.

PLAB 2212 Principles of Physics II Lab 0-3-1
This is a laboratory to accompany PHYS 1112. Experiments are designed to reinforce lecture concepts. Laboratory topics include wave motion, electricity, magnetism, and optics. Prerequisites: PHYS 2211 and PLAB 2211 or permission of the instructor. Corequisites: PHYS 2212.

PHYS 2245 Introduction to Undergraduate Research Instrumentation 1-2-2
This course includes a study of the instruments and techniques commonly used in science laboratories. Instrumentation and techniques to be studied include but are not limited to: spectroscopy, chromatography, electrophoresis, pH determination, DNA biotechnology, solution preparation and data collection with remote sensing equipment and techniques. Prerequisite: A grade of “C” or better in a 2000-level biology, chemistry or physics course or permission of the instructor.

PHYS 2246 Topics in Science 1-2-2
This course provides students with opportunities to explore current topics and problems in terms of underlying principles of biology, chemistry and physics. This course is comparative and has an interdisciplinary flavor in that the socioeconomic, cultural, ethical and political aspects of such topics as genetic engineering, environmental chemistry, laser technology and earth systems science are discussed. Prerequisite: A grade of “C” or better in a 2000-level biology, chemistry or physics course or permission of the instructor.

PRIOR LEARNING ASSESSMENT DOCUMENTATION

PLAD 2000 2-0-2
Atlanta Metropolitan State College students may also enroll in PLAD2000 course to document their prior learning. This course teaches students how to prepare and submit a portfolio that documents their prior learning experiences,
competencies, training, and certifications in a way that aligns with specific course learning objectives. Institutional credit only.

POLITICAL SCIENCE (DIVISION OF SOCIAL SCIENCES)

POLS 1101 American Government 3-0-3
This course is a study of the American system of government with emphasis on the structure, functions, institutions, and processes for participation in the American political system. Attention is also focused on Georgia government. This course satisfies the state requirement for study of the United States and Georgia constitutions. (Students given College transfer credit for United States History and American Government earned at non-University System of Georgia institutions may satisfy the United States and Georgia History and United States and Georgia Constitution requirements by taking and passing HIST 2114 (Georgia History) at Atlanta Metropolitan State College.) Prerequisite: Exit or exemption from Learning Support Reading.

POLS 1201 Honors American Government 3-0-3
This course is a study of the American system of government focusing on the structure, institutions, functions and processes for participation in the American political system. Attention is also focused on Georgia government. Emphasis is placed upon critical reading, advanced research papers and reports, and upon student-led discussions. (Students given College transfer credit for United States History and American Government earned at non-University System of Georgia institutions may satisfy the United States and Georgia History and United States and Georgia Constitution requirements by taking and passing HIST 2114 (Georgia History) at Atlanta Metropolitan State College.) Prerequisites: Exit or exemption from Learning Support Reading, English and Mathematics.

POLS 2101 Introduction to Political Science 3-0-3
This course introduces students to political science and its sub-fields, focusing on theories, ideologies, methodologies, foundations, institutions, and organizations. Emphasis is placed on developing and enhancing critical thinking, analysis, writing, and research skills. Prerequisites: Exit or exemption from Learning Support Reading and English.

POLS 2103 Introduction to American Public Policy 3-0-3
This course examines the policy-making process in the United States and the politics of policy-making, including the major actors that impact decision-making. Emphasis is placed on developing and enhancing critical thinking, analysis, writing, and research skills. Prerequisites: Exit or exemption from Learning Support Reading and English.
POLS 2301 Introduction to Comparative Politics 3-0-3
This course introduces students to comparative politics, which is a sub-field of political science. Theories, methodologies, foundations, structures, institutions, functions, implementation, and processes of political systems of the world will be compared and contrasted. Emphasis is placed on developing and enhancing critical thinking, analysis, writing, and research skills. Prerequisites: Exit or exemption from Learning Support Reading and English.

POLS 2401 Global Issues 3-0-3
This course introduces students to global issues and world politics. World issues such as war, hunger, poverty, globalization, trade, global warming, genocide, immigration, human rights, population control, terrorism, natural resources, development, and world politics will be compared and contrasted. Post-industrial, industrializing, and developing countries, as well as multi-national corporations, world organizations, trade organizations, and trading blocs will also be analyzed. Emphasis is placed on developing and enhancing critical thinking, analysis, writing, and research skills. Prerequisites: Exit or exemption from Learning Support Reading and English.

POLS 2601 Introduction to Public Administration 3-0-3
This course introduces students to public administration, which is a sub-field of political science. Administrative aspects of political science will be examined, focusing on concepts and methods used to analyze public policy, political systems, governmental structures, bureaucracy, government and public management, and public policy planning. Research will focus on public policy issues that impact the rapid growth that has been experienced in Georgia, especially the Atlanta metropolitan area, over the past two decades. Prerequisites: Exit or exemption from Learning Support Reading and English.

PSYCHOLOGY (DIVISION OF SOCIAL SCIENCES)

EDPY 2040 Educational Psychology 3-0-3
This course consists of the application of psychological research related to learner characteristics, the educational environment, teaching practices and learning efficiency and effectiveness. It also focuses on constructs and research such as motivation, behavioral principles, observation and measurement of student behaviors related to academic and social learning, methods of measure application to the classroom, current research that defines best teaching practices and classroom management and disciplinary practices. Prerequisite: PSYC 1101 Introduction to General Psychology and/or EDUC 1105 Introduction to Foundations of Education in American Society or EDUC 2101 Introduction to Education.
PSYC 1101 Introduction to General Psychology 3-0-3
This course provides a broad survey of the major topics in psychology, including, but not limited to, research methodology, biological and social factors influencing behavior, development, learning, memory, personality, and abnormality. Prerequisites: Exit or exemption from Learning Support Reading.

PSYC 2101 Introduction to the Psychology of Adjustment 3-0-3
This course consists of an introductory examination of the applied psychological theory and research concerning mental health and well-being. Prerequisites: Exit or exemption from Learning Support Reading and PSYC 1101.

PSYC 2102 Psychology of Child Development 3-0-3
This course provides an introduction to child development from birth to adolescence. The nature of developmental changes during infancy and childhood are discussed, as well as theory, research methods and the interpretation of empirical findings. Prerequisites: Exit or exemption from Learning Support Reading English and Math.

PSYC 2103 Human Growth and Development 3-0-3
This course is an introductory, non laboratory-based examination of human development across the life span with emphasis on normal patterns of physical, cognitive, and social development. Prerequisites: Exit or exemption from Learning Support Reading and PSYC 1101.

PSYC 2201 Honors Introduction to General Psychology 3-0-3
This Honors course offers an intense examination of major historical and contemporary theories in psychology. Prerequisites: Exit or exemption from Learning Support Reading, English and Mathematics.

PSYC 2211 Introduction to Abnormal Psychology 3-0-3
This course emphasizes behavioral and mental disorders, their distribution, sources, symptoms, life history, and treatment. Prerequisites: Exit or exemption from Learning Support Reading and PSYC 1101.

PSYC 2212 African American Psychology 3-0-3
This course examines issues related to African American personality development and well-being, as well as social, psychological, political, and historical causes and consequences of racism, prejudice, bigotry, discrimination, and ethnocentrism. Prerequisites: Exit or exemption from Learning Support Reading and PSYC 1101.
READING (DIVISION OF HUMANITIES AND FINE ARTS)

READ 0099 Reading Foundations II 4-0-4
Reading 0099 is an exit-level course designed to reinforce vocabulary, inference, critical reading and study skills. The course includes classroom instruction and individualized computer laboratory practice using computer-assisted instructional materials. Prerequisite: Satisfactory score on the COMPASS Placement Examination. Institutional credit only.

READ 0099E Reading Foundations II (ESL) 4-0-4
Reading 0099E is an exit-level course intended for ESL students and designed to reinforce vocabulary, inference, critical reading skills, and study skills. Problems difficult for ESL students, such as idiomatic English, stylistic techniques, and structural patterns within longer texts, receive attention. Students examine assumptions and thinking that underlie passages and consider cultural contexts as part of meaning. The course includes classroom instruction and individualized laboratory practice using computer-assisted instructional materials. Prerequisite: A satisfactory score on the COMPASS Placement Examination. Institutional Credit Only.

RELIGION (DIVISION OF HUMANITIES AND FINE ARTS)

RELI 2201 Introduction to Religious Studies 3-0-3
This course introduces the study of religion as a personal, cultural and cross-cultural phenomenon. Attention is given to the relationship between religious writings and religious beliefs, to the development of religious traditions, and to the impact of religious ideas on personal and social values in the United States. Prerequisites: Exit or exemption from Learning Support Reading and English.

SOCIOLOGY (DIVISION OF SOCIAL SCIENCES)

SOCI 1101 Introduction to Sociology 3-0-3
This course surveys the discipline of sociology and its means of explaining patterns found in social behavior incorporating a global perspective. Topics covered include: marriage and family relationships, class and race relations, deviant social behaviors, world population issues, and other modern global social problems. Prerequisite: Exit or exemption from Learning Support Reading and English.

SOCI 1160 Introduction to Social Problems 3-0-3
This course presents data and theories to analyze selected major social problems confronting American society. Prerequisite: Exit or exemption from Learning Support Reading and English.
SOCI 1201 Honors Introduction to Sociology 3-0-3
This course provides an in-depth survey of the discipline of sociology. Topics include sociological theory, methods, and selected substantive issues. Emphasis is placed upon critical reading, advanced research papers and reports, and upon student-led discussions. Prerequisite: Exit or exemption from Learning Support Reading, English and Mathematics.

SOCI 1206 Introduction to Gerontology 3-0-3
This course is an introduction to the sociological study which examines institutional and social interactive factors involved in the process of aging in our society. Prerequisite: Exit or exemption from Learning Support Reading and English.

SOCI 1260 Global Problems 3-0-3
This course examines the various dimensions of globalization, and the social problems of inequality, war and violence, and environmental sustainability that are occurring on a global scale. Prerequisite: Exit or exemption from Learning Support Reading and English.

SOSC 2101 Introduction to African American Studies 3-0-3
This course provides an interdisciplinary analysis of the forces which shaped the historical and contemporary experiences of African Americans, as well as the development and functioning of selected African American social institutions. Prerequisites: Exit or exemption from Learning Support Reading and English.

SOCI 2201 Introduction to Urban Studies 3-0-3
This course offers an introduction to the study of: the process of urbanization and its consequences on people and society as seen by comparing lifestyles along the rural-urban continuum; the relationship of the emergence of the city to events of historical, social, and political economic significance; and the nature and solution of urban problems. Prerequisite: Exit or exemption from Learning Support Reading and English.

SOCI 2216 Introduction to Urban Services 3-0-3
This course provides an overview of human and urban services, their role and delivery, and the types of agencies and their functions. Prerequisites: Exit or exemption from Learning Support Reading and English.

SOCI 2217 Problems In Urban Life 3-0-3
This course is a study of selected topics and conditions in the urban environment with emphasis upon an analysis of contemporary problems in urban societies and possible solutions. Prerequisites: Exit or exemption from Learning Support Reading, English, and SOCI 2201.
**SOC 2250 Society, Culture and Personality Stress** 3-0-3
This course provides an introduction to social institutions as expressions of cultures, to patterns and quality of social relationships evolved through institutions, and to their influences on personality status. Prerequisites: Exit or exemption from Learning Support Reading and English.

**SOC 2283 Introduction to Human Sexuality** 3-0-3
This course introduces psychological, social, and cultural dimensions of human sexuality through study of religious philosophies and the theories and findings of both natural science (biology) and the social and behavioral sciences (anthropology, sociology, and psychology). Prerequisites: Exit or exemption from Learning Support Reading and English.

**SOC 2293 Introduction to Marriage and the Family** 3-0-3
This course offers an introduction to the structure, processes, problems, and adjustments of contemporary marriage and family life. Prerequisites: Exit or exemption from Learning Support Reading and English.

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**SOCIAL SCIENCE (DIVISION OF SOCIAL SCIENCES)**

**SOSC 1101 Introduction to the Social Sciences** 3-0-3
This course is an introduction to the disciplines of the social sciences with emphasis on the distinctiveness and interconnections of the disciplines. Prerequisite: Exit or exemption from Learning Support Reading.

**SOSC 2101 Introduction to African American Studies** 3-0-3
This course provides an interdisciplinary analysis of the forces which shaped the historical and contemporary experiences of African Americans, as well as the development and functioning of selected African American social institutions. Prerequisites: Exit or exemption from Learning Support Reading and English.

**SOSC 2125 Introduction to Social Science Research Methods** 3-0-3
This course provides a conceptual and practical introduction to social science research methods. Prerequisites: Exit or exemption from Learning Support Reading, English, and Mathematics.

**SOSC 2225 Statistics for the Social Sciences** 3-0-3
This course examines descriptive and inferential methods of statistical analysis with emphasis on the application and interpretation of statistics in social science disciplines. Prerequisite: MATH 1111.

**SOSC 2245 Introduction to Women’s Studies** 3-0-3
This course examines the current status of theory and research on women’s psychology, sociology, educational and economic experiences and behaviors.
Emphasis is placed on class, racial, and ethnic variations in experience. Coverage includes historical perspectives, and issues of choice as they relate to stereotypes, status, psychological adjustment, and diversity in women. Gender differences and the theories advanced to understand such differences are evaluated critically. Prerequisites: Exit or exemption from Learning Support Reading, English and Math, PSYC 1101 Introduction to General Psychology and/or SOCI 1101 Introduction to Sociology.

SOCIAL WORK (DIVISION OF SOCIAL SCIENCES)

SOWK 2000 Introduction to Social Work 3-0-3
This course surveys the history and philosophy of social work and social services, as well as the methodology and techniques in case work, group work, and community organizations. Emphasis is placed on the various types of social workers, their duties and responsibilities. Prerequisites: Exit or exemption from Learning Support Reading and English.

SOWK 2100 Introduction to Social Welfare 3-0-3
This course provides an overview of the public welfare field, its origins, historical development, functions, and contemporary concerns. Emphasis is on the practice of social work in public and private welfare agencies. Prerequisites: Exit or exemption from Learning Support Reading and English.

SOWK 2200 Human Behavior in the Social Environment 3-0-3
This course represents a foundation for developing social work techniques and practices with individuals, families and groups. Students will examine human behavioral theory and social institutional applications in current social welfare practices. The intent is to develop an initial working repertoire of social work skills used in various direct family and individual, clinical, and community practice applications. Prerequisites: Exit or exemption from Learning Support Reading and English and PSYC 1101 Introduction to General Psychology and/or SOCI 1101 Introduction to Sociology, and SOWK 2000 Introduction to Social Work.

SPANISH (DIVISION OF HUMANITIES AND FINE ARTS)

SPAN 1001 Elementary Spanish I 3-0-3
This course is designed to introduce students to Spanish, using all four skills: listening, speaking, reading and writing. The culture of Spanish-speaking regions is integrated into the course. Prerequisite: Exit or exemption from Learning Support English and Reading. Not open to native speakers of Spanish. Note: This course will not meet degree requirements at some University System of Georgia institutions.
*Satisfies College Preparatory Curriculum (CPC) requirement in Foreign Language when cross-referenced as SPAN 1000 but cannot be repeated for credit.

**SPAN 1002 Elementary Spanish II** 3-0-3
This course continues and completes the introduction of major grammatical points begun in SPAN 1001. All four language skills are included. Prerequisites: Exit or exemption from Learning Support Reading and English, and Spanish 1001, or one year of high school Spanish, or the equivalent. Not open to native speakers of Spanish.

**SPAN 2001 Intermediate Spanish I** 3-0-3
This course is a continuation of SPAN 1002, with an emphasis on advanced grammar skills. Extensive speaking and reading comprehension are practiced. Prerequisite: SPAN 1002, or two years of high school Spanish, or the equivalent.

**SPAN 2002 Intermediate Spanish II** 3-0-3
This course continues the work of SPAN 2001, including extensive practice in reading, writing and true conversational Spanish. Spanish culture is also emphasized. Outside readings are used. Prerequisite: SPAN 2001, or three years of high school Spanish, or the equivalent.

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**THEATER (DIVISION OF HUMANITIES AND FINE ARTS)**

**THEA 1100 Theater Appreciation** 3-0-3
This course provides a survey and critical appreciation of theater. It brings together historical perspectives, basic elements of theater, and critical analysis; emphasis is placed on developing a sense of theater aesthetics. No prerequisite.

**THEA 1105 Performance Studies** 3-0-3
This course provides students with an opportunity to select, interpret and present various styles of prose and poetry. Presentational skills focus on voice and breath. No prerequisite.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRJU 3420</td>
<td>Criminal Profiling and Victimology</td>
<td>3</td>
</tr>
<tr>
<td>CRJU 3520</td>
<td>Economic Crime Law and Investigation</td>
<td>3</td>
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**Area H: Senior Year Course Requirements**

**Required:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CRJU 4126</td>
<td>Institutional Treatment of Criminal Offenders</td>
<td>3</td>
</tr>
<tr>
<td>CRJU 4801</td>
<td>Restorative Justice</td>
<td>3</td>
</tr>
<tr>
<td>CRJU 4999</td>
<td>Criminal Justice Senior Capstone</td>
<td>3</td>
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</table>

**Electives – Choice of 21 hours from the following courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CRJU 4101</td>
<td>Technical Writing in Criminal Justice</td>
<td>3</td>
</tr>
<tr>
<td>CRJU 4125</td>
<td>Community Based Corrections</td>
<td>3</td>
</tr>
<tr>
<td>CRJU 4305</td>
<td>Cybercrime</td>
<td>3</td>
</tr>
<tr>
<td>CRJU 4401</td>
<td>Police Systems in the United States</td>
<td>3</td>
</tr>
<tr>
<td>CRJU 4426</td>
<td>Civil Liberties</td>
<td>3</td>
</tr>
<tr>
<td>CRJU 4600</td>
<td>Ideological Violence and Law Enforcement</td>
<td>3</td>
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<tr>
<td>CRJU 4701</td>
<td>Comparative Criminal Justice Systems</td>
<td>3</td>
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<td>CRJU 4900</td>
<td>Law Enforcement Initiatives</td>
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</tr>
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</tr>
<tr>
<td>CRJU 4902</td>
<td>Criminal Justice Internship 2</td>
<td>3</td>
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</tbody>
</table>

Subtotal Areas G – H: 60 semester hours

TOTAL REQUIRED PROGRAM HOURS: 120 semester hours

Note: Taking courses out of sequence may delay the semester in which you graduate.

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**COURSE DESCRIPTIONS**

Understanding Course Descriptions

Each course is assigned a number according to the following system. Courses numbered below 1000, such as READ 0099, ENGL 0099 and MATH 0097, are for institutional credit only. They do not count toward meeting the College’s degree requirements, nor are they transferable for degree credit at other colleges in the University System of Georgia. Courses numbered 1000-1149 and 2000-2499 are
designed primarily for credit in transfer programs, but are also acceptable in a number of career programs. Courses numbered 1500-1999 and 2500-2999 are designed primarily for career programs and are unlikely to be accepted as transfer courses.

Opposite each course title, at the right side of the page, are three code numbers, such as 2-1-3. The first number indicates the number of regular lecture hours for the course per week; the second number indicates the number of laboratory hours per week; and the third number indicates the hours of credit awarded for the successful completion of the course. The code numbers 2-1-3 indicate that the course has two regular lecture hours per week, has one hour of laboratory work, and awards three semester hours of credit.

The College reserves the right to cancel courses for which there is insufficient enrollment.

ACCOUNTING (DIVISION OF BUSINESS AND COMPUTER SCIENCE)

ACCT 2101 Principles of Accounting I 3-0-3
This course is a study of the underlying theory and application of financial accounting concepts. The approach focuses from external financial reporting perspective. The course incorporates real world applications, including on an actual financial statements. Specifically, the course concentrates on the planning, performing, and evaluating aspects of the accounting operating processes and includes translating business activities into accounting information and solving operating problems using information from the accounting system. Prerequisite: Exit or exemption from Learning Support, CISM 2101, MATH 1111, MATH 1112 or MATH 1113 with a grade of ‘C’ or better.

ACCT 2102 Principles of Accounting II 3-0-3
This course is a continuation of financial accounting concepts and basic managerial accounting concepts. The course focuses on business processes and examines business activities from both an external, financial reporting perspective and an internal, managerial accounting decision making perspective. It incorporates real world applications to reinforce the relevance of topics to real business situations and to promote student interest. Specifically, the course concentrates on debt and equity financing, financial statement analysis, cost allocation and
control, performance evolution, and budgeting; and how they relate to business organization and its strategy. Prerequisite: ACCT 2101 with a grade of "C" or above.

**ACCT 2210 Computerized Acct. for Small Business**  
3-0-3  
This course instructs the student in the use of a number of accounting software packages, including General Ledger, Accounts Payable, Accounts Receivable, Payroll, Inventory and Income Taxes. Students also develop applications using electronic spreadsheets. Prerequisite: ACCT 2102.

**ACCT 2225 Federal Income Taxation I**  
3-0-3  
This course is an introduction to Federal income tax fundamentals as they apply to individuals, partnerships, corporations and other forms of business organizations. Prerequisite: ACCT 2102.

**ACCT 2226 Federal Income Taxation II**  
3-0-3  
This course provides in-depth treatment of taxation as it applies to partnerships and corporations. Prerequisite: ACCT 2225.

**ACCT 2230 Intermediate Accounting I**  
3-0-3  
This course examines the generally accepted accounting principles for assets and liabilities along with related revenue and expense implications. The authoritative literature is also introduced and alternative concepts are discussed. Prerequisite: ACCT 2102.

**ACCT 2231 Intermediate Accounting II**  
3-0-3  
This course examines the generally accepted accounting principles for the owner’s equity in business organizations, pensions, leases, income taxes, accounting changes and the effects of changing price levels. The authoritative literature is also discussed, along with alternative concepts. Prerequisite: ACCT 2230.

**ACCT 2233 Cost/Managerial Accounting**  
3-0-3  
This course is an introduction to cost accounting principles and practices. The course also covers approaches to providing accounting information for effective management of profit and non-profit organizations. Prerequisite: ACCT 2102.

**ACCT 2234 Auditing**  
3-0-3  
This course is the study of the principles of internal and independent auditing, the criteria for establishment of internal controls, and the effect of these controls on the audit and reporting process. Prerequisite: ACCT 2230.
AMSC INSTITUTIONAL REQUIREMENT (DIVISION OF SOCIAL SCIENCES)

AMIR 1001 Thinking, Learning, and Communicating in Contemporary Society 4-0-4
This course cultivates habits that strengthen critical thinking, reading, and speaking, and fosters an increased understanding of the individual’s role and responsibility in the learning process. Using interdisciplinary themes and various instructional technologies, students examine and convey the logic of their thinking in writing and oral form. Prerequisite: Exit or exemption from Learning Support Reading and English.

ANTHROPOLOGY (DIVISION OF SOCIAL SCIENCES)

ANTH 1102 Introduction to Anthropology 3-0-3
An introduction to the discipline of anthropology, this course examines the origin and the physical, behavioral, social, and cultural development of human beings. Prerequisite: Exit or exemption from Learning Support Reading and English.

ANTH 2105 Prehistoric Peoples and Cultures 3-0-3
Emphasizing culture, ethnicity and race, this course traces the emergence of major civilizations in Africa, Asia, Europe and the Americas from the emergence of Homo sapiens to the advent of written history. Prerequisite: Exit or exemption from Learning Support Reading.

ART (DIVISION OF HUMANITIES AND FINE ARTS)

ARHS 2201 Art History Survey 3-0-3
This course presents the history of Western art from prehistoric times to the Renaissance through the study of paintings, sculpture, architecture, and their relationship to changing cultural backgrounds. No prerequisite.

ARTS 1010 Drawing I 1-2-3
Drawing I provides an introduction to the techniques, materials, and principles of drawing. This course develops basic drawing skills and understanding of visual language through studio instruction/lecture. Concepts introduced are applied to still life, landscape, and the figure through experimentation with pencil, charcoal, ink wash, and color media. Additional studio hours are required. No prerequisite.

ARTS 1011 Drawing II 1-2-3
This course is a continuation of Drawing I. Prerequisite: ARTS 1010.
ARTS 1020 Two-Dimensional Design 1-2-3
This course explores concepts of two-dimensional design and color through projects in a variety of media. Limited computer experiences are included. An oral presentation is required with the final visual presentation. Additional studio hours are required. No prerequisite.

ARTS 1030 Three-Dimensional Design 1-2-3
This course investigates three-dimensional forms and space through the use of the elements and principles of design, using various materials and methods. Additional studio hours are required. No prerequisite.

ARTS 1100 Art Appreciation 3-0-3
A foundation for appreciation of art is presented through the study of art terminology, art forms, materials, and techniques. This course surveys the history of art through painting, sculpture and architecture from prehistoric times through the present. Lectures, slides, films, discussions, field trips, and studio activities are included as appropriate. No prerequisite.

ARTS 2010 Art for Early Childhood 3-0-3
This course is designed for students who are pursuing programs of study in Early Childhood Development Teacher Education. The course focuses on methods and techniques used to encourage creative thinking. Effective use of materials such as poster paint, crayons, collage, watercolors, etc. is explored. No prerequisite.

ARTS 2201 Studies in the Fine Arts II 1-0-1
This course provides an interdisciplinary study of aspects of the fine arts, including but not limited to, investigations of unique foundations in the visual arts, literary arts, and performance arts. Prerequisite: Permission of the instructor.

ARTS 2210 Arts and Crafts 1-2-3
This course explores problems in the design and production of functional crafts. Students experiment with a variety of materials, including but not limited to, yarn, paper, paper-mache and ink. Additional studio hours are required. No prerequisite.

ARTS 2211 The Creative Process 3-0-3
This course provides an overview of the concepts and theories of the creative process through investigations beyond traditional problem-solving approaches. Applications across disciplines are presented. No prerequisite.
ARTS 2220 Introduction to Printmaking 1-2-3
This course introduces various relief printmaking techniques, including monoprints, styrofoam prints, linocuts, and collagraphs. Additional studio hours are required. No prerequisite.

ARTS 2230 Introduction to Ceramics 1-2-3
This course explores problems in design and production of functional and non-functional ceramic works. Hand-building techniques and experience on the potter’s wheel are included. Additional studio hours are required. No prerequisite.

BIOLOGY (DIVISION OF SCIENCE, MATHEMATICS AND HEALTH PROFESSIONS)

BIOL 1101 General Biology I 3-0-3
This is a general course designed to communicate to the non-science major a meaningful understanding of the principles of biology with broad application to other fields and to everyday life. Topics include the physical and chemical basis of life, cellular structure and function, molecular genetics, human genetics, the diversity of life and ecology. Prerequisite: Exit or exemption from Learning Support Reading and English or permission of instructor.

*Satisfies College Preparatory Curriculum (CPC) requirement in Natural Science when cross-referenced as BIOL 1100 and taken with BLAB 1100, the lab portion of this course. BIOL 1101 cannot be repeated for credit if taken to satisfy a CPC requirement.

BLAB 1101 General Biology I Lab 0-2-1
This is the laboratory component of BIOL 1101, designed to provide the non-science major with a greater knowledge and understanding of experimental processes employed in the biological sciences, primarily through a hands-on approach. Prerequisite or corequisite: BIOL 1101 or permission of instructor.

*Satisfies College Preparatory Curriculum (CPC) requirements in Natural Science when cross-referenced as BLAB 1100 and taken with BIOL 1100, the lecture portion of this course. BIOL 1101 cannot be repeated for credit if taken to satisfy a CPC requirement.

BIOL 1102 General Biology II 3-0-3
This course is a continuation of Biology 1101 with emphasis on human biology. Topics include homeostasis, hormonal regulation of metabolism, organ systems of the human body and plant structure and function. Prerequisite: Exit or exemption from Learning Support Reading and English or permission of instructor.
*Satisfies College Preparatory Curriculum (CPC) requirement in Natural Science when cross-referenced as BIOL 1100 and taken with BLAB 1100, the lab portion of this course. BIOL 1102 cannot be repeated for credit if taken to satisfy a CPC requirement.

**BLAB 1102 General Biology II Lab** 0-2-1
The laboratory component of BIOL 1102 emphasizes the study of the human body. Prerequisite or corequisite: BIOL 1102 or permission of instructor.

*Satisfies College Preparatory Curriculum (CPC) requirements in Natural Science when cross-referenced as BLAB 1100 and taken with BIOL 1100, the lecture portion of this course. BIOL 1102 cannot be repeated for credit if taken to satisfy a CPC requirement.

**BIOL 1104 Introduction to Environmental Science** 3-0-3
This course provides an introduction to environmental science. It serves an area D elective for both science and non-science majors. Topics include, but are not limited to biodiversity, evolution, animal behavior, natural resources, alternative energy sources, conservation and preservation of resources, terrestrial and aquatic biomes, pollution, globalization and population dynamics as well as ecology. Prerequisite: Exit or exemption from Learning Support Mathematics, Reading and English.

**BIOL 1107 Principles of Biology I** 3-0-3
This is an introduction to general biological principles, including the physical and chemical nature of protoplasm, biological structure and function, transport of materials, energy transformations, molecular and cellular biology and genetics. This course is primarily intended for science, computer science, mathematics and allied health majors. Prerequisite: Exit or exemption from Learning Support Mathematics, Reading and English.

**BLAB 1107 Principles of Biology Lab I** 0-3-1
This course is the laboratory component of BIOL 1107. Topics include microscopy, biochemistry, cytology and genetics. Prerequisite or corequisite: BIOL 1107 or permission of the instructor.

**BIOL 1108 Principles of Biology II** 3-0-3
This course, a continuation of BIOL 1107, includes the following topics: plant structure and function, developmental hormones and organ systems of the human body. Prerequisite: BIOL 1107/BLAB 1107 or permission of the instructor.

**BLAB 1108 Principles of Biology Lab II** 0-3-1
This is the laboratory component of BIOL 1108. Topics include plant anatomy and physiology, animal tissues and comparative vertebrate anatomy.
Prerequisite: BIOL 1107/BLAB 1107. Corequisite: BIOL 1108 or permission of the instructor.

**BIOL 1109 Principles of Biology III** 3-0-3
This course, a continuation of BIOL 1107, provides an introduction to environmental studies. Topics include classification, biodiversity, evolution, animal behavior and ecology. Prerequisite: BIOL 1107/BLAB 1107 or permission of the instructor.

**BLAB 1109 Principles of Biology Lab III** 0-3-1
This is the laboratory component of BIOL 1109. Topics include biodiversity, evolution, ethology and ecology. Prerequisites: BIOL 1107/BLAB 1107. Corequisite: BIOL 1109.

**BIOL 2203 Plant Science** 3-0-3
This course is a study of plant life with emphasis on structure, functions, identification, economic importance, plant care, gardening and ecology. Prerequisite: Exit or exemption from Learning Support Reading, Mathematics and English. (Students who have not had a vigorous background in Biology are urged to take BIOL 1107/BLAB 1107 before registering for this course.)

**BIOL 2215 Fundamentals of Microbiology** 3-0-3
This course provides a survey of common groups of microorganisms including classification, requirements for growth, host-parasite relationships, pathogenicity, morphology and physiology. Prerequisite: Exit or exemption from Learning Support Reading, Mathematics, and English. (Students who have not had a vigorous background in Biology are urged to take BIOL 1107/BLAB 1107 before registering for this course.)

**BLAB 2215 Fundamentals of Microbiology Lab** 0-3-1
This course is the laboratory component of BIOL 2215. Students learn techniques used to isolate, stain and identify microorganisms based on their morphological and biochemical characteristics. Students are required to demonstrate mastery of these techniques by isolating and identifying unknown bacteria from mixed cultures. Prerequisite or corequisite: BIOL 2215.

**BIOL 2225 Invertebrate Zoology** 3-0-3
This course is an introduction to anatomy, physiology, and evolution of major invertebrate groups. Prerequisite(s): Exit or exemption from Learning Support Reading, English, and Mathematics; BIOL1107; BLAB 1107 or permission of the instructor; Co-requisite(s): BLAB 2225

**BLAB 2225 Invertebrate Zoology Lab** 0-3-1
This course is the laboratory component of BIOL 2225. Topics include surveys of the invertebrate species, macroscopic and microscopic identification of structural
elements and correlation with function. Prerequisite(s): Exit or exemption from Learning Support Reading, English, and Mathematics; Prerequisite or corequisite: BIOL 2225.

**BIOL 2241 Human Anatomy and Physiology I**  
3-0-3  
This course presents the fundamentals of structure and function in the human organism, cell ultrastructure, specialization and metabolism, with an introduction to systems physiology. Prerequisite: Exit or exemption from Learning Support Reading, English, and Mathematics. (Students with a weak background in biology are urged to complete BIOL 1107.)

**BLAB 2241 Human Anatomy and Physiology Lab I**  
0-3-1  
This course is the laboratory component of BIOL 2241 designed to provide laboratory exercises that support the systematic presentation of the lecture. Topics include medical terminology, cells, tissues, skeletal, muscular and nervous systems. Prerequisite or corequisite: BIOL 2241.

**BIOL 2242 Human Anatomy and Physiology II**  
3-0-3  
This course is a continuation of BIOL 2241 including a study of the organs systems associated with integration and control, exchange and transport, the utilization of nutrient material, and an introduction to human reproduction and development. Emphasis is placed on the integration of various systems in performance of specific functions of the entire organism. Prerequisite: BIOL 2241; BLAB 2241.

**BLAB 2242 Human Anatomy and Physiology Lab II**  
0-3-1  
This course is the laboratory component of BIOL 2242. It is designed to provide interactive laboratory exercises that support the systematic presentation of the lecture. Topics include nervous system, special senses, circulatory system, respiratory system, digestive system, urinary system, acid-base balance and the reproductive system. Prerequisite or corequisite: BIOL 2242.

**BIOL 2245 Intro. to Undergrad. Research: Instrumentation**  
1-2-2  
This course is a study of the instruments and techniques commonly used in science laboratories. Instrumentation and techniques to be studied include but are not limited to: spectroscopy, chromatography, electrophoresis, pH determination, DNA biotechnology and solution preparation and data collection with remote sensing equipment and techniques. Prerequisite: A grade of "C" or better in a 200-level biology or chemistry course.

**BIOL 2246 Topics in Science**  
1-2-2  
This course provides students with opportunities to explore current topics and problems in terms of underlying principles of biology, chemistry and physics. This course is comparative and has an interdisciplinary flavor in that the socioeconomic, cultural, ethical and political aspects of such topics as genetic engineering, environmental chemistry, laser technology, and earth systems
science are discussed. Prerequisite: A grade of "C" or better in an introductory biology or chemistry course or permission of the instructor.

**BIOL 3003 Marine Biology**  3-0-3  
This course examines the diversity of marine organisms from the smallest worms to predatory sharks to the largest whales, from the deepest trench to the shore. Students will explore the special adaptations that allow organisms to thrive and create the complex web of ocean life. This course involves a field trip to the Georgia aquarium and a final project that incorporates a student’s interests, majors, and cultural background with course material. Prerequisite(s): Exit or exemption from Learning Support Reading, English, and Mathematics; BIOL1108; BLAB 1108

**BIOL 3007 Embryology**  4-0-4  
This course provides a contemporary approach to the study of Embryology. Classical descriptions of early embryonic development are supplemented with modern findings in genetics, biochemistry and molecular biology to give the student a solid basis for understanding the mechanisms of human development, growth and differentiation. This course will also focus on the anatomy of vertebrate embryogenesis with specific emphasis on humans. Topics include fertilization, implantation, gastrulation, neurulation and organogenesis of a variety of structures. Labs will demonstrate normal development using whole mount specimen and microscope slides, as well as abnormal development through a selection of mutants. Students participate by identifying abnormal development and researching possible causes. Additional lab assignments will be based on readings that are designed to expand student’s appreciation of the larger field of embryology through examination of its history, ethical implications, and the contributions of model organisms. Prerequisite(s): Exit or exemption from Learning Support Reading, English, and Mathematics; BIOL 1108; BLAB 1108; BIOL 4201; BIOL 4000

**BIOL 3114 Principles of Immunology**  3-0-3  
Is an upper level course designed to help students build a solid foundation in basic concepts of immunology including organization, function and regulation of the immune system. Students will be trained to build up background for future assimilation and processing of ever growing mass of new information, to read and understand current literature, to write a scientific report and to attend seminars on topics related to immunology wherever available. Prerequisite(s): Exit or exemption from Learning Support Reading, English, and Mathematics; BIOL 3011

**BIOL 3009 Comparative Anatomy**  3-0-3
A study of the similarities of anatomy and phylogenetic relationships of major vertebrate groups. Specifically, we will compare phylogeny, ontogeny (development) and morphology in groups ranging from protochordates to highly derived vertebrates. Structure of anatomical features, emphasizing how anatomy relates to function, including comparisons of specialized features in organisms adapted to different conditions. Prerequisite(s): Exit or exemption from Learning Support Reading, English, and Mathematics; BIOL 1108; BLAB 1108; Co-Requisite BLAB 3009

**BLAB 3009 Comparative Anatomy Lab** 0-3-1
The laboratories will involve detailed dissection of the lamprey eel (Petromyzon), the dogfish shark (Squalus), the mud puppy (Necturus), and the cat (Felis cattus). Prerequisite(s): Exit or exemption from Learning Support Reading, English, and Mathematics; BIOL 1108; BLAB 1108; Co-requisite: BIOL 3009.

**BIOL 3011 Principles of Microbiology** 0-3-1
This course serves as a rigorous examination of microorganisms including their growth patterns, morphology, and pathogenicity. This course includes a laboratory component covering areas such as structure, nutrition, biochemistry, genetics, and growth of microorganisms. Prerequisite(s): Exit or exemption from Learning Support Reading, English, and Mathematics. Co-requisite: BIOL 3011.

**BIOL 3111 Field Ecology** 4-0-4
Field Ecology is a travel experience course to study the effects of glaciation, soils and climate on plant and animal communities. Indicator species, stability, and succession of communities are compared. Identification of communities, vegetation, and animals is required, with an emphasis on field study. A laboratory component is include with this course, providing the student with the laboratory skills to identify and examine a range of species within varied environments. Prerequisite(s): Exit or exemption from Learning Support Reading, English, and Mathematics.

**BIOL 3113 Nutrition** 3-0-3
Nutrition Science is a course designed to focus on the practical application of scientific concepts. It incorporates the science of the production, processing, evaluation, and utilization of foods and relates scientific concepts and processes to practical applications in nutrition. Prerequisite(s): Exit or exemption from Learning Support Reading, English, and Mathematics; Biol 1107 or Biol 2241.

**BIOL 4000 Molecular Biology** 4-0-4
This course defines the molecules in cells, and describes the major molecular processes that lie behind most biological events (replication of DNA, transcription and processing of RNA, translation of genetic information into proteins), and emphasizes the techniques and experiments that lead to this information. Prerequisite(s): Exit or exemption from Learning Support Reading, English, and Mathematics; CHEM/CLAB 2242; BIOL/BLAB 1108, and BIOL 4201.

**BIOL 3117 Virology**  
3-0-3  
This course covers the advanced study of viruses with regard to the basic, biochemical, molecular, epidemiological, clinical, and biotechnological aspects of animal viruses primarily and bacteriophage, plant viruses, viroids, prions, and unconventional agents secondarily. Specific areas of virology, including viral structure and assembly, viral replication, viral recombination and evolution, virus-host interactions, viral transformation, gene therapy, antiviral drugs, and vaccines, are presented. Prerequisite(s): Exit or exemption from Learning Support Reading, English, and Mathematics; BIOL 3011

**BIOL 3205 Biostatistics**  
3-0-3  
This course introduces statistical concepts and analytical methods as applied to data encountered in biological and biomedical sciences. It emphasizes the basic concepts of experimental design, quantitative analysis of data, and statistical inferences. The course provides students a foundation to evaluate information critically to support research objectives and product claims and a better understanding of statistical design of experimental trials for biological products/devices. Prerequisite(s): Exit or exemption from Learning Support Reading, English, and Mathematics; MATH 1113

**BIOL 3245 Introduction to Research: Instrumentation**  
3-0-3  
This is an introductory course to research processes and design. Also included is a survey of the instruments and techniques commonly used in applied science laboratories. Prerequisite(s): Exit or exemption from Learning Support Reading, English, and Mathematics; A grade of "C" or better in a 2000-level biology or chemistry course

**BIOL 4010 Evolution**  
3-0-3  
Evolution is the central concept in biology. This course examines evolution in historical and cultural contexts. This course aims to understand the major issues in the history and current status of evolutionary biology and explore the implications of evolution for culture. Issues range from controversies over mechanisms of evolution in natural populations to the conflict between creationists and evolutionists. Prerequisite(s): Exit or exemption from Learning Support Reading, English, and Mathematics; BIOL 4201
BIOL 4201 Cellular Biology  4-0-4
This course focuses on examining the essential features that constitute life in terms of the coordinative interactions of small and large molecules. Phenomena explored by students include the cell as common denominator, proteins as agents of specificity, metabolic pathways, cell transport, and the central dogma of molecular genetics and regulation of the flow of information. Prerequisite(s): Exit or exemption from Learning Support Reading, English, and Mathematics; BIOL 1108; BLAB 1108

BIOL 4203 Neurobiology  3-0-3
This course introduces students to the rapidly growing field of neuroscience, which is the study of the biology of the nervous system and its relationship to behavior and disease. The course covers topics ranging from neuronal structure and function, communication at the synapse, membrane receptors and intra- and intercellular signaling systems, to the gross organization of the brain and spinal cord, the processing of sensory information, the programming of motor responses, and higher functions such as learning, memory, cognition, and speech. While the course is introductory in nature, the level of instruction is rigorous and treats many of the topics in some depth. Prerequisite(s): Exit or exemption from Learning Support Reading, English, and Mathematics; BIOL 1107; BLAB 1107; BIOL 1108; BLAB 1108

BIOL 4205 Biochemistry  3-0-3
The course surveys the basic principles of biochemistry and molecular biology, emphasizing broad understanding of chemical events in living systems in terms of metabolism and structure-function relationships of biologically important molecules. This course is suitable for pre-majors, for students interested in careers in medicine, dentistry, pharmacy, medical technology. Prerequisite(s): Exit or exemption from Learning Support Reading, English, and Mathematics; BIOL 1107; BLAB 1107; CHEM 2242; CLAB 2242

BIOL 4207 Medical Microbiology  4-0-4
The fundamentals of microbial physiology, genetics and immunology are presented with important bacterial, viral, parasitic, and mycotic infections discussed from the standpoint of etiology, epidemiology, and pathogenesis and laboratory diagnosis. Participation in laboratory exercises and small group sessions is required and extends throughout the semester. The entire course must be completed to receive credit. Prerequisite(s): Exit or exemption from Learning Support Reading, English, and Mathematics; BIOL 3011

BIOL 4209 Biotechnology  4-0-4
The purpose of this course is to survey the methods and applications of biotechnology and to examine the consequences of developments in this area. This is an area of great public interest with a pressing need for informed debate. The course is organized by topic and covers many aspects of biotechnology, including those that relate to animals, microbes, human health, agriculture and the environment. This course involves a lab component to introduce the students to the various techniques in Biology. Prerequisite(s): Exit or exemption from Learning Support Reading, English, and Mathematics; BIOL 3011; BIOL 4000

BIOL 4211 Principles of Genetics 4-0-4
The course is designed to cover the basic principles of classical and molecular genetics. Model systems for genetic analysis such as Drosophila melanogaster, Neurospora crassa, and peas will be covered. The course covers a detailed description of the structure and function of nucleic acids. This includes, replication and regulation with emphasis on genetic diseases, mutations, and genetic engineering and its applications will be emphasized. Genetics Laboratory work covers Mendelian principles, isolation and characterization of the DNA, polytene chromosomes, karyotyping, Barr bodies, mutagenesis and tests used for detecting mutagens. Prerequisite(s): Exit or exemption from Learning Support Reading, English, and Mathematics; BIOL 1107; BLAB 1107; BIOL 1108; BLAB 1108; and MATH 1113

BUSINESS ADMINISTRATION (DIVISION OF BUSINESS AND COMPUTER SCIENCE)

BUSA 1101 Keyboard Mastery 3-0-3
This course is designed to teach basic keyboarding using the microcomputer. Students are expected to acquire a set level of speed and accuracy using the touch-typing method in a self-paced setting. The course also covers numeric key padding and proper formatting for letters and various other documents. No prerequisite.

BUSA 1105 Introduction to Business 3-0-3
This course is an integrative study of the functional areas of business (finance, operations, marketing, human resources, etc.). No prerequisite.

BUSA 1106 Introduction to Records Management 3-0-3
This course surveys the records management field. Areas of particular concentration are records creation, forms, correspondence, reports, records maintenance, filing systems, storage equipment, vital records, records disposition, retention scheduling and records center operations. Prerequisite: Exit or exemption from Learning Support Reading and English.
BUSA 2102 Intermediate Keyboarding/Typewriting 3-0-3
This course enables students to correctly arrange and type various business forms, tables, manuscripts and letters in various business styles. Students will also be able to type with increased speed and accuracy. Prerequisite: BUSA 1101 or exemption examination.

BUSA 2103 Advanced Keyboarding/Typewriting 3-0-3
This course reviews problem skills with emphasis on special and statistical reports, accounting reports, and legal papers. Students also receive instructions in taking and typing employment tests. Prerequisite: BUSA 2102 or exemption examination.

BUSA 2105 Communicating in a Business Environment 3-0-3
This course emphasizes both interpersonal and organizational communications, including written and oral exercises appropriate to business practices. Prerequisite: Exit or exemption from Learning Support Reading.

BUSA 2106 The Environment of Business 3-0-3
This course is an introduction to the legal, regulatory, political, social, ethical, cultural, environmental and technological issues which form the context for business, including an overview of the impact of demographic diversity on organizations. Prerequisite: Exit or exemption from Learning Support.

BUSA 2111 Legal Typing 2-3-3
This course teaches the student to type with increased speed and accuracy. The student will be able to type various legal forms and documents from the following areas: contracts, automobile negligence, civil actions, partnerships, corporations, wills and probate, criminal actions, real estate and bankruptcy. This course is self-paced and is held in an open lab environment. Prerequisite: BUSA 2102 or exemption examination.

BUSA 2112 Medical and Insurance Typing 2-3-3
This course teaches the student to understand and to type appropriate forms for the following areas: Universal Health Insurance Claim Form, Blue Cross, Medicare, Medi-Medi, CHAMPUS, CHAMPVA, Unemployment Compensation, Worker’s Compensation and Dental Insurance. The student will also be able to code using the CPT/RVS codebooks. Prerequisite: BUSA 2102 or exemption examination.

BUSA 2115 Advanced Secretarial Techniques 2-3-3
This course will give the student the ability to recognize the areas in which he or she can function to relieve management from time-consuming details. The student will be able to make the best use of reference materials; use postal and shipping services; determine work priority schedules; plan meetings, conferences and travel arrangements; assist with collecting and developing various types of materials for reports. Prerequisite: BUSA 2102 or exemption examination.
BUSA 2117 Forms Management and Filing 3-0-3
This course covers the principles and practices of forms management and filing, including approval authority and cost justification; forms and procedure analysis and designs; standards for format and production; printing specifications; and controls and review. Prerequisites: Exit or exemption from Learning Support Reading and English; BUSA 1106 or permission of the instructor.

BUSA 2118 Accession and Disposal of Records 3-0-3
This course covers the principles and practices of records protection and disposition. Topics include acquisition, indexing, references, control, destruction, space conservation, accessibility, load consideration and site selection. Prerequisite: Exit or exemption from Learning Support Reading and English; BUSA 1106.

BUSA 2119 Micrographics 3-0-3
This course is designed to introduce students to the field of micrographics and show its relationship to records management. Students become familiar with microfilming, processing, duplicating, and displaying and reproducing equipment. Micrographics standards utilized in industry are reviewed in the course. Prerequisites: Exit or exemption from Learning Support Reading and English; BUSA 1106.

BUSA 2120 Legal Secretarialship 2-3-3
This course is designed to give students proficiency in general office procedures including telephone technique, postal services, work priority schedules, meeting plans and travel arrangements. The student will be able to keep client financial records and prepare them with little assistance (4 hours weekly). Prerequisite: Exit or exemption from Learning Support Reading and English.

BUSA 2122 Medical Office Procedures 2-3-3
This course will teach the student to handle patient reception, keep an appointment schedule, handle mail, use the telephone efficiently, properly maintain financial records for the medical office and take care of medical supplies and equipment. (4 hours weekly) Prerequisite: Exit or exemption from Learning Support Reading and English.

BUSA 2201 Principles of Management 3-0-3
This course deals with universal concepts of management applicable to all types of enterprises. Students are introduced to basic management philosophies and decision-making processes. Principles of management involving leadership styles, planning, organizing, supervision and control are covered. Prerequisite: Exit or exemption from Learning Support.

BUSA 2202 Management and Supervision 3-0-3
This course introduces the student to general management principles relevant to all types of business enterprises. Supervisory principles in human relations,
grievances, training, evaluations, promotions, quality control and management-employee relations are covered. Prerequisites: Exit or exemption from Learning Support; BUSA 2201.

**BUSA 2203 Personnel Management** 3-0-3
This course introduces students to the methods used in recruiting, selecting, and maintaining an efficient workforce. Topics include employment standards, training, health and safety, and employee services. Job evaluation, interviewing techniques, and application forms are also discussed. Prerequisites: Exit or exemption from Learning Support; BUSA 2201.

**BUSA 2204 Principles of Insurance** 3-0-3
This course provides a study of both life insurance and property-casualty insurance. Other topic areas include the theory of risk (both family and business), operation of the insurance business, and regulation of the insurance industry. Prerequisites: Exit or exemption from Learning Support; ACCT 2101; MATH 1111.

**BUSA 2205 Principles of Marketing** 3-0-3
This course is designed to provide the student with a basic understanding of the framework of the marketing process in product, price, channels of distribution and promotional activities. Prerequisite: Exit or exemption from Learning Support; ACCT 2101 with a grade of ‘C’ or better.

**BUSA 2206 Production Management and Evaluation** 3-0-3
This course provides the student with a general understanding of the organization of large-scale industrial organizations for efficient production methodology and evaluation of the production process to meet contracts, etc. Prerequisites: ACCT 2102; CISM 2101.

**BUSA 2209 Fundamentals of Business Finance** 3-0-3
This course is an introduction to the principles of financial management, including capital budgeting, the cost of capital, acquisition of funds and capital structure strategies for non-financial corporations. Prerequisite: ACCT 2102 with a grade of ‘C’ or better.

**BUSA 2210 Fundamentals of Entrepreneurship** 3-0-3
This course is an introduction to the practical and theoretical considerations involved in entrepreneurship. Course topics include the preparation of business plans, strategies for financing, market assessment, development and protection of business ideas, management and strategies for survival of new business ventures. Prerequisite: ACCT 2101.

**BUSA 2211 Small Business and Venture Management** 3-0-3
This course emphasizes operating and managing the small and new business venture. Topics include finance, financial performance, taxation, systematic
control of resources and business operations, personnel policies, marketing, organizational development, and preparing a comprehensive business plan. Prerequisites: ACCT 2101; BUSA 2201.

**BUSA 2212 Financing New Business Ventures**  3-0-3
This course is a study of successful techniques used to finance new business ventures: new startups, buyouts, and franchises including traditional and creative approaches. Prerequisites: ACCT 2102; BUSA 2209.

**BUSA 2213 Strategies for Entrepreneurship**  3-0-3
This covers the essentials of launching and establishing a business organization with emphasis on new start-ups, buyouts, and franchises. Case studies of successful businesses will be utilized to introduce students to various strategies. Prerequisite: BUSA 2210.

**BUSA 2214 Property Management**  3-0-3
This course is offered to those students who currently own or operate property complexes or who desire to do so. The objective of this course is to give the student a working knowledge of property complexes, property management, accounting, and sociological aspects of human habitation. Prerequisites: ACCT 2101; BUSA 2201 or permission of the instructor.

**BUSA 2215 Principles of Real Estate I**  3-0-3
This course is a survey of real estate covering the real estate market, contracts, ownership, deeds, real estate financing, appraising and development of subdivisions. Prerequisite: Exit or exemption from Learning Support Reading, English and Math.

**BUSA 2216 Principles of Real Estate II**  3-0-3
This course’s topics include financing of real estate, types of lenders, lending laws, real estates and financing, mathematics, settlements, procedures, document recording, appraising, land descriptions, brokerage office accounting and state and federal laws. Prerequisites: Exit or exemption from Learning Support Reading, English and Math; BUSA 2215.

**BUSA 2217 Housing Management I**  3-0-3
This course provides a basic introduction to the management of multi-family housing, particularly public and federally subsidized housing. The student will gain a basic understanding of various federal housing programs, the occupancy cycle and the landlord-tenant relationship. Students will also learn how to maintain the necessary plans, including a budget, which are part of efficient, well-organized housing management. Prerequisites: Exit or exemption from Learning Support Reading, English and Math; BUSA 2201.
**BUSA 2218 Housing Management II** 3-0-3
This course covers in greater detail some of the topics in Housing Management I. Students will learn to perform the management responsibilities related to the occupancy cycle, to work with tenants and staff, and to resolve grievances. Students will also gain a basic working knowledge of maintenance and repair. Prerequisite: BUSA 2217.

**BUSA 2240 Directed Practicum I** 1-5-3
This course gives students the opportunity to gain experience in an area of interest related to their major. It is restricted to career program majors of advanced-level standing. Prerequisite: Permission of the instructor.

**BUSA 2241 Directed Practicum II** 1-5-3
This course is a continuation of BUSA 2240. Prerequisite: BUSA 2240.

**BUSA 2260 Practicum in Computerized Office Systems** 3-0-3
This course is designed to allow the student to select a software application of interest, such as for a medical office, legal office, insurance company, etc., and complete a project in a simulated office setting. Prerequisites: Exit or exemption from Learning Support Reading, English and Math; ITEC 2223; ITEC 2224; ITEC 2226.

**BUSA 2299 Contemporary Business Issues** 3-0-3
This course is a capstone designed to integrate the common body of knowledge gained from the business student’s program of study. The subject matter stresses decision-making and utilizes cases and other experiential methods. Prerequisites: Completion of all other required AREA F courses for the student’s program of study or permission of the instructor.

**CHEMISTRY (DIVISION OF SCIENCE, MATHEMATICS AND HEALTH PROFESSIONS)**

**CHEM 1151 Survey of Chemistry I** 3-0-3
This course introduces the basic concepts and terminology of chemistry. Topics included are the gas laws, stoichiometry and atomic theory. The course is recommended for humanities, social science, allied health and nursing students. Further, science majors with little or no previous background in chemistry are encouraged to take this course in preparation for the science major’s sequence, CHEM 1211-1212. Prerequisite: MATH 1111 or passing score on Math Placement Examination (MPE), or by permission of the instructor. Corequisite: CLAB 1151

*Satisfies College Preparatory Curriculum (CPC) in Natural Science when cross-referenced as CHEM 1100. CHEM 1101 cannot be repeated for credit if taken to satisfy a CPC requirement.*
CLAB 1151 Survey of Chemistry Lab I 0-3-1
This is the laboratory component of CHEM 1151. Experimental topics include: basic laboratory techniques, measurement, chemical reactions, reliability of data, the pH scale, buffer solutions, physiologically important ions, acids and bases. Prerequisite/corequisite: CHEM 1151 or permission of the instructor.

*Satisfies College Preparatory Curriculum (CPC) in Natural Science when cross-referenced as CHEM 1100. CHEM 1101 cannot be repeated for credit if taken to satisfy a CPC requirement.

CHEM 1152 Survey of Chemistry II 3-0-3
This course is a continuation of the general chemistry sequence and includes an introduction to organic and biochemistry. Consumer chemistry topics, such as types of drugs, over-the-counter, legal and illegal, are discussed. Prerequisite: CHEM 1151/CLAB 1151 or permission of the instructor. Corequisite: CLAB 1152.

CLAB 1152 Survey of Chemistry Lab II 0-3-1
This is the laboratory component of CHEM 1152. Experimental topics include: hydrocarbons, alcohols, phenols, mercaptans, carbonyl compounds, preparation and examination of a drug (aspirin), enzymes and chemical reactions. Prerequisite: CHEM 1151/CLAB 1151 or permission of the instructor. Corequisite: CHEM 1152.

CHEM 1211 General Chemistry I 3-0-3
For the student majoring in engineering or science, this course is designed to present the fundamentals of chemistry and demonstrate their application through lecture and problem solving. Topics include: measurements, atomic theory, chemical reactions, equations, stoichiometry, solutions and solution stoichiometry, gases and their properties, quantum theory, the periodic table, bonding theories, oxidation-reduction reaction, an introduction to thermochemistry. Students without prior chemistry courses are urged to take CHEM 1151 and CLAB 1151 prior to enrolling in CHEM 1211. Prerequisite: MATH 1113 or passing score on the Math Placement Examination (MPE). Corequisite: CLAB 1211.

CLAB 1211 General Chemistry Lab I 0-3-1
This is the laboratory component of CHEM 1211. Experimental topics include: basic laboratory techniques, sequence of chemical reactions, chemical periodicity, acid-base titrations, physical measurements, and structure/bonding. Corequisite: CHEM 1211.

CHEM 1212 General Chemistry II 3-0-3
This course is a continuation of CHEM 1212. Topics include: solutions, thermodynamics, kinetics, equilibrium, solubility product constants, ionic equilibria and electrochemistry. Prerequisite: CHEM 1211 or permission of the instructor. Corequisite: CLAB 1212.
CLAB 1212 General Chemistry Lab II  
0-3-1
This is the laboratory component of CHEM 1212. Topics include: acid-base titrations, colligative properties, oxidation-reduction titrations, heats of neutralizations, rates of chemical reactions, preparation and analysis of an inorganic compound. Prerequisite: CHEM 1211/CLAB 1211 or permission of the instructor. Corequisite: CHEM 1212.

CHEM 1213 Analytical Chemistry  
3-0-3
This course is designed for students majoring in science or related fields. Topics include: qualitative and quantitative analysis, experimental error, statistics and data interpretation, applications of spectrophotometry, volumetric analysis, acid-base titration, EDTA titration, electrodes and potentiometry and atomic spectroscopy. Prerequisites: CHEM 1212; CLAB 1212 or permission of the instructor. Corequisite: CLAB 1213.

CLAB 1213 Analytical Chemistry Lab  
0-3-1
This course is the laboratory component of CHEM 1213. Experimental topics include: qualitative analysis, preparation of standardized solutions, EDTA/Iodimetric titrations, coulometric titrations, spectrophotometry, quantitative analysis by gas chromatography or high pressure liquid chromatography. Prerequisites: CHEM 1212, CLAB 1212 or permission of the instructor. Corequisite: CHEM 1213.

CHEM 2241 Organic Chemistry I  
3-0-3
This course provides a study of the chemistry of organic compounds including their physical and chemical properties, synthesis and reaction mechanisms. Topics include bonding theories, organic acids and bases, reaction pathways, stereochemistry, nucleophilic substitution and elimination reactions, alkenes and an introduction to spectroscopy. This course is designed for science majors. Prerequisites: CHEM 1212 CLAB 1212. Corequisite: CLAB 2241.

CLAB 2241 Organic Chemistry I Lab  
0-4-1
This course is the laboratory component of CHEM 2241. It is designed to provide basic laboratory techniques necessary for chemical and physical determination. These techniques include crystallization, melting and boiling point determination, distillation, extraction, column and thin layer chromatography as well as gas chromatography. In addition, the student gains experience in optical activity and resolution/analysis of an enantiomeric mixture. Prerequisite and/or corequisite: CHEM 2241.

CHEM 2242 Organic Chemistry II  
3-0-3
This course is a continuation of the study of the chemistry of carbon compounds. Topics include alcohols, carbonyl compounds, polyenes, enols and enolates, the chemistry of aromatic compounds and mass spectrometry. This course is designed for science majors. Prerequisites: CHEM 2241; CLAB 2241.
CLAB 2242 Organic Chemistry Lab II 0-4-1
The laboratory component of CHEM 2242 and continuation of CLAB 2241. This course provides a study of the techniques using semi-microscale experiments. Experiments include oxidation/reduction, esterification, Grignard Synthesis, Friedel-Crafts Alkylation, Diel-Alder, and Diazo Compound Synthesis. Students use various spectroscopic techniques, including IR, UV-VIS and NMR and GC-MS for structure determination and for identifying unknown liquids and solids. Prerequisites: CHEM 2241; CLAB 2241. Corequisite: CHEM 2242.

CHEM 2245 Intro. to Undergr. Research: Instrumentation 1-2-2
This is a study of the instruments and techniques commonly used in science laboratories. Instrumentation and techniques to be studied include but are not limited to: spectroscopy, chromatography, electrophoresis, pH determination, DNA biotechnology, solution preparation, and data collection with remote sensing equipment and techniques. Prerequisite: A grade of "C" or better in a 200-level biology or chemistry course.

CHEM 2246 Topics in Science 1-2-2
This course provides students with opportunities to explore current topics and problems in terms of underlying principles of biology, chemistry and physics. This course is comparative and has an interdisciplinary flavor in that the socioeconomic, cultural, ethical and political aspects of such topics as genetic engineering, environmental chemistry, laser technology, and earth systems science are discussed. Prerequisite: A grade of “C” or better in an introductory biology or chemistry course or permission of the instructor.

COMMUNICATIONS (DIVISION OF HUMANITIES AND FINE ARTS)

COMM 1100 Human Communications 3-0-3
This course consists of a broad approach to oral communication skills, including intrapersonal, interpersonal, small-group, and public speaking. Emphasis is placed on developing speech communication skills pertinent to survival in today’s success-oriented society, with emphasis on a diversity of contemporary speaker-listener situations. No prerequisite.

COMM 1110 Public Speaking 3-0-3
This course centers on exploration and application of guidelines and principles essential to a variety of formal/professional public speaking modes through preparation and delivery of speeches and the evaluation of these presentations. The organization of materials and the vocal and physical aspects of delivery are emphasized. Prerequisite: ENGL 1101, or COMM 1100, or permission of the instructor.
COMPUTER APPLICATIONS (DIVISION OF BUSINESS AND COMPUTER SCIENCE)

CISM 2101 Computer Information Systems Management 3-0-3
This course introduces students to the board concepts of computer-based Information systems and their applications in the business environment. The course provides hands-on experience in the use of current application software packages (Word processor, Spreadsheet, Database, Presentation software, etc) in processing data. It is intended study for Business Programs and will not satisfy Area D requirements. Prerequisites: Exit or exemption from Learning Support; BUSA 1101 or permission of the instructor.

COMPUTER SCIENCE (DIVISION OF BUSINESS AND COMPUTER SCIENCE)

CSCI 1135 Introduction to Computers 2-2-3
This course is designed to provide an introduction to computer concepts and information processing. The course includes an overview of computer hardware, software, basic networking concepts, history of data processing systems, major trends in information systems, Information Superhighway, social issues and career opportunities in information processing. An integral part of the course is hands-on experience with current applications software in word processing, electronic spreadsheet, database management systems and the internet. Prerequisite: Exit or exemption from Learning Support Reading and Mathematics.

CSCI 1136 Fundamentals of Electronic Spreadsheets 0-3-1
This course provides the knowledge, skills and hand-on experience needed to gain proficiency in using spreadsheet applications in various disciplines. It is designed for both non-science and science majors with special attention given to the preparation of reports and the display of data in different formats. Prerequisite: MATH 1111 or MATH 1113.

CSCI 1137 Fundamentals of Database Management 0-3-1
This course provides the knowledge, skills and hands-on experience needed to gain proficiency in using database applications in various disciplines. It is designed for both non-science and science majors. Prerequisite: MATH 1111 or MATH 1113.

CSCI 1138 Introduction to Cyberspace Technologies 0-3-1
This course provides the knowledge, skills and hands-on experiences needed to gain proficiency in accessing and using the internet and e-mail. It is designed for
both non-science and science majors. Prerequisite: Exit or exemption from Learning Support Reading and Mathematics.

**CSCI 1142 Introduction to C Programming**  
3-0-3  
This course provides an introduction to the fundamentals of the C programming language: variables, input/output statements, operators, loops, decision-making, functions, arrays, strings, files, standard input, binary mode, record input and random access. Prerequisites: Exit or exemption from Learning Support Reading or English; and MATH 1111 or 1113 or 1128 or CSCI 1135 or permission of the instructor.

**CSCI 1143 BASIC: Interactive Programming**  
3-0-3  
This course is designed to develop the student’s ability to program in BASIC in either a business or an educational setting. It has a problem-solving orientation with an emphasis on string manipulations, formatting output, file manipulation and logical structuring of procedures. Students are also introduced to the additional capabilities of a microcomputer (such as graphics and sound) as well as system analysis and design. Prerequisites: Exit or exemption from Learning Support Reading and English; and MATH 1111; CSCI 1135 or MATH 1128 or permission of the instructor.

**CSCI 1145 COBOL: Business Programming**  
3-0-3  
This course provides an introduction to the computer programming file language of COBOL. A structured problem-solving approach is used to present COBOL data structures and data manipulation within business-oriented settings. Prerequisites: Exit or exemption from Learning Support Reading and Mathematics; and MATH 1111 or MATH 1113 or MATH 1128 or CSCI 1135 or permission of the instructor.

**CSCI 1146 Introduction to JAVA Programming**  
3-0-3  
This course provides an introduction to the fundamentals of the JAVA Programming Language, problem solving and algorithm development, simple data types, arithmetic and logic operators, selection structures, repetition structures, text files, arrays, classes, methods, applets and fundamentals of Object-Oriented programming. Prerequisite: Exit from Learning Support Reading, English and Math; MATH 1111, 1113, CSCI 1135 or permission of the instructor.

**CSCI 1301 Computer Science I**  
3-0-3  
This course provides an overview of computers and programming with emphasis on problem-solving and algorithm development. Topics include simple data types, arithmetic and logic operators, selection structures, repetition structures, text files, arrays (one-and-two-dimensional), procedural abstraction and software design, modular programming (including subprograms or the equivalent). The principles/concepts outlined above are implemented using a
high-level programming language. Prerequisite: MATH 1128, CSCI 1142, 1143, 1145 or 1146, satisfactory performance on an exemption exam or permission of the instructor.

**CSCI 1302 Computer Science II** 3-0-3
This course is a continuation of CSCI 1301. Topics include an overview of abstract data types (ADT’s): arrays (multi-dimensional) and records; sets and strings; binary files; searching and sorting; introductory algorithm (including Big-O); recursion; pointers and linked lists; software engineering concepts; and dynamic data structures (stacks, queues, trees). Prerequisite: CSCI 1301 or permission of the instructor.

**CSCI 2212 Computer Graphics** 3-0-3
This course provides an introduction to graphics programming. Topics include graphic presentation of data, interfacing graphics with text, multimedia, and a survey of graphics software packages. Students use a high-level programming language to create a color graphics package. Prerequisite: CSCI 1142 or CSCI 1143, CSCI 1146 or CSCI 1301 or permission of the instructor.

**CSCI 2214 Computer Organization and Assembler Language** 3-0-3
This course provides an introduction to computer structure, machine language instruction, addressing techniques and digital representation of data. Symbolic coding and assembly systems, macro definition and generation, and program segmentation and linkage. Programming assignments to illustrate machine structure and programming techniques. Prerequisite: CSCI 1142, CSCI 1143, CSCI 1145, CSCI 1301, or permission of the instructor.

**CSCI 2216 Survey of Programming Languages** 3-0-3
This course provides a comparative study of programming languages to prepare the student to evaluate such languages. Programming assignments are given to illustrate the features of each language. Prerequisite: CSCI 1142, CSCI 1143, CSCI 1146, CSCI 1301 or permission of the instructor.

**CSCI 2222 Scientific Programming** 3-0-3
This course includes the following topics: file processing operations for sequential and random access files and sorting techniques. Some programming assignments are derived from elementary statistics, combinatorics, matrix operations and systems of equations, iterative methods for solving equations, elements of numerical differentiation and integration, and operations with complex numbers. Prerequisite: CSCI 1142 or CSCI 1301 or permission of the instructor.

**CSCI 2245 File Processing and Database Management** 3-0-3
This course is a continuation of the development of the design, implementation, testing and documentation skills introduced in CSCI 1301, with emphasis on the techniques of algorithm development and structured programming. Topics
include an overview of file processing, data representation and validation, algorithms for report preparations and sequential file processing. Prerequisites: CSCI 1302 or permission of the instructor.

**CSCI 2250 Computer Architecture** 3-0-3
This course provides a study of hardware, software and local area networks. Topics include input/output systems, memory management storage devices, operating systems, microprogramming and microcomputers. Assignments provide hands-on experience. Prerequisite: CSCI 2214 or permission of the instructor.

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**COOPERATIVE EDUCATION (DIVISION OF BUSINESS AND COMPUTER SCIENCE)**

**COED 2281 Cooperative Education**
Cooperative Education students receive and satisfactorily complete an approved work assignment of 8-18 hours per week for one semester hour of credit.

**COED 2282 Cooperative Education**
Cooperative Education students receive and satisfactorily complete an approved work assignment of 19-29 hours per week for two semester hours of credit.

**COED 2283 Cooperative Education**
Cooperative Education students receive and satisfactorily complete an approved work assignment of 30-40 hours per week for three semester hours of credit.

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**CRIMINAL JUSTICE (DIVISION OF SOCIAL SCIENCES)**

**CRJU 1102 Introduction to Criminal Justice** 3-0-3
This course consists of an investigation of the three divisions of the criminal justice system--law enforcement, courts, and corrections--with particular emphasis on the functions and basic problems of each division, as well as the interrelationships between the three divisions. Prerequisite: Exit or exemption from Learning Support Reading.

**CRJU 1105 Introduction to Law Enforcement** 3-0-3
This course presents a review of: (a) patterns of organization of law enforcement in society; (b) foundations, methods, types, and effects of law enforcement agencies at local, state and federal levels; and (c) the relationship between law enforcement and societal problems in ethnic diversity, community relations, and the police subculture. Prerequisite: Exit or exemption from Learning Support Reading.
CRJU 1106 Introduction to Corrections 3-0-3
This course presents an overview of: (a) correctional approaches, with primary emphasis on incarceration; (b) local, state, and federal levels of prison systems; (c) types of prisons; (d) internal structures and procedures for modern prisons; and (d) inmate social structures within male and female institutions. Prerequisite: Exit or exemption from Learning Support Reading.

CRJU 2105 Introduction to Criminology 3-0-3
This course provides an introduction to the definitions, nature, distribution, and causes of crime and criminal behavior. Historical and contemporary theoretical explanations are explored. Prerequisite: Exit or exemption from Learning Support Reading.

CRJU 2108 Introduction to Criminal Law 3-0-3
This course is a survey of the nature and definitions of criminal acts, including a consideration of the elements of crime against the person, crimes against property and crimes against society. Responsibility for criminal conduct is also considered. The Constitutional impact on criminal procedures and the impact of the Supreme Court are also included in this overview. This course provides a concise, yet comprehensive, introduction to the substantive criminal law. Prerequisite: Exit or exemption from Learning Support Reading.

CRJU 2230 Interpersonal Relations in Law Enforcement 3-0-3
This course offers an introduction to the methods of “community oriented policing” establishing a partnership between law enforcement agencies and communities. The goal is to prepare students to understand and appreciate cultural diversity and to be able to communicate effectively with residents of high crime areas, as well as with advocates of programs for improving law enforcement practices. Prerequisite: Exit or exemption from Learning Support Reading and English.

CRJU 2240 Introduction to Juvenile Delinquency 3-0-3
This course examines (a) the nature, causes, development and consequences of juvenile delinquency; (b) the changing societal perceptions and reactions to juvenile delinquency and to juveniles who commit adult crimes; and (c) the adjudication, punishment and special needs of the juvenile offender. Prerequisite: Exit or exemption from Learning Support Reading and English.

CRJU 2251 Practicum in Criminal Justice 3-0-3
A placement in one of the three primary divisions of the criminal justice system--law enforcement, corrections and the judicial system--is provided each student. Prerequisite: CRJU 1102.

CRJU 2500 Introduction to Homeland Security 3-0-3
This course is designed to serve as a primary course for those interested in Homeland (or Domestic) Security and will also serve as an ancillary course in introductory criminal justice or terrorism related courses. It covers the 9/11 attacks, the roles of national and state agencies and the private sector in the quest
CRJU 2801 Law Enforcement Leadership and Administration I 3-0-3
This course is an introduction to the principles and roles of leadership in the area of law enforcement management. Primary focus will be placed on theories of leadership and management, motivation, organization and application. A review of leadership typologies will also be included. Prerequisites: Exit or exemption from Learning Support Reading; passing a multi-level criminal background check.

CRJU 2803 Law Enforcement Liability 3-0-3
This course is designed to introduce to the student to legal liability issues involved in supervision and management within a Law enforcement agency, including the various levels of liability from officer misconduct to agency negligence. The student will become familiar with the importance of agency policies and the concept and definitions of Torts, Negligence, 42-U.S.C. sec. 1983, and 18 U.S.C. sec. 242 violations. Prerequisites: Exit or exemption from Learning Support Reading; passing a multi-level criminal background check.

CRJU 2804 Professional Standards In Law Enforcement 3-0-3
This course will develop the skills required to understand professional standards set forth by professional law enforcement agencies. An overview of professional standards will be facilitated to include development of model policies and their purpose, general orders and procedures, as well as their application. Students will be also introduced to internal affairs investigations, and their role in maintaining professional standards within a law enforcement agency. Prerequisites: Exit or exemption from Learning Support Reading; passing a multi-level criminal background check.

CRJU 2901 Law Enforcement Leadership and Administration II 3-0-3
This course focuses on issues associated with law enforcement leadership roles. Topics include effective time management, stress management, and characteristics of a healthy workplace. Other topics include dealing with diverse personalities as well as a strong emphasis on understanding and developing communication skills within a law enforcement environment. Prerequisites: Exit or exemption from Learning Support Reading; passing a multi-level criminal background check.

CRJU 3110 Diversity Issues in Criminal Justice 3-0-3
This course examines how the issues of crime and justice are played out in the context of a diverse society. The course will consider: 1) how the law affects and has affected different groups in United States society; 2) the differential involvement in crime and the criminal justice system across groups; and 3) the differential responses of the justice system to various groups. Prerequisites: CRJU 1102 and Junior or Senior standing.
CRJU 3117 Research Methods in Criminal Justice 3-0-3
This course provides an overview of research methods employed in criminal justice. Theoretical principles on which scientific research is based are studied and applied to criminological research methods. Students will learn the historical development of social research as well as techniques and problems encountered in criminal justice research methods.
Prerequisites: CRJU 1102 and Junior or Senior standing.

CRJU 3201 Criminal Justice Ethics 3-0-3
This course examines the ethical considerations facing the criminal justice practitioner. Topics include determining moral behavior, ethics and law enforcement, ethics and the courts, ethics and corrections, and ethical factors in criminal justice system policy and management issues.
Prerequisites: CRJU 1102 and Junior or Senior standing.

CRJU 3230 Criminal Justice Administration and Supervision 3-0-3
This course examines the theories of motivation, leadership, and organization in the context of criminal justice governmental and social agencies. Administrative and management functions are studied emphasizing personnel management and organizational change. Topics include discipline, motivation, training, job classification, salary standards, promotion, and labor relations.
Prerequisites: CRJU 1102 and Junior or Senior standing.

CRJU 3301 The Judicial System 3-0-3
This course looks at the role of the judiciary in the criminal justice system including the structure of the courts and criminal procedure from charging through sentencing and appeal.
Prerequisites: CRJU 1102 and Junior or Senior standing.

CRJU 3302 Organized Crime 3-0-3
This course examines the origins, histories, and activities of various major organized crime groups in the United States and throughout the world. Special emphasis is placed on emerging organized criminal enterprises in developing countries and regions. In addition, this course explores the methods used by law enforcement to combat organized crime.
Prerequisites: CRJU 1102 and Junior or Senior standing.

CRJU 3320 Criminal Investigation 3-0-3
This course examines the historical, theoretical, and technological aspects of the investigation of crime. The topic includes crime scene examinations, the collection
and preservation of evidence, forensic and behavioral sciences, interviews, interrogations, and the use of technology by law enforcement agencies. 
Prerequisites: CRJU 1102 and Junior or Senior standing.

**CRJU 3340 - Legal Analysis** 3-0-3
This course involves students in the process of reasoning objectively and arguing persuasively within a socio-legal framework. Set against a background of formal and informal logic that guides reasoning in general, the course is primarily concerned with the reasoning underlying the construction of legal arguments from judicial, legislative, and scholarly points of view. Theoretical analysis is illustrated by investigating and writing about the law, with an emphasis on topics related to crime. 
Prerequisites: CRJU 1102 and Junior or Senior standing.

**CRJU 3420 Criminal Profiling and Victimology** 3-0-3
This course centers on the “deductive profiling” method, the analysis process of forensic evidence, and the development of offender characteristics. It approaches each crime as its own universe of social relationships and behaviors and requires the examination and analysis of a real homicide. An overview of the socio-legal aspects involving profiling and analysis of specific profiling issues in different types of serial crimes are addressed. Basic concepts of criminal victimization, including society’s response to victims and their problems, will also be studied. 
Prerequisites: CRJU 1102, CRJU 2105 and Junior or Senior standing.

**CRJU 3520 Economic Crime Law and Investigation** 3-0-3
This course is designed to prepare students with the skills necessary to detect, investigate, and prevent white collar crime. Included is an analysis of the legal issues related to fraud and other economic crimes, and the organization of evidence in preparation of presenting a case for prosecution. 
Prerequisites: CRJU 1102 and Junior or Senior standing.

**CRJU 4101 Technical Writing in Criminal Justice** 3-0-3
This course will focus on technical writing skills required in all criminal justice fields will be taught. Special emphasis will be placed on essential, objective, and factual report writing; note taking; extensive agency and court narratives; and related social histories and reports.

**CRJU 4125 Community Based Corrections** 3-0-3

**CRJU 4126 Institutional Treatment of Criminal Offenders** 3-0-3
This course examines institutional and individual theories of correctional treatment of criminal offenders.
Prerequisites: CRJU 1102, CRJU 1106 and Junior or Senior standing.

CRJU 4305 Cybercrime  
3-0-3  
This course focuses on cybercrime and computer-related crime issues facing the criminal justice system in the United States. Topics include: 1) the ability of law enforcement to respond to cybercrimes, 2) law enforcement problems in dealing with computer crime, 3) governmental response to cybercrime problems, and 4) future trends in cybercrime and computer-related crime.  
Prerequisites: CRJU 1102 and Junior or Senior standing.

CRJU 4401 Police Systems in the United States  
3-0-3  
An overview of the social and historical settings of the police and of the police role and function is provided in this course. Topics include an examination of the structure of policing in the United States, the use of police discretionary powers, police values, police culture, and the organization and control of police.  
Prerequisites: CRJU 1102 and Junior or Senior standing.

CRJU 4426 Civil Liberties  
3-0-3  
This course examines the rights of Americans as guaranteed by the Constitution of the United States. The changing character of civil liberties problems in the United States will be stressed with attention given to the legal, historical and political context of the cases studied.  
Prerequisites: CRJU 1102 and Junior or Senior standing.

CRJU 4600 Ideological Violence and Law Enforcement  
3-0-3  
The course will examine law enforcement response to domestic and international terrorism. Topics will include threat analysis, intelligence processing, proactive measures, reactive measures, development of modern terrorism and specific terrorist groups.  
Prerequisites: CRJU 1102, CRJU 2500 and Junior or Senior standing.

CRJU 4701 Comparative Criminal Justice Systems  
3-0-3  
This course analyzes issues in criminal justice and their characteristics as they relate to the operation of larger social structures viewed in global perspective.  
Prerequisites: CRJU 1102 and Junior or Senior standing.

CRJU 4801 Restorative Justice  
3-0-3  
This course will examine the definitions, historical and theoretical origins and development, principles and practices, benefits and limitations of restorative justice as an alternative approach to traditional retributive government responses to crime in the United States. Topics include victim-offender mediation programs and the role of offender, victim, church, state, and community in the restorative
justice model. Students will also examine a program evaluation of restorative justice programs to discern outcome effectiveness.
Prerequisites: CRJU 1102 and Junior or Senior standing.

**CRJU 4900 Law Enforcement Initiatives** 3-0-3
This course allows the student to participate in a seminar that includes up to date information from readings and through discussions with agents from state and federal agencies. Students will develop knowledge about state and federal agencies and their missions; the types of investigations under-taken by agencies; the use of technology by agencies and by offenders; predictions of future issues and crimes the agencies will likely face; the application and hiring process and essential/desired skills needed to work for various agencies.
Prerequisites: CRJU 1102 and Junior or Senior standing.

**CRJU 4901 Internship 1** 1-4-3
This course provides senior status students with an opportunity to perform as participants in established criminal justice agencies at the local and state levels. Students must attend class on campus one hour a week and work in an approved local or state criminal justice agency 4 hours a week.
Prerequisites: CRJU 1102, Senior standing, clear criminal background check, and consent of the instructor.

**CRJU 4902 Internship 2** 1-4-3
Senior level students will perform as participants in established criminal justice federal agencies. Students must attend class on campus one hour a week and work in an approved federal level criminal justice agency 4 hours a week.
Prerequisites: CRJU 1102, Senior standing, clear criminal background check, and consent of the instructor.

**CRJU 4999 Criminal Justice Senior Capstone** 3-0-3 credits
This required capstone course is designed for senior level students who will apply learning from previous criminal justice courses. This course addresses current issues and trends in criminal justice to integrate knowledge concerning criminal justice policy. Each student is required to prepare, submit, and present a research paper on an instructor-approved criminal justice topic.
Prerequisites: CRJU 1102, CRJU 3117, Senior standing, and consent of the instructor.
for Homeland Security. This course also covers future plans in Homeland Security, the legal issues involved and weapons of mass destruction. Prerequisites: POLS 1101 – American Government or Permission of Instructor; and Exit or Exemption from Learning Support Reading and English.

ECONOMICS (DIVISION OF BUSINESS AND COMPUTER SCIENCE)

ECON 1105 Introduction to Economics 3-0-3
This course provides an analysis of the economic operations of modern industrial society, as well as economic concepts and their application in a free-enterprise system. Prerequisite: Exit or exemption from Learning Support Reading, English and Math.

ECON 2105 Principles of Macroeconomics 3-0-3
This principles course introduces students to concepts that will enable them to understand and analyze economic aggregates and evaluate economic policies. Prerequisite: Exit or exemption from Learning Support Reading, English and Math.

ECON 2106 Principles of Microeconomics 3-0-3
This principles course introduces students to concepts that will enable them to understand and analyze structure and performance of the market economy. Prerequisite: Exit from Learning Support Reading, English and Math.

EDUCATION (DIVISION OF SOCIAL SCIENCES)

In each Education course, students must complete a ten-hour field experience as part of the requirements. Prior to beginning the field experience the student must purchase liability insurance and the course instructor and Coordinator of Teacher Education Field Experience will provide details. In addition, a criminal background check is required, with a fee paid by the student, as arranged by the course Instructor and Coordinator of Teacher Education Field Experience with the Atlanta Metropolitan State College Office of Public Safety. Negative information on background checks may prevent students from completing Education course field experience requirements as school districts have the right to deny placement of students who fail the background check in their schools. Negative information on criminal background checks may ultimately prevent students from being certified as teachers. Students who fail to purchase the required liability insurance and/or fail the background check will not be able to complete the mandatory field experience requirements, and must withdraw from Education courses and change their major.
EDUC 1105 Foundations of Ed. in American Society 3-0-3
This course surveys the philosophical, historical, sociological, psychological, and political foundations of American education. Additionally, an up-to-date assessment of careers in the field of education is discussed. Twenty hours of field experience are required. Prerequisite: Exit or exemption from Learning Support Reading, English and Math.

EDUC 1117 Introduction to Child Development 3-0-3
This course provides an overview of human development which emphasizes the physical, motor, cognitive, and affective phases, as well as the role of peer groups, motivation, and socialization in the early days. The ramifications of various childrearing patterns are also examined. Observation in a preschool and/or elementary-school setting is required. Prerequisite: Exit or exemption from Learning Support Reading, English and Math; PSYC 1101.

EDUC 2101 Introduction to Education 3-0-3
This course examines the teaching profession through an overview of organizational, curricular, methodological, and multicultural issues in classroom teaching. Prerequisite: Exit or exemption from Learning Support Reading, English and Math.

EDUC 2105 Exceptional Children 3-0-3
This course focuses on the identification, characteristics and techniques of teaching exceptional children and youth in the regular classroom. Ten hours of field experience are required. Prerequisite: Exit or exemption from Learning Support Reading, English and Math; EDUC 1105 and EDUC 2101.

EDUC 2110 Investigating Critical & Contemporary Issues in Education 3-0-3
This course engages in observation, interactions, and analyses of critical and contemporary educational issues. Students will investigate issues influencing the social and political contexts of educational settings in Georgia and the United States. Students will actively examine the teaching profession from multiple vantage points both within and outside the school. Against this backdrop, students will reflect on and interpret the meaning of education and schooling in a diverse culture and examine the moral and ethical responsibilities of teaching in a democracy. Ten (10) hours of field experience are required. Prerequisite: Exit or exemption from Learning Support Reading, English and Math, and completion of ENGL 1101.
EDUC 2120 Exploring Socio-Cultural Perspectives on Diversity in Educational Contexts 3-0-3
Given the rapidly changing demographics in our state and country, this course is designed to equip future teachers with the fundamental knowledge of understanding culture and teaching children from diverse backgrounds. Specifically, this course is designed to examine (1) the nature and function of culture; (2) the development of individual and group cultural identity; (3) definitions and implications of diversity; and (4) the influences of culture on learning, development, and pedagogy. Ten (10) hours of field experience is required. Prerequisite: Exit or exemption from Learning Support Reading, English and Math and completion of ENGL 1101.

EDUC 2130 Exploring Learning and Teaching 3-0-3
This course involves exploring key aspects of learning and teaching through examining your own learning processes and those of others, with the goal of applying your knowledge to enhance the learning of all students in a variety of educational settings and contexts. Ten (10) hours of field experience is required. Prerequisite: Exit or exemption from Learning Support Reading, English and Math and completion of ENGL 1101.

EDUC 2253 Curriculum & Programming for Children’s Serv. 3-0-3
This course studies the various children’s services programs used in both academic and community settings. Students also study program design and development for traditional and nontraditional settings. Prerequisite: Exit or exemption from Learning Support Reading, English, Mathematics, EDUC 1105 and EDUC 2101.

ENGINEERING DRAWING (DIVISION OF SCIENCE, MATHEMATICS AND HEALTH PROFESSIONS)

CADD 1111 Engineering Drawing I 0-2-2
This course provides an introduction to a broad range of engineering graphics topics, including the use of instruments, orthographic projections, sectional views, and computer-aided design. Prerequisites: Exit or exemption from Learning Support Mathematics.

CADD 1112 Engineering Drawing II 0-2-2
This course involves the graphic development of the spatial relationships of points, lines, and the intersections of surfaces. Emphasis is placed on a thorough understanding of projection principles so the visualization of exact space conditions is developed. Considerable attention is given to the use of computer-
aided designs to develop engineering design projects that meet industry and ANSI standards. Prerequisite: CADD 1111.

**ENGLISH (DIVISION OF HUMANITIES AND FINE ARTS)**

**ENGL 0099 Writer’s Workshop**  
4-0-4  
In English 0099, students have multiple opportunities to advance their understanding of written English, develop more complex sentence structures, and learn proofreading skills. Prerequisite: Satisfactory score on the COMPASS Placement Examination. Institutional credit only.

**ENGL 0099E Writer’s Workshop (ESL)**  
4-0-4  
English 0099E is the second level of preparation for academic writing. Intended for ESL students, it develops writing skills. Students have multiple opportunities to advance their understanding of written English, develop more complex sentence structures, and learn proofreading skills. Special emphasis is placed on the linguistic difficulties of the English as a Second Language student. Prerequisite: A satisfactory score on the COMPASS Placement Examination. Institutional credit only.

**ENGL 1101 English Composition I**  
3-0-3  
This composition course focuses on skills required for effective writing in a variety of contexts, with emphasis on exposition, analysis, and argumentation. Prerequisites: Exit or exemption from Learning Support English and Reading. **Students must earn at least a “C” in order to successfully pass the course.**

**ENGL 1102 English Composition II**  
3-0-3  
This composition course develops writing skills beyond the levels of proficiency required by ENGL 1101. Emphasis is placed on interpretation, evaluation and the development of advanced research methodologies. Prerequisites: Exit or exemption from Learning Support English and Reading, and ENGL 1101.

**ENGL 1105 Technical Writing**  
3-0-3  
This course focuses on the fundamentals of specialized types of writing used in business, industry, and technical professions. Emphasis is placed on organization and presentation of factual material with clarity, definiteness, and conciseness. Course content may be individualized according to the business and professional needs of the student. Prerequisites: Exit or exemption from Learning Support Reading and English; ENGL 1101 or permission of the instructor.

**ENGL 2111 World Literature I**  
3-0-3  
This course surveys important works of world literature from ancient times through the mid-seventeenth century. Prerequisites: Exit or exemption from
Learning Support English and Reading; ENGL 1101 or permission of the instructor.

**ENGL 2112 World Literature II** 3-0-3
This course surveys important works of world literature from mid-seventeenth century to the present. Prerequisites: Exit or exemption from Learning Support English and Reading; English 1101 or permission of the instructor.

**ENGL 2130 American Literature** 3-0-3
This course surveys important works of American Literature. Prerequisites: Exit or exemption from Learning Support English and Reading; ENGL 1101 or permission of the instructor.

**ENGL 2205 Introduction to Creative Writing** 3-0-3
This course offers the student an opportunity to experiment with poetry, prose and/or drama in the development of his or her own writing style, using representative works as a guide. Prerequisites: Exit or exemption from Learning Support English and Reading; ENGL 1101 or permission of the instructor.

**ENGINEERING (DIVISION OF SCIENCE, MATHEMATICS AND HEALTH PROFESSIONS)**

**ENGR 1371 Computing for Engineers** 2-2-3
This course provides foundations of computing through an introduction to the design and analysis of algorithms and the design and construction of programs used in engineering problem-solving. Prerequisites: Exit or exemption from Learning Support English and Reading and a grade of “C” of better or exemption from MATH 1113 or permission of the instructor.

**ENGR 2201 Engineering Statics** 3-0-3
This course provides a study of the principles of statics in two and three dimensions. Topics include force vectors, free-body diagrams, and equilibrium of rigid bodies, distributed loads, trusses, beams, frames, centroids, moments of inertia, and friction. Prerequisites: PHYS 2211 or permission of the instructor. Co-requisite: MATH 2202.

**ENGR 2202 Dynamics** 3-0-3
This course provides a study of the principles of dynamics in one, two, and three dimensions. Topics include kinematics and kinetics of particles and rigid bodies, work-energy concepts, and impulse-momentum concepts. Prerequisites: ENGR 2201.
FRENCH (DIVISION OF HUMANITIES AND FINE ARTS)

FREN 1001 Elementary French I 3-0-3
This course provides an introduction to French, using all four skills: listening, speaking, reading, and writing. The culture of French-speaking regions is integrated into the course. Note: This course will not meet degree requirements at some University System of Georgia institutions.

*Satisfies College Preparatory Curriculum (CPC) requirement in Foreign Language when cross-referenced as FREN 1000 but cannot be repeated for credit. Prerequisite: Exit or exemption from Learning Support Reading and English.

FREN 1002 Elementary French II 3-0-3
This course continues and completes the introduction of major grammatical points begun in French 1001. All four language skills are included. Study of the culture of French-speaking regions is continued. Prerequisite: FREN 1001, or one year of high school French, or equivalent.

FREN 2001 Intermediate French I 3-0-3
The finer points of grammar are introduced, with extensive speaking and reading comprehension practice. Prerequisite: FREN 1002, or two years of high school French, or equivalent.

FREN 2002 Intermediate French II 3-0-3
This course continues the work of French 2001. Emphasis in this course is on working with original French texts. Prerequisite: FREN 2001, or three years of high school French, or equivalent.

GENERAL SCIENCE (DIVISION OF SCIENCE, MATHEMATICS AND HEALTH PROFESSIONS)

GSCI 1101 General Science I 3-0-3
This is an interdisciplinary course designed to communicate to the non-science major fundamental concepts related to the life, physical and earth sciences. Topics include the methods of science, matter, energy, sound, light and conservation. This course is especially well-suited to the needs of students majoring in elementary science. Prerequisite: Exit or exemption from Learning Support Reading and English or permission of the instructor.

*Satisfies College Preparatory Curriculum (CPC) requirement in Natural Science when cross-referenced as GSCI 1100 and taken with GSCL 1100, the lab portion of this course; GSCI 1101 cannot be repeated for credit if taken to satisfy a CPC requirement.
**GSCL 1101 General Science Lab I** 0-2-1
This is the laboratory component of GSCI 1101. Topics include scientific measurement, laboratory techniques, scientific literature, the chemical nature of matter, light, sound, energy and ecology. Prerequisite or corequisite: GSCI 1101 or permission of the instructor.

* Satisfies College Preparatory Curriculum (CPC) requirements in Natural Science when cross-referenced as GSCL 1100 and taken with GSCI 1100, the lecture portion of this course; GSCL 1101 cannot be repeated for credit.

**GSCI 1102 General Science II** 3-0-3
This course is a continuation of GSCI 1101. Prerequisite: Exit or exemption from Learning Support Reading and English or permission of the instructor.

*Satisfies College Preparatory Curriculum (CPC) requirement in Natural Science when cross-referenced as GSCI 1100 and taken with GSCI 1100, the lab portion of this course; GSCI 1102 cannot be repeated for credit.*

**GSCL 1102 General Science Lab II** 0-2-1
This is the laboratory component of GSCI 1102. Prerequisite or corequisite: GSCI 1102 or permission of the instructor.

* Satisfies College Preparatory Curriculum (CPC) requirements in Natural Science when cross-referenced as GSCL 1100 and taken with GSCI 1100, the lecture portion of this course; GSCL 1102 cannot be repeated for credit.

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**GEOGRAPHY (DIVISION OF SOCIAL SCIENCES)**

**GEOG 1105 Introduction to World Regional Geography** 3-0-3
This course is an introduction to the human and physical geography of major world regions with emphasis on component countries, regional problems, and distinctive physical and cultural characteristics. Prerequisite: Exit or exemption from Learning Support Reading and English.

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**GEOLOGY (DIVISION OF SCIENCE, MATHEMATICS AND HEALTH PROFESSIONS)**

**GEOL 1121 Principles of Physical Geology** 3-0-3
This course provides an introduction to the materials of Earth (minerals and rocks); the geologic processes which form them and their geologic distribution; the geologic process of gradation and the origin of land forms; the structure of Earth; and Earth’s place in the universe. This course is primarily for science majors. Prerequisite or corequisite: Exit or exemption from Learning Support Mathematics, Reading and English; GLAB 1121.
GLAB 1121 Principles of Physical Geology Lab 0-3-1
This course is the laboratory component of Geology 1121. Topics include rocks, minerals, erosion and field studies. Corequisite: GEOL 1121 or permission of the instructor.

GEOL 1122 Principles of Historical Geology 3-0-3
This course provides an introduction to geologic time; the principles of reconstructing the past, and the meaning of fossils; the physical history of Earth from its cosmic beginning to the present, with emphasis on North America, including the problems of continental drift and the secretion of continents, and the history of life. This course is primarily for science majors. Prerequisites: GEOL 1121, GLAB 1121 or permission of the instructor.

GLAB 1122 Principles of Historical Geology Lab 0-3-1
This course is the laboratory component of Geology 1122. Topics include the geological time scale, evolution and field studies. Prerequisite and corequisite: GEOL 1121; GLAB 1121; GEOL 1122.

HISTORY (DIVISION OF SOCIAL SCIENCES)

HIST 1111 World Civilization I 3-0-3
This course is a survey of world history to early modern times. The factors influencing the development of world societies from the earliest humans to 1500 will be studied, emphasizing the inter-dependence of social, philosophical, political, economic, and environmental factors as determinants and effects in the evolutionary process toward distinctive cultures. Prerequisite: Exit or exemption from Learning Support Reading.

* Satisfies College Preparatory Curriculum [CPC] requirements in history when cross-referenced as HIST 0111; cannot be repeated for credit if taken to satisfy a CPC requirement.

HIST 1112 World Civilization II 3-0-3
This course is a survey of world history from early modern times to the present. World societies and cultures since 1500 will be studied. The integration of events and values, as well as political, economic, social, philosophical and environmental factors influencing the present will be emphasized. Prerequisite: Exit or exemption from Learning Support Reading.

* Satisfies College Preparatory Curriculum [CPC] requirements in history when cross-referenced as HIST 0112; cannot be repeated for credit if taken to satisfy a CPC requirement.

HIST 2111 United States History I 3-0-3
This course is a survey of United States history to the post-Civil War period. Topics include Native American cultures, English colonization, the American
Revolution and Early Nationalism; international relations; Antebellum society, industrialization, and inter-group relations; sectionalism, the American Civil War, and the abolition of slavery; and the place of Georgia in United States history to the Civil War. This course satisfies the State of Georgia law requiring the study of United States and Georgia history. Prerequisite: Exit or exemption from Learning Support Reading.

(Note: Students who have taken United States/American history at a non-University System of Georgia institution must choose one of the following at Atlanta Metropolitan State College to satisfy the Georgia legislative requirement: (1) pass a Social Sciences Division administered examination in Georgia history; or (2) take and pass a United States history course; or (3) with permission of the College Registrar and Social Sciences Division Dean, take and pass Hist 2114-Georgia History.)

HIST 2211 Honors United States History I 3-0-3
This course is a survey of United States history to the post-Civil War period. Topics include Native American cultures, English colonization, the American Revolution and Early Nationalism; international relations; Antebellum society, industrialization, and inter-group relations; sectionalism, the American Civil War, and the abolition of slavery; and the place of Georgia in United States history to the Civil War. Emphasis is placed upon critical reading, advanced research papers and reports, and student-led discussions and debates. This course satisfies the State of Georgia law requiring the study of United States and Georgia history. Prerequisite: Exit or exemption from Learning Support Reading, English and Mathematics.

(Note: Students who have taken United States/American history at a non-University System of Georgia institution must choose one of the following at Atlanta Metropolitan State College to satisfy the Georgia legislative requirement: (1) pass a Social Sciences Division administered examination in Georgia history; or (2) take and pass a United States history course; or (3) with the permission of the College Registrar and Social Sciences Division Dean, take and pass Hist 2114-Georgia History.)

HIST 2112 United States History II 3-0-3
(Note: Students who have taken United States/American history at a non-University System of Georgia institution must choose one of the following at Atlanta Metropolitan State College to satisfy the Georgia legislative requirement: (1) pass a Social Sciences Division administered examination in Georgia history; or (2) take and pass a United States history course; or (3) with the permission of the College Registrar and the Social Sciences Division Dean, take and pass HIST
HIST 2113 Minorities in American History  3-0-3
This course surveys American history in relation to selected ethnic minority groups. Emphasis is placed on factors influencing the groups, their internal dynamics, and the interaction between the groups and other elements of society. Prerequisite: Exit or exemption from Learning Support Reading.

HIST 2114 Georgia History  3-0-3
This course surveys the history of Georgia from the period of colonization to the present. (Students given College transfer credit for United States History and American Government earned at non-University System of Georgia institutions may satisfy the United States and Georgia History and United States and Georgia Constitution requirement by taking and passing this course at Atlanta Metropolitan State College.) Prerequisite: Exit or exemption from Learning Support Reading.

HIST 2232 African American History  3-0-3
This course surveys the history of African Americans in the United States from the period of colonization to the present. Prerequisite: Exit or exemption from Learning Support Reading.

HUMANITIES (DIVISION OF HUMANITIES AND FINE ARTS)

HUMA 1101 Exploring Selected American Cultures  3-0-3
This course is designed to survey the cultural experiences of African Americans, Hispanic Americans and Asian Americans, in the areas of drama, music and art, with an emphasis on the diversity and commonalities of world cultures and those forces which help shape and define human culture. Prerequisite: Exit or exemption from Learning Support Reading.
HUMA 1102 African American Culture 3-0-3
This course presents an introduction to studies of African American culture, primarily through readings in literature and philosophy. Prerequisite: Exit or exemption from Learning Support Reading.

HUMA 2000 Exploring Global Cultures 3-0-3
This course allows students to receive course credit for study and travel opportunities abroad. Experiences include the study of a country’s history, literature, language, art, government, civilization, and culture. This course is only for students who are taking Atlanta Metropolitan State College’s Study Abroad trip.

INTEGRATED SCIENCE (DIVISION OF SCIENCE, MATHEMATICS AND HEALTH PROFESSIONS)

ISCI 2001 Integrated Science I 3-2-3
This course is designed for inclusion in Area F for Early childhood teacher candidates. It is an interdisciplinary, inquiry-based and activity-based science course designed to communicate fundamental concepts related to earth science and life science. The goal of this course is to help students develop a basic understanding of the scientific principles congruent with the categories included in the Georgia Performance Standards. Topics covered, but are not limited to the following: the lithosphere, the hydrosphere, rocks and minerals, weather and climate, characteristics of life, chemistry of life, systems of the human body and genetics. Prerequisite: Exit or exemption from Learning Support English, Mathematics and Reading.

ISCI 2002 Integrated Science II 3-2-3
This course is a continuation of ISCI 2001. It is designed for inclusion in Area F for Early Childhood teacher candidates. It is an interdisciplinary, inquiry-based and activity-based science course designed to communicate fundamental concepts related to physical science and astronomy. The primary goal of this course is to help students develop a basic understanding of the scientific principles congruent with the categories included in the Georgia Performance Standards. Topics covered include, but are not limited to the following: methods of science, matter, energy, sound, light and conservation. Prerequisite: Exit or exemption from Learning Support English, Mathematics and Reading.
INFORMATION TECHNOLOGY (DIVISION OF BUSINESS AND COMPUTER SCIENCE)

ITEC 2204 Oper. Systems & PC Hardware Fundamentals 3-0-3
This course covers the installation, configuration, diagnosing, troubleshooting and upgrading of microcomputers and operating systems. It will also cover basic networking concepts and preventive maintenance of printers and microcomputers. Prerequisite: CISM 2101.

ITEC 2205 Data Communication and Networking 3-0-3
This course covers data communication and networking. Topics include LAN, MAN, and WAN communication standards, network protocols, OSI model, network topologies, networking equipment, and network operating systems. Prerequisite: ITEC 2204

ITEC 2210 Network Client Administration 3-0-3
This course covers the installation, configuration, administration and troubleshooting of a desktop operating system in a networked environment. This course will also cover the configuration and management of computers in a peer-to-peer networking environment. Prerequisite: ITEC 2205; Corequisite: ITEC 2215

ITEC 2215 Network Server Administration 3-0-3
This course covers the installation, configuration, administration and troubleshooting of a network operating system in a network environment. This course will also cover the configuration and the management of servers and workstations in a client-server environment. Prerequisite: ITEC 2205; Corequisite: ITEC 2210.

ITEC 2216 Network Infrastructure Administration 4-0-4
This course covers the skills required to install, configure, manage, monitor and troubleshoot various network infrastructures. The course also covers Network Address Translation and Certificate Services. Prerequisites: ITEC 2210 and ITEC 2215.

ITEC 2217 Network Director Service Administration 4-0-4
This course covers the installation, configuration, and administration of director services. The course also covers the skills required to manage, monitor and optimize desktop environment and computers using group policy. Prerequisites: ITEC 2210 and ITEC 2215.

ITEC 2219 Network Directory Services Design 4-0-4
This course covers the skills required in analyzing and selecting the appropriate technology required to design a particular directory service and desktop management. The course will analyze the business requirements and design
appropriate services and desktop management services to meet the business requirements. Prerequisite: ITEC 2217.

**ITEC 2220 Network Security Design**  
4-0-4  
This course covers design and management of network security. The course will analyze the business requirement for security and design the appropriate security solution to meet the business requirements. Prerequisite: ITEC 2210 and ITEC 2215.

**ITEC 2221 Network Infrastructure Design**  
4-0-4  
This course is designed to teach students how to analyze business network infrastructure needs, select appropriate technologies, and design infrastructures to meet business requirements. Prerequisite: ITEC 2216.

**ITEC 2222 Network Systems Upgrade**  
3-0-3  
This course covers the required skills, knowledge and criteria for restructuring and upgrading your network operating system. Prerequisite: ITEC 2204.

**ITEC 2223 Communicating in Cyberspace**  
3-0-3  
This course is designed to teach students to utilize tools for effective communication in cyberspace with emphasis on e-mail, news and chat groups, navigating the web, search engines, and web presentation of information. Prerequisite: CISM 2101.

**ITEC 2224 Spreadsheet Applications**  
3-0-3  
This course covers skills required to create, edit and modify spreadsheets. Topics include importing and exporting data, using templates, macros, analysis tools, and multiple workbooks, working with ranges and toolbar, printing workbooks, auditing worksheets, collaborating with workgroups, formatting and displaying data. Prerequisites: CISM 2101 and ITEC 2223.

**ITEC 2225 Word Processing Applications**  
3-0-3  
This course will cover the skills required to create, edit, and modify paragraphs and documents. Topics include working with documents, tables, pictures and charts, using mail merge and collaborating with workgroups. It will also cover some selected advanced features of word-processing application software. Prerequisites: CISM 2101 and ITEC 2223.

**ITEC 2226 Database Applications**  
3-0-3  
This course will cover the skills required to create, edit and modify a database. Topics include planning and designing databases, building and modifying tables, forms, defining relationships, producing reports, viewing and organizing information, integrating other applications and using database tools. Prerequisites: CISM 2101 and ITEC 2223.
ITEC 2227 Electronic Presentations and Multimedia 3-0-3
This course covers the skills required to create, edit, and modify electronic presentations. It will also cover the integration of multimedia in a presentation document. Topics include creating and modifying presentations, working with text and visual elements, customizing presentations, creating outputs, managing files and incorporating music, voice, sounds, hypertext, graphics, animation and video. Prerequisites: CISM 2101 and ITEC 2223.

ITEC 2228 Desktop Management Applications 3-0-3
This course covers the use of desktop applications to manage and organize e-mail, messages, calendar, contacts, notes and daily tasks. This course will also cover the integration and creation of word processing, spreadsheets, and database documents within the desktop management application. Prerequisites: CISM 2101 and ITEC 2223.

ITEC 2229 Web Publishing 3-0-3
This course covers the skills required to create, update, and maintain web documents using selected application software. Prerequisites: CISM 2101 and ITEC 2223.

ITEC 2230 Integrated Applications & Desktop Publ. 3-0-3
This is a hands-on course in the design, layout, and development of publications such as business reports, trade journals, newsletters, ads and brochures. Students learn the basic concepts of designing, multiple font styles and sizes to produce high quality documents. Prerequisites: CISM 2101 and 2223.

MASS COMMUNICATIONS (DIVISION OF HUMANITIES AND FINE ARTS)

MCOM 1101 Introduction to Mass Communications 3-0-3
This course is designed to acquaint students with mass media as an industry. Students investigate the areas of print journalism, broadcast journalism, public relations, and advertising. Emphasis is placed on preparing competent communicators in written and oral presentations. Prerequisites: ENGL 1101; ENGL 1102.

MCOM 2201 Writing and Reporting 3-0-3
This is a combination lecture and laboratory course which emphasizes writing various types of news stories for print and broadcast media. Prerequisites: ENGL 1101; ENGL 1102.
MCOM 2202 Mass Communications Workshop 3-0-3
Designed for students desiring to major in Mass Communications at the four-year level, this course provides an opportunity for application of relevant theories and techniques to practical experiences in specific areas of interest. Students are required to develop a research project which reflects a specific career or academic interest. Research topics must be selected, and then approved by the instructor at the beginning of the course. Projects must be presented both orally and in writing. Prerequisite: English 1102.

MATHEMATICS (DIVISION OF SCIENCE, MATHEMATICS AND HEALTH PROFESSIONS)

MATH 0097 Introductory Algebra I 4-0-4
MATH 0097 is the first course in a two-course sequence designed to prepare students for College Algebra. Topics include basic operations on fractions, decimals, signed numbers, percents, linear equations and inequalities, graphing, exponents, and polynomials. No prerequisite. Institutional credit only.

MATH 0099 Introductory Algebra II 4-0-4
MATH 0099 is the second of two courses designed to prepare students for College Algebra. Topics include exponents, polynomials, linear equations, systems of equations, quadratic equations, graphing, algebraic fractions, roots, radicals, and factoring. Prerequisite: MATH 0097, or satisfactory score on the COMPASS Placement Examination. Institutional credit only.

MATH 1001 Quantitative Skills and Reasoning 3-0-3
This course places quantitative skills and reasoning in the context of experiences that students will be likely to encounter. It emphasizes processing information in context from a variety of representations, understanding of both the information and the processing, and understanding which conclusions can be reasonably determined. Prerequisite: Exit or exemption from Learning Support Reading, English, and Mathematics. (This course is an alternative in Area A of the Core Curriculum and is not intended to supply sufficient algebraic background for students who intend to take Precalculus or the calculus sequences for mathematics and science majors)

MATH 1101 Introduction to Mathematical Modeling 3-0-3
This course is an introduction to mathematical modeling using graphical, numerical, symbolic, and verbal techniques to describe and explore real-world data and phenomena. Emphasis is on the use of elementary functions to investigate and analyze applied problems and questions, supported by the use of appropriate technology and an effective communication of quantitative concepts
and results. Prerequisite: Exit or exemption from Learning Support Reading, English, and Mathematics.

**MATH 1111 College Algebra** 3-0-3
This course is a functional approach to algebra that incorporates the use of appropriate technology. Emphasis is placed on the study of functions and their graphs, inequalities, and linear, quadratic, rational, polynomial, exponential, and logarithmic functions. Appropriate applications are included. Prerequisite: Exit or exemption from Learning Support Mathematics and satisfactory performance of a MATH 1111 Placement Examination.

**MATH 1112 Introduction to Mathematical Techniques** 3-0-3
This course is designed to develop problem-solving and computational skills. It includes use of the graphics calculator and scientific spreadsheets. Topics include linear and quadratic equations, exponential and logarithmic expressions, triangle trigonometry, matrices and determinants, methods for solving systems of equations, vector operations, elements of analytical geometry, combinations and an introduction to probability. Prerequisite: A grade of “C” or better in College Algebra (MATH 1111) or satisfactory performance on a mathematics exemption examination or permission of the instructor.

**MATH 1113 Precalculus** 3-0-3
This course is designed to prepare students for calculus, physics, and related technical subjects. Topics include an intensive study of algebraic and transcendental functions accompanied by analytic geometry. Prerequisite: A grade of “C” or better in College Algebra (MATH 1111) or satisfactory performance on a mathematics exemption examination or permission of the instructor.

**MATH 1114 Elementary Statistics** 3-0-3
This course in basic statistics is especially designed for Allied Health, Business Administration and Social Science majors. Topics include descriptive statistics, distributions, inference hypothesis, and other statistical tests. Special attention is given to statistical analyses utilizing current technologies, especially computer software. Prerequisite: A grade of “C” or better in College Algebra (MATH 1111) or satisfactory performance on a mathematics exemption examination or permission of the instructor.

**MATH 1121 Decision Mathematics** 3-0-3
This course is designed primarily for students in Business Administration. The following topics are introduced at a basic level within the context of their application in business decision-making: sets, real numbers, functions and graphs, systems of equations, matrices, linear programming and probability. Prerequisite: A grade of “C” or better in College Algebra (MATH 1111) or
satisfactory performance on a mathematics exemption examination or permission of the instructor.

**MATH 1122 Elementary Calculus**  
3-0-3  
This course is a non-theoretical introduction to the basic techniques of differential and integral calculus with emphasis on practical applications in such areas as business, economics, psychology and other social sciences. Prerequisite: A grade of “C” or better in MATH 1111 or MATH 1121 or permission of the instructor.

**MATH 1128 Discrete Mathematics**  
3-0-3  
This course introduces mathematical concepts germane to computer science. Topics include binary number systems, sets, combinatories, symbolic logic, Boolean algebra, recurrence relations, mathematical induction and graphs. Prerequisite: A grade of “C” or better in MATH 1113 or permission of the instructor.

**MATH 2008 Foundations of Numbers and Operations**  
3-0-3  
This course provides an Area F introductory mathematics course for early childhood education majors. This course will emphasize the understanding and use of the major concepts of numbers and operations. As a general theme, strategies of problem solving will be used and discussed in the context of various topics. Prerequisites: ENGL 1101, ENGL 1102 and MATH 1001, MATH 1101, MATH 1111, or MATH 1113.

**MATH 2201 Analytic Geometry and Calculus I**  
3-2-4  
This course introduces single variable calculus, including functions, limits, continuity and definitions and applications of first and second derivatives, anti-derivatives, and integration. Prerequisite: A grade of “C” or better in MATH 1113 or permission of the instructor.

**MATH 2201H Calculus I Honors**  
3-2-4  
An introduction to single variable calculus including functions, limits, continuity, derivatives with applications, anti-derivatives, integration with applications, transcendental functions. Prerequisite: A grade of "C" or better in Math 1113 or permission of instructor. All test will be proctored. This course is designed for students transferring to Georgia Tech for Math 1501.

**MATH 2202 Calculus II**  
3-2-4  
This course is a continuation of MATH 2201. Topics include anti-derivatives, integration, applications of the integral, logarithmic and exponential functions, trigonometric functions and further integration and differentiation techniques. Prerequisite: MATH 2201 or permission of the instructor.
MATH 2203 Calculus III
This course is a continuation of MATH 2202. It provides an introduction to the calculus of several variables. Topics include partial derivatives, vectors, parametric curves, directional derivatives, multiple integrals and change of coordinate systems. Prerequisite: MATH 2202 or permission of the instructor.

MATH 2204 Calculus IV
This course is designed to introduce mathematical methods of studying physical processes by means of differential equations. Topics include first-order, second-order and higher-order ordinary linear differential equations, and power series solutions. Prerequisite: MATH 2203 or permission of the instructor.

MATH 2208 Linear Algebra
This is a course for mathematics majors and students in some areas of the social and natural sciences. Topics include vectors and vector spaces, simultaneous equations and matrix algebra. Prerequisite: MATH 1112 or MATH 1113 or permission of the instructor.

MUSIC (DIVISION OF HUMANITIES AND FINE ARTS)

MUSC 1100 Music Appreciation
This course is comprised of an introduction to music understanding with emphasis on identifying the basic elements of music, historical perspectives and styles of music, discussing these from the listener’s point of view and relating them to other arts and cultures as appropriate. No prerequisite.

MUSC 1101 Fundamentals of Music
This course examines the basic concepts and the most fundamental elements of music notation. No prerequisite.

MUSC 1105 AMSC Choir
The Atlanta Metropolitan State College Choir is a mixed choral group devoted to the study and performance of all types of choral music. Musical styles include selections from traditional classical choral repertoire, popular music, show tunes, spirituals and gospel. This course may be repeated for credit. Choir is the necessary lab experience for music majors. No prerequisite.

MUSC 1106 Class Piano
Piano literature and technique are taught through class instruction. Limited enrollment. This course may be repeated for credit. No prerequisite.

MUSC 1111 Music Theory I
The first of a three-semester sequence, MUSC 1111 is a correlated study of rhythmic, melodic, and harmonic aspects of music part-writing and analysis. Topics include a review of the rudiments of notation, intervals, triads, and
seventh chords in major and minor keys. Sight singing, ear training, dictation and keyboard skills are included as appropriate. Prerequisite: Instructor approval, MUSC 1101 or MUSC 1120.

**MUSC 1112 Music Theory II** 1-2-3
A continuation of MUSC 111. Topics include part-writing and analyzing four part choral textures as well as connection of basic triad and seventh chord structures in cadential and harmonic progressions. The use of triads and seventh chords and their inversions are also considered. Sight singing, ear training, dictation, and keyboard skills are included as appropriate. Prerequisite: MUSC 1111.

**MUSC 1114 Class Voice** 0-2-2
This preparatory group voice class introduces the fundamentals of vocal training: breath control, tone production, diction and interpretation. The course may be repeated for credit. No prerequisite.

**MUSC 2111 Music Theory III** 1-2-3
This course is a continuation of MUSC 1112. Topics include embellishing chords, diatonic seventh chords, secondary functions, and modulation. Neapolitan chords, augmented sixth chords, and ninth, eleventh and thirteenth chords, sight-singing, ear training, dictation and keyboard skills are included as appropriate. Prerequisite: MUSC 1112.

**MUSC 2113 Introduction to Recording and Production** 3-0-3
Introduction to Recording and Production is an introduction to modern recording techniques and applications of recorded sound. Students will be exposed to professional recording studio procedures, including audio theory, psychoacoustics, console operation, microphone technique, monitor systems and noise reduction. Prerequisite: MUSC 1100, MUSC 1101, or MUSC 1111.

**MUSC 2114 Introduction to Music Management** 3-0-3
Introduction to Music Management is a survey of the various management fields in music, including recording studio management, artist management, and other business applications in music. Student will learn introductory techniques in contract negotiations, booking, promotions, securing employment in the music business, and the other music business skills. Prerequisite: MUSC 1100, MUSC 1101 or MUSC 1111.

**MUSC 2115 Sight-singing and Eartraining** 3-0-3
Sight-singing and eartraining focuses on the development of the student’s ability to read, comprehend, and perform standard music notation at sight, without rehearsal. Studies include scales, interval recognition, sight-singing, exercises in rhythmic, melodic, and harmonic dictation. Actual examples from music literature are perused. Prerequisite: MUSC 1101 or MUSC 1111.
APPLIED MUSIC COURSES (DIVISION OF HUMANITIES AND FINE ARTS)

Applied Music courses, listed below, are designed for music majors but are open to any student enrolled in Atlanta Metropolitan State College. Additional Applied Music fees are charged (see the Financial Information section of this Catalog for further information and the policy on refunds).

MUSC 1115 Applied Voice I 0-1-1
Appropriate vocal literature and technique are taught through one 30-minute private lesson per week arranged by the instructor and student. This course may be repeated for credit. Prerequisite: Ability to read music and match pitch as determined by the instructor.

MUSC 1116 Applied Voice II 0-2-2
Appropriate vocal literature and technique are taught through one 60-minute private lesson per week arranged by the instructor and student. This course may be repeated for credit. Prerequisite: Instructor approval.

MUSC 1120 Applied Piano I 0-1-1
Appropriate piano literature and technique are taught through one 30-minute private lesson per week arranged by the instructor and student. This course may be repeated for credit. No prerequisite.

MUSC 1121 Applied Piano II 0-2-2
Appropriate piano literature and technique are taught through one 60-minute private lesson per week arranged by the instructor and student. This course may be repeated for credit. No prerequisite.

MUSC 1130 Applied Strings I 0-1-1
Appropriate string literature and technique are taught through one 30-minute private lesson per week arranged by the instructor and student. This course may be repeated for credit. No prerequisite.

MUSC 1131 Applied Strings II 0-2-2
Appropriate string literature and technique are taught through one 60-minute private lesson per week arranged by the instructor and student. This course may be repeated for credit. No prerequisite.

MUSC 1135 Applied Woodwinds I 0-1-1
Appropriate woodwind literature and technique are taught through one 30-minute private lesson per week arranged by the instructor and student. This course may be repeated for credit. No prerequisite.
MUSC 1136 Applied Woodwinds II   0-2-2
Appropriate woodwind literature and technique are taught through one 60-minute private lesson per week arranged by the instructor and student. This course may be repeated for credit. No prerequisite.

MUSC 1140 Applied Brass I   0-1-1
Appropriate brass literature and technique are taught through one 30-minute private lesson per week arranged by the instructor and student. This course may be repeated for credit. No prerequisite.

MUSC 1141 Applied Brass II   0-2-2
Appropriate brass literature and technique are taught through one 60-minute private lesson per week arranged by the instructor and student. This course may be repeated for credit. No prerequisite.

MUSC 1145 Applied Percussion I   0-1-1
Appropriate percussion literature and technique are taught through one 30-minute private lesson per week arranged by the instructor and student. This course may be repeated for credit. No prerequisite.

MUSC 1146 Applied Percussion II   0-2-2
Appropriate percussion literature and technique are taught through one 60-minute private lesson per week arranged by the instructor and student. This course may be repeated for credit. No prerequisite.

NURSING (DIVISION OF SCIENCE, MATHEMATICS AND HEALTH PROFESSIONS)

NURSING 1105 Introduction to Nursing   3-0-3
This course provides a general introduction to nursing and the scope of the professional practice of nursing. It is designed for students considering nursing as an academic option. Prerequisites: Exit or exemption from Learning Support English and Reading.

ORIENTATION (DIVISION OF SOCIAL SCIENCES)

ORNT 1100 Seminar in Personal and Academic Dev.   1-0-1
ORNT 1100 is designed to enhance students’ personal development and to provide students with a holistic understanding of what college requires. Students explore academic majors, career opportunities, and affective issues related to personality, learning strategies and academic performance. This course must be completed by the end of the second semester of enrollment. No prerequisite.
PHILOSOPHY (DIVISION OF HUMANITIES AND FINE ARTS)

PHIL 2201 Survey of Philosophy 3-0-3
This course is designed to introduce students to problems which are basic to human existence, thereby enhancing students’ awareness of themselves and their world. Main currents in contemporary philosophy are examined in light of their historical origins as related to the arts, sciences and religion. Prerequisites: Exit or exemption from Learning Support Reading and English.

PHIL 2210 Logic and Critical Thinking 3-0-3
This course provides for the development of practical, symbolic logical skills with emphasis on the composition of argumentative essays. Students study logical definitions, fallacious and deceptive arguments. Assigned readings are selected from a variety of contemporary social, cultural and political issues as well as from classic western philosophers. Prerequisites: Exit or exemption from Learning Support Reading and English.

PHYSICAL EDUCATION (DIVISION OF SOCIAL SCIENCES)

PHED 1101 Wellness 3-0-3
This course presents a holistic approach to wellness with emphasis on nutrition, exercise, and coping with stress. No prerequisite.

PHED Activity Courses 0-2-1
These courses include skill development in the sport and an overview of the history of the sport. For students requiring restrictive activity, as recommended by a physician, appropriate modifications of the activity will be made. No prerequisite.

1110 Bowling I
This course will provide beginning bowling skills and development, with an understanding of rules, regulations and an overview of the history of the sport. For students requiring restrictive activity as recommended by a physician, the appropriate modification of the activity will be made. (A nominal fee may apply at the activity site.)
Prerequisite: None

1112 Badminton
This course will provide beginning badminton skills and development, with an understanding of rules, regulations and an overview of the history of the sport. For students requiring restrictive activity as recommended by a physician, the appropriate modification of the activity will be made.
Prerequisite: None
1113 Basketball
This course will provide beginning basketball skills and development, with an understanding of rules, regulations and an overview of the history of the sport. For students requiring restrictive activity as recommended by a physician, the appropriate modification of the activity will be made. Prerequisite: None
1114 Tennis for Beginners
This course is designed to develop the basic fundamental skills and understanding of the game of tennis and how it may enhance and improve one’s physical, mental and emotional state. For students requiring restrictive activity as recommended by a physician, the appropriate modification of the activity will be made.
Prerequisite: None

1116 Volleyball
This course will provide beginning volleyball skills development, with emphasis on the basic fundamentals and rules governing the game with an overview of its history. For students requiring restrictive activity as recommended by a physician, the appropriate modification of the activity will be made.
Prerequisite: None

1117 Figure Control
This course is designed to provide skilled development in body sculpturing as it relates to physical, mental and emotional development or total fitness. For students requiring restrictive activity as recommended by a physician, the appropriate modification of the activity will be made.
Prerequisite: None

1119 Golf
This course is designed to provide the student with the fundamental skills and understanding of the game of golf and how it enhances one’s physical, mental and emotional state. For students requiring restrictive activity as recommended by a physician, the appropriate modification of the activity will be made. (A nominal fee may apply at the activity site.)
Prerequisite: None

1122 Bodybuilding
This course will provide skilled development in body definition and an overview of the history of bodybuilding. For students requiring restrictive activity as recommended by a physician, the appropriate modification of the activity will be made.
Prerequisite: None

1123 Dance
This course will provide skill development in rhythms and dancing with emphasis on movement fitness and an overview of the history of dance and dance styles. For students requiring restrictive activity as recommended by a physician, the appropriate modification of the activity will be made.
Prerequisite: None
1129 Tennis II (Intermediate)
This tennis course is designed to develop strategies as they relate to the skill level of the student and demonstrate how tennismay enhance and improve one’s physical, mental and emotional state. For students requiring restrictive activity as recommended by a physician, the appropriate modification of the activity will be made. Prerequisite: PHED 1114 or Permission of the Instructor.

PHED Physical Fitness Courses 0-2-1
These courses examine the benefits of a healthy lifestyle and aerobic and anaerobic activities that promote physical and cardiovascular fitness. No prerequisite.

1126 Physical Fitness I
This course will provide an understanding that fitness is a physiological or functional capacity that improves the quality of life. Emphasis will be placed on cardiovascular development. For students requiring restrictive activity as recommended by a physician, the appropriate modification of the activity will be made. No Prerequisite.

1127 Physical Fitness II
This course will provide weight training skill development with an understanding of cardio-respiratory endurance, muscular strength and nutritional fitness. For students requiring restrictive activity as recommended by a physician, the appropriate modification of the activity will be made. Prerequisite: None

1128 Physical Fitness III
This course will provide skill development in the area of aerobic fitness, muscle strength, muscle endurance, flexibility and body composition. For students requiring restrictive activity as recommended by a physician, the appropriate modification of the activity will be made.
Prerequisite: None

PHED 1133 Adaptive Physical Education 0-3-3
This course is designed for students requiring restrictive activity as recommended by a physician. Remedial exercises or corrective physical education is provided for students needing limited activity, special exercises or resting positions under supervision for specific conditions. No prerequisite.

PHED 2101 Introduction to Physical Education and Health 3-0-3
This course surveys the history, philosophy, objectives and scope of the field of physical education, and introduces career opportunities in physical education, health and recreation. No prerequisite.
PHED 2105 Concepts of Health and Safety 3-0-3
This course explores methods of maintaining good physical health, safety in everyday living, and current critical health issues. No prerequisite.

PHED 2205 Leadership in HPER 3-0-3
This course addresses management theories and philosophies as they apply to leadership positions in health, physical education, and recreation. Topics include control mechanisms, program development, and facility design. No prerequisite.

PHED 2230 Introduction to Community Recreation 3-0-3
This course is an orientation to the principles of leadership, organizing community resources and collecting data necessary for determining the community’s recreational philosophies. No prerequisite.

PHED 2231 Principles of Recreation in Modern Society 3-0-3
This course presents the history, principles and techniques of recreational programs in contemporary society. No prerequisite.

PHED 2232 Personal and Community Health 3-0-3
This course examines the physical, mental, and social aspects of personal and community health problems. No prerequisite.

PHED 2234 Early Childhood Health and Wellness 3-0-3
The purpose of this course is to enable students to plan, organize and conduct a physical education program for children ages birth to five years. Specific guidelines for the physical activity of children of this age will be developed to address the unique characteristics and needs of the developing child. Students will be provided background knowledge about physical education content, movement concepts and skill themes. They will also be provided with fitness concepts that can be taught to children ages birth to five years. No prerequisite.

PHED 2240 First Aid 3-0-3
This course offers instruction in emergency first aid and CPR. Instruction is consistent with the American Red Cross requirements for certification. No prerequisite.

PHED 2241 Sports Officiating 3-0-3
This course presents rules, practices and skills for officiating in individual and team sports. No prerequisite.

PHED 2242 Introduction to Body Mechanics 3-0-3
This course provides the student with principles of fitness, including exercise, nutrition, diet, self-analysis, relaxation, posture movement, and sport activity analysis. No prerequisite.
PHED 2243 Seminar on Recreation 3-0-3
This course is a study of recreation programs for children, adolescents, the
disabled, and senior citizens. No prerequisite.

PHED 2252 Recreational Internship 0-3-3
In this course students obtain practical training and experience through
placement in recreational facilities and programs. No prerequisite.

PHED 2253 Low-Organized Games 3-0-3
This course provides instruction and practice in the basic skills, techniques, and
materials used in lead-up activities for elementary grades. No prerequisite.

PHYSICAL SCIENCE (DIVISION OF SCIENCE, MATHEMATICS
AND HEALTH PROFESSIONS)

PHYS 1011 Physical Science I 3-0-3
Physical science is presented from a historical and humanistic viewpoint for non-
science majors. Emphasis is placed on the study of basic concepts using a
minimum of mathematics. Topics include fundamental concepts from physics,
chemistry and astronomy. Prerequisite: Exit or exemption from Learning Support Reading and Math. Corequisite: PLAB 1011.

*Satisfies College Preparatory Curriculum (CPC) in Science when cross-
referenced as PHYS 1010 and PLAB 1010. PHYS 1011 cannot be repeated for
credit if taken to satisfy a CPC requirement.

PLAB 1011 Physical Science I Lab 0-2-1
This is the laboratory component of PHYS 1011. Lab experiments and activities
include: scientific measurement, data analysis, force, velocity, acceleration,
Kepler’s Law and Planetary Motion, and Hubble’s Law. Prerequisite: Exit or
exemption from Learning Support Reading and Math. Corequisite: PHYS 1011.

*Satisfies College Preparatory Curriculum (CPC) in Science when cross-
referenced as PLAB 1010. PHYS 1011 cannot be repeated for credit if taken to
satisfy a CPC requirement.

PHYS 1012 Physical Science II 3-0-3
This course is a continuation of Physical Science I. Topics include: wave motion,
electromagnetism, and atomic theory, structure of matter, quantum theory and
nuclear physics. Also included is a study of man’s relationship with his
environment, with emphasis on ecological problems. Prerequisite: Exit or
exemption from Learning Support Reading and Math.

*Satisfies College Preparatory Curriculum (CPC) in Science when cross-
referenced as PHYS 1010 and PLAB 1010. PHYS 1012 cannot be repeated for
credit if taken to satisfy a CPC requirement.
PLAB 1012 Physical Science II Lab
This is the laboratory component of PHYS 1012. Lab experiments and activities include: wave motion, magnetic lines of force, Ohm’s Law, reflection, refraction, lenses. Prerequisite: Exit or exemption from Learning Support Reading and Math; corequisite: PHYS 1012.

*Satisfies College Preparatory Curriculum (CPC) in Science when cross-referenced as PLAB1010 and PLAB1012 cannot be repeated for credit if taken to satisfy a CPC requirement.

PHYSICS (DIVISION OF SCIENCE, MATHEMATICS AND HEALTH PROFESSIONS)

PHYS 1111 General Physics I
This is the first in a two-course sequence which provides an introduction to basic physics concepts. Topics include classical mechanics and thermodynamics. Prerequisites: Exit or exemption from Learning Support English and Reading and MATH 1113 or permission of the instructor. Corequisites: PLAB 1111.

PLAB 1111 General Physics I Lab
This is a laboratory to accompany PHYS 1111. Experiments are designed to reinforce lecture concepts. Laboratory topics include measurement, classical mechanics, and thermodynamics. Corequisites: PHYS 1111 or permission of the instructor.

PHYS 1112 General Physics II
This is the second in a two-course sequence which provides an introduction to basic physics concepts. Topics include oscillations, wave motion, electromagnetism, optics, and modern physics. Prerequisites: PHYS 1111 and PLAB 1111 or permission of the instructor. Corequisites: PHYS 1112

PLAB 1112 General Physics II Lab
This is a laboratory to accompany PHYS 1112. Experiments are designed to reinforce lecture concepts. Laboratory topics include wave motion, electricity, magnetism, and optics. Prerequisites: PHYS 1111 and PLAB 1111 or permission of the instructor. Corequisites: PHYS 1112.

PHYS 2211 Principles of Physics I
This is the first in a calculus-based two-course sequence which provides an introduction to basic physics concepts. Topics include classical mechanics and thermodynamics. Prerequisites: Exit or exemption from Learning Support English and Reading and MATH 2201 or permission of the instructor. Corequisites: PLAB 2211.
PLAB 2211 Principles of Physics I Lab 0-3-1
This is a laboratory to accompany PHYS 2211. Experiments are designed to reinforce lecture concepts. Laboratory topics include measurement, classical mechanics and thermodynamics. Corequisites: PHYS 2211 or permission of the instructor.

PHYS 2212 Principles of Physics II 3-0-3
This is the second in a calculus-based two-course sequence which provides an introduction to basic physics concepts. Topics include oscillations, wave motion, electromagnetism, optics, and modern physics. Prerequisites: PHYS 2211 and PLAB 2211 or permission of the instructor. Corequisites: PLAB 2212.

PLAB 2212 Principles of Physics II Lab 0-3-1
This is a laboratory to accompany PHYS 1112. Experiments are designed to reinforce lecture concepts. Laboratory topics include wave motion, electricity, magnetism, and optics. Prerequisites: PHYS 2211 and PLAB 2211 or permission of the instructor. Corequisites: PHYS 2212.

PHYS 2245 Introduction to Undergraduate Research Instrumentation 1-2-2
This course includes a study of the instruments and techniques commonly used in science laboratories. Instrumentation and techniques to be studied include but are not limited to: spectroscopy, chromatography, electrophoresis, pH determination, DNA biotechnology, solution preparation and data collection with remote sensing equipment and techniques. Prerequisite: A grade of “C” or better in a 2000-level biology, chemistry or physics course or permission of the instructor.

PHYS 2246 Topics in Science 1-2-2
This course provides students with opportunities to explore current topics and problems in terms of underlying principles of biology, chemistry and physics. This course is comparative and has an interdisciplinary flavor in that the socioeconomic, cultural, ethical and political aspects of such topics as genetic engineering, environmental chemistry, laser technology and earth systems science are discussed. Prerequisite: A grade of “C” or better in a 2000-level biology, chemistry or physics course or permission of the instructor.

PRIOR LEARNING ASSESSMENT DOCUMENTATION

PLAD 2000 2-0-2
Atlanta Metropolitan State College students may also enroll in PLAD2000 course to document their prior learning. This course teaches students how to prepare and submit a portfolio that documents their prior learning experiences,
competencies, training, and certifications in a way that aligns with specific course learning objectives. Institutional credit only.

POLITICAL SCIENCE (DIVISION OF SOCIAL SCIENCES)

POLS 1101 American Government 3-0-3
This course is a study of the American system of government with emphasis on the structure, functions, institutions, and processes for participation in the American political system. Attention is also focused on Georgia government. This course satisfies the state requirement for study of the United States and Georgia constitutions. (Students given College transfer credit for United States History and American Government earned at non-University System of Georgia institutions may satisfy the United States and Georgia History and United States and Georgia Constitution requirements by taking and passing HIST 2114 (Georgia History) at Atlanta Metropolitan State College.) Prerequisite: Exit or exemption from Learning Support Reading.

POLS 1201 Honors American Government 3-0-3
This course is a study of the American system of government focusing on the structure, institutions, functions and processes for participation in the American political system. Attention is also focused on Georgia government. Emphasis is placed upon critical reading, advanced research papers and reports, and upon student-led discussions. (Students given College transfer credit for United States History and American Government earned at non-University System of Georgia institutions may satisfy the United States and Georgia History and United States and Georgia Constitution requirements by taking and passing HIST 2114 (Georgia History) at Atlanta Metropolitan State College.) Prerequisites: Exit or exemption from Learning Support Reading, English and Mathematics.

POLS 2101 Introduction to Political Science 3-0-3
This course introduces students to political science and its sub-fields, focusing on theories, ideologies, methodologies, foundations, institutions, and organizations. Emphasis is placed on developing and enhancing critical thinking, analysis, writing, and research skills. Prerequisites: Exit or exemption from Learning Support Reading and English.

POLS 2103 Introduction to American Public Policy 3-0-3
This course examines the policy-making process in the United States and the politics of policy-making, including the major actors that impact decision-making. Emphasis is placed on developing and enhancing critical thinking, analysis, writing, and research skills. Prerequisites: Exit or exemption from Learning Support Reading and English.
POLS 2301 Introduction to Comparative Politics 3-0-3
This course introduces students to comparative politics, which is a sub-field of political science. Theories, methodologies, foundations, structures, institutions, functions, implementation, and processes of political systems of the world will be compared and contrasted. Emphasis is placed on developing and enhancing critical thinking, analysis, writing, and research skills. Prerequisites: Exit or exemption from Learning Support Reading and English.

POLS 2401 Global Issues 3-0-3
This course introduces students to global issues and world politics. World issues such as war, hunger, poverty, globalization, trade, global warming, genocide, immigration, human rights, population control, terrorism, natural resources, development, and world politics will be compared and contrasted. Post-industrial, industrializing, and developing countries, as well as multi-national corporations, world organizations, trade organizations, and trading blocs will also be analyzed. Emphasis is placed on developing and enhancing critical thinking, analysis, writing, and research skills. Prerequisites: Exit or exemption from Learning Support Reading and English.

POLS 2601 Introduction to Public Administration 3-0-3
This course introduces students to public administration, which is a sub-field of political science. Administrative aspects of political science will be examined, focusing on concepts and methods used to analyze public policy, political systems, governmental structures, bureaucracy, government and public management, and public policy planning. Research will focus on public policy issues that impact the rapid growth that has been experienced in Georgia, especially the Atlanta metropolitan area, over the past two decades. Prerequisites: Exit or exemption from Learning Support Reading and English.

PSYCHOLOGY (DIVISION OF SOCIAL SCIENCES)

EDPY 2040 Educational Psychology 3-0-3
This course consists of the application of psychological research related to learner characteristics, the educational environment, teaching practices and learning efficiency and effectiveness. It also focuses on constructs and research such as motivation, behavioral principles, observation and measurement of student behaviors related to academic and social learning, methods of measure application to the classroom, current research that defines best teaching practices and classroom management and disciplinary practices. Prerequisite: PSYC 1101 Introduction to General Psychology and/or EDUC 1105 Introduction to Foundations of Education in American Society or EDUC 2101 Introduction to Education.
**PSYC 1101 Introduction to General Psychology** 3-0-3  
This course provides a broad survey of the major topics in psychology, including, but not limited to, research methodology, biological and social factors influencing behavior, development, learning, memory, personality, and abnormality. Prerequisites: Exit or exemption from Learning Support Reading.

**PSYC 2101 Introduction to the Psychology of Adjustment** 3-0-3  
This course consists of an introductory examination of the applied psychological theory and research concerning mental health and well-being. Prerequisites: Exit or exemption from Learning Support Reading and PSYC 1101.

**PSYC 2102 Psychology of Child Development** 3-0-3  
This course provides an introduction to child development from birth to adolescence. The nature of developmental changes during infancy and childhood are discussed, as well as theory, research methods and the interpretation of empirical findings. Prerequisites: Exit or exemption from Learning Support Reading English and Math.

**PSYC 2103 Human Growth and Development** 3-0-3  
This course is an introductory, non laboratory-based examination of human development across the life span with emphasis on normal patterns of physical, cognitive, and social development. Prerequisites: Exit or exemption from Learning Support Reading and PSYC 1101.

**PSYC 2201 Honors Introduction to General Psychology** 3-0-3  
This Honors course offers an intense examination of major historical and contemporary theories in psychology. Prerequisites: Exit or exemption from Learning Support Reading, English and Mathematics.

**PSYC 2211 Introduction to Abnormal Psychology** 3-0-3  
This course emphasizes behavioral and mental disorders, their distribution, sources, symptoms, life history, and treatment. Prerequisites: Exit or exemption from Learning Support Reading and PSYC 1101.

**PSYC 2212 African American Psychology** 3-0-3  
This course examines issues related to African American personality development and well-being, as well as social, psychological, political, and historical causes and consequences of racism, prejudice, bigotry, discrimination, and ethnocentrism. Prerequisites: Exit or exemption from Learning Support Reading and PSYC 1101.
READING (DIVISION OF HUMANITIES AND FINE ARTS)

READ 0099 Reading Foundations II 4-0-4
Reading 0099 is an exit-level course designed to reinforce vocabulary, inference, critical reading and study skills. The course includes classroom instruction and individualized computer laboratory practice using computer-assisted instructional materials. Prerequisite: Satisfactory score on the COMPASS Placement Examination. Institutional credit only.

READ 0099E  Reading Foundations II (ESL) 4-0-4
Reading 0099E is an exit-level course intended for ESL students and designed to reinforce vocabulary, inference, critical reading skills, and study skills. Problems difficult for ESL students, such as idiomatic English, stylistic techniques, and structural patterns within longer texts, receive attention. Students examine assumptions and thinking that underlie passages and consider cultural contexts as part of meaning. The course includes classroom instruction and individualized laboratory practice using computer-assisted instructional materials. Prerequisite: A satisfactory score on the COMPASS Placement Examination. Institutional Credit Only.

RELIGION (DIVISION OF HUMANITIES AND FINE ARTS)

RELI 2201 Introduction to Religious Studies 3-0-3
This course introduces the study of religion as a personal, cultural and cross-cultural phenomenon. Attention is given to the relationship between religious writings and religious beliefs, to the development of religious traditions, and to the impact of religious ideas on personal and social values in the United States. Prerequisites: Exit or exemption from Learning Support Reading and English.

SOCILOGY (DIVISION OF SOCIAL SCIENCES)

SOCI 1101 Introduction to Sociology 3-0-3
This course surveys the discipline of sociology and its means of explaining patterns found in social behavior incorporating a global perspective. Topics covered include: marriage and family relationships, class and race relations, deviant social behaviors, world population issues, and other modern global social problems. Prerequisite: Exit or exemption from Learning Support Reading and English.

SOCI 1160 Introduction to Social Problems 3-0-3
This course presents data and theories to analyze selected major social problems confronting American society. Prerequisite: Exit or exemption from Learning Support Reading and English.
SOCI 1201 Honors Introduction to Sociology 3-0-3
This course provides an in-depth survey of the discipline of sociology. Topics include sociological theory, methods, and selected substantive issues. Emphasis is placed upon critical reading, advanced research papers and reports, and upon student-led discussions. Prerequisite: Exit or exemption from Learning Support Reading, English and Mathematics.

SOCI 1206 Introduction to Gerontology 3-0-3
This course is an introduction to the sociological study which examines institutional and social interactive factors involved in the process of aging in our society. Prerequisite: Exit or exemption from Learning Support Reading and English.

SOCI 1260 Global Problems 3-0-3
This course examines the various dimensions of globalization, and the social problems of inequality, war and violence, and environmental sustainability that are occurring on a global scale. Prerequisite: Exit or exemption from Learning Support Reading and English.

SOSC 2101 Introduction to African American Studies 3-0-3
This course provides an interdisciplinary analysis of the forces which shaped the historical and contemporary experiences of African Americans, as well as the development and functioning of selected African American social institutions. Prerequisites: Exit or exemption from Learning Support Reading and English.

SOCI 2201 Introduction to Urban Studies 3-0-3
This course offers an introduction to the study of the process of urbanization and its consequences on people and society as seen by comparing lifestyles along the rural-urban continuum; the relationship of the emergence of the city to events of historical, social, and political economic significance; and the nature and solution of urban problems. Prerequisite: Exit or exemption from Learning Support Reading and English.

SOCI 2216 Introduction to Urban Services 3-0-3
This course provides an overview of human and urban services, their role and delivery, and the types of agencies and their functions. Prerequisites: Exit or exemption from Learning Support Reading and English.

SOCI 2217 Problems In Urban Life 3-0-3
This course is a study of selected topics and conditions in the urban environment with emphasis upon an analysis of contemporary problems in urban societies and possible solutions. Prerequisites: Exit or exemption from Learning Support Reading, English, and SOCI 2201.
SOCI 2250 Society, Culture and Personality Stress 3-0-3
This course provides an introduction to social institutions as expressions of cultures, to patterns and quality of social relationships evolved through institutions, and to their influences on personality status. Prerequisites: Exit or exemption from Learning Support Reading and English.

SOCI 2283 Introduction to Human Sexuality 3-0-3
This course introduces psychological, social, and cultural dimensions of human sexuality through study of religious philosophies and the theories and findings of both natural science (biology) and the social and behavioral sciences (anthropology, sociology, and psychology). Prerequisites: Exit or exemption from Learning Support Reading and English.

SOCI 2293 Introduction to Marriage and the Family 3-0-3
This course offers an introduction to the structure, processes, problems, and adjustments of contemporary marriage and family life. Prerequisites: Exit or exemption from Learning Support Reading and English.

SOCIAL SCIENCE (DIVISION OF SOCIAL SCIENCES)

SOSC 1101 Introduction to the Social Sciences 3-0-3
This course is an introduction to the disciplines of the social sciences with emphasis on the distinctiveness and interconnections of the disciplines. Prerequisite: Exit or exemption from Learning Support Reading.

SOSC 2101 Introduction to African American Studies 3-0-3
This course provides an interdisciplinary analysis of the forces which shaped the historical and contemporary experiences of African Americans, as well as the development and functioning of selected African American social institutions. Prerequisites: Exit or exemption from Learning Support Reading and English.

SOSC 2125 Introduction to Social Science Research Methods 3-0-3
This course provides a conceptual and practical introduction to social science research methods. Prerequisites: Exit or exemption from Learning Support Reading, English, and Mathematics.

SOSC 2225 Statistics for the Social Sciences 3-0-3
This course examines descriptive and inferential methods of statistical analysis with emphasis on the application and interpretation of statistics in social science disciplines. Prerequisite: MATH 1111.

SOSC 2245 Introduction to Women’s Studies 3-0-3
This course examines the current status of theory and research on women’s psychology, sociology, educational and economic experiences and behaviors.
Emphasis is placed on class, racial, and ethnic variations in experience. Coverage includes historical perspectives, and issues of choice as they relate to stereotypes, status, psychological adjustment, and diversity in women. Gender differences and the theories advanced to understand such differences are evaluated critically. Prerequisites: Exit or exemption from Learning Support Reading, English and Math, PSYC 1101 Introduction to General Psychology and/or SOCI 1101 Introduction to Sociology.

SOCIAL WORK (DIVISION OF SOCIAL SCIENCES)

SOWK 2000 Introduction to Social Work 3-0-3
This course surveys the history and philosophy of social work and social services, as well as the methodology and techniques in case work, group work, and community organizations. Emphasis is placed on the various types of social workers, their duties and responsibilities. Prerequisites: Exit or exemption from Learning Support Reading and English.

SOWK 2100 Introduction to Social Welfare 3-0-3
This course provides an overview of the public welfare field, its origins, historical development, functions, and contemporary concerns. Emphasis is on the practice of social work in public and private welfare agencies. Prerequisites: Exit or exemption from Learning Support Reading and English.

SOWK 2200 Human Behavior in the Social Environment 3-0-3
This course represents a foundation for developing social work techniques and practices with individuals, families and groups. Students will examine human behavioral theory and social institutional applications in current social welfare practices. The intent is to develop an initial working repertoire of social work skills used in various direct family and individual, clinical, and community practice applications. Prerequisites: Exit or exemption from Learning Support Reading and English and PSYC 1101 Introduction to General Psychology and/or SOCI 1101 Introduction to Sociology, and SOWK 2000 Introduction to Social Work.

SPANISH (DIVISION OF HUMANITIES AND FINE ARTS)

SPAN 1001 Elementary Spanish I 3-0-3
This course is designed to introduce students to Spanish, using all four skills: listening, speaking, reading and writing. The culture of Spanish-speaking regions is integrated into the course. Prerequisite: Exit or exemption from Learning Support English and Reading. Not open to native speakers of Spanish. Note: This course will not meet degree requirements at some University System of Georgia institutions.
*Satisfies College Preparatory Curriculum (CPC) requirement in Foreign Language when cross-referenced as SPAN 1000 but cannot be repeated for credit.

**SPAN 1002 Elementary Spanish II** 3-0-3  
This course continues and completes the introduction of major grammatical points begun in SPAN 1001. All four language skills are included. Prerequisites: Exit or exemption from Learning Support Reading and English, and Spanish 1001, or one year of high school Spanish, or the equivalent. Not open to native speakers of Spanish.

**SPAN 2001 Intermediate Spanish I** 3-0-3  
This course is a continuation of SPAN 1002, with an emphasis on advanced grammar skills. Extensive speaking and reading comprehension are practiced. Prerequisite: SPAN 1002, or two years of high school Spanish, or the equivalent.

**SPAN 2002 Intermediate Spanish II** 3-0-3  
This course continues the work of SPAN 2001, including extensive practice in reading, writing and true conversational Spanish. Spanish culture is also emphasized. Outside readings are used. Prerequisite: SPAN 2001, or three years of high school Spanish, or the equivalent.

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**THEATER (DIVISION OF HUMANITIES AND FINE ARTS)**

**THEA 1100 Theater Appreciation** 3-0-3  
This course provides a survey and critical appreciation of theater. It brings together historical perspectives, basic elements of theater, and critical analysis; emphasis is placed on developing a sense of theater aesthetics. No prerequisite.

**THEA 1105 Performance Studies** 3-0-3  
This course provides students with an opportunity to select, interpret and present various styles of prose and poetry. Presentational skills focus on voice and breath. No prerequisite.