

# ARKANSAS COURSE TRANSFER SYSTEM

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# ARKANSAS COURSE TRANSFER SYSTEM

## Course Descriptions

### ANTH 1013 Introduction to Anthropology

**General Description:**

An exploration of human diversity and the four sub-fields of anthropology: archaeology, cultural anthropology, linguistic anthropology, and physical anthropology.

**Expected Student Learning Outcomes:**

The student will demonstrate:

- An understanding and application of basic concepts and terms of anthropology.
- An understanding of basic anthropological theories.
- An awareness of physical, cultural, and linguistic diversity.
- The ability to think critically, analytically, holistically, and relate anthropological concepts to everyday life.

### ANTH 2013 Cultural Anthropology

**General Description:**

A study of the key concepts, methods, and theories of cultural diversity, social institutions, linguistics, and an examination of people and cultures around the world.

**Expected Student Learning Outcomes:**

The student will demonstrate:

- Understanding of primary social institutions.
- Understanding of ethnocentrism and cultural relativity.
- Understanding of techniques and ethics of ethnographic field work.
- Understanding of relationships and interconnections among gender, race, ethnicity, and class.
- Ability to think critically, analytically, holistically, and relate cultural anthropological concepts to everyday life.

### ARTA 1003 Art Appreciation

**General Description:**

An introductory survey of the visual arts. Exploration of purposes and processes in the visual arts including evaluation of selected works, the role of art in various cultures, and the history of art.

**Expected Student Learning Outcomes:**

The student will:

- Analyze the nature and function of the visual arts.
- Identify and analyze visual elements and principles of design.
- Identify varied media associated with art processes.
- Identify characteristics of a given period of art.
- Identify selected works of various artists.
- Identify and analyze the role of art in various cultures.
- Write a short analysis based on an original work of art using terminology appropriate to the course.

### ARTA 2003 Art History Survey I

**General Description:**

Examination of painting, sculpture, architecture, and media from prehistoric to Renaissance periods.

**Expected Student Learning Outcomes:**

The student will:

- Identify and discuss selected works of art from prehistoric times to the Renaissance.
- Relate works of art to social and historical issues.
- Identify and explain the terms, methods, and modes of expression in media pertinent to the periods.
- Analyze and critique various art works through written analysis.
- Identify and analyze the creative process and how it relates to the cultures studied in the course.

### ARTA 2103 Art History Survey II

**General Description:**

Examination of painting, sculpture, architecture, and media from the Renaissance to the present time.

**Expected Student Learning Outcomes:**

The student will:

- Identify and discuss selected works of art from the Renaissance to the present time.
- Relate works of art to social and historical issues.
- Identify and explain the terms, methods, and modes of expression in media pertinent to the periods.
- Analyze and critique various art works through written analysis.
- Identify and analyze the creative process and how it relates to the cultures studied in the course.
- Demonstrate the ability to use basic research skills in art history.

## BIOL1004 Biology for Non-Majors

### **General Description:**

A survey of biology to include an introduction to the fundamental principles of living organisms including properties, organization, function, evolutionary adaptation, and classification. Introductory study of concepts of reproduction, genetics, ecology, and the scientific method are included. Not appropriate for biology or health science majors. Lab required.

### **Expected Student Learning Outcomes:**

The student will explain, describe, discuss, recognize, and/or apply knowledge and understanding of the following:

- Scientific method.
- Organismal structure and function, including all kingdoms.
- Cell structure and function.
- Genetics and reproduction.
- Ecology.
- Basic components of evolution and classification.
- Use of microscope and other lab equipment.

## BIOL1014 Biology for Majors

### **General Description:**

A study of the principles of biology. Provides the foundation for other advanced courses in the biological sciences. Includes an in-depth study of fundamental biological concepts including the scientific process, classification, structure and functions, cellular metabolism, evolution, and genetics. Appropriate for biology and health science majors, as well as general education. Lab required.

### **Expected Student Learning Outcomes:**

The student will explain, describe, discuss, recognize, and/or apply knowledge and understanding of the following:

- Scientific method
- Classification
- Cell and membrane structure and functions
- Biochemistry
- Enzymes
- Respiration and photosynthesis
- Mitosis and meiosis
- Metabolism
- Genetics
- DNA
- Evolution
- Use of microscope and other lab equipment

## **BIOL1024 Botany for Non-Majors**

### **General Description:**

A survey of botany to include the fundamental structure and function of plants and their economic importance. Introductory concepts of plant reproduction, the scientific method, photosynthesis, genetics, and ecology are included. Not appropriate for biology or health science majors. Lab required.

### **Expected Student Learning Outcomes:**

The student will explain, describe, discuss, recognize, and/or apply knowledge and understanding of the following:

- Scientific method
- General plant structure and function
- Plant reproduction
- Basic plant physiology, including photosynthesis
- Ecology
- Genetics
- Importance of plants in human nutrition
- Basic principles of plant production
- Basic classification and evolution
- Use of microscope and other lab equipment

## **BIOL 1034 Botany for Majors**

### **General Description:**

A scientific study of the principles of botany. Provides the foundation for other advanced courses in the biological sciences. Includes an in-depth study of the properties, structure and function, growth, and classifications of plants. Concepts of plant reproduction, photosynthesis, ecology, and genetics are included. Appropriate for biology majors. Lab required.

### **Expected Student Learning Outcomes:**

The student will explain, describe, discuss, recognize, and/or apply knowledge and understanding of the following:

- Scientific method
- Classification and evolution of plants
- Structure and function of vascular and non-vascular plants
- Plant reproduction, including mitosis and meiosis
- Photosynthesis and cellular respiration
- Requirements for plant growth
- Ecological relationships
- Use of microscope and other lab equipment

## BIOL 1054 Zoology

### **General Description:**

Introduction to zoological principles relating to cells, organ systems, development, genetics, ecology, evolution, and animal phyla. Course designed for biology majors, but may also be taken for general education. Lab required.

### **Expected Student Learning Outcomes:**

The student will explain, describe, discuss, recognize, and/or apply knowledge and understanding of the following:

- Classification and characteristics of phyla and classes
- Embryonic development
- Anatomy, function, and evolution of all organ systems in various classifications of animals:
  - Protozoan Groups
  - Porifera
  - Cnidaria
  - Platyhelminthes
  - Nematoda
  - Mollusca
  - Annelida
  - Arthropoda
  - Echinodermata
  - Chordata

The student will participate in animal dissections.

## BIOL 2004 Introductory Microbiology

### **General Description:**

Introductory course in microbiology. Includes microbiological concepts including the study of bacteria, viruses, fungi, and protozoa as they affect the human body. Designed for majors in health professions programs. Lab required.

### **Expected Student Learning Outcomes:**

The student will explain, describe, discuss, recognize, and/or apply knowledge and understanding of the following:

- History of microbiology
- Biological and chemical concepts, including metabolism, as applied to microorganisms
- Basic classification, characteristics and behavior of microorganisms
- Host-microbe interactions that result in infection
- Fundamentals of immunology
- Principles of asepsis, sterilization, and disinfection
- Principles of epidemiology as they apply to the effect of microorganisms on the human population
- General methods for the prevention and control of infectious disease transmission
- Microbial growth
- Microbial genetics



The student will explain, describe, discuss, recognize, and/or apply knowledge and understanding of the following lab activities:

- Use of microscope
- Preparation of stains
- General laboratory techniques, including but not limited to aseptic technique, streak plate, and identification methods.

## **BIOL 2404 Human Anatomy and Physiology I**

### **General Description:**

A two-semester study of the structure and functions of the organ systems of the human body and how they work together to maintain homeostasis. Designed for majors in health profession programs. Lab required.

**For transferability, Human Anatomy and Physiology I and II, or equivalent must be taken at the same institution.**

### **Expected Student Learning Outcomes:**

The student will explain, describe, discuss, recognize, and/or apply knowledge and understanding of the following:

- General body organization and function
- Basic biochemistry
- Cellular structure and function
- Metabolism
- Histology
- Integumentary system
- Skeletal system
- Joints
- Muscular system
- Nervous system
- Special senses
- Digestive system
- Reproductive system
- Blood
- Cardiovascular system
- Endocrine system
- Lymphatic system
- Respiratory system
- Urinary / excretory system
- Proper use of microscope, other lab equipment, and lab techniques.

The student will participate in dissections.

## **BIOL 2414 Human Anatomy and Physiology II**

### **General Description:**

A two-semester study of the structure and functions of the organ systems of the human body and how they work together to maintain homeostasis. Designed for majors in health

profession programs. Lab required.

**For transferability, Human Anatomy and Physiology I and II, or equivalent must be taken at the same institution.**

**Expected Student Learning Outcomes:**

The student will explain, describe, discuss, recognize, and/or apply knowledge and understanding of the following:

- General body organization and function
- Basic biochemistry
- Cellular structure and function
- Metabolism
- Histology
- Integumentary system
- Skeletal system
- Joints
- Muscular system
- Nervous system
- Special senses
- Digestive system
- Reproductive system
- Blood
- Cardiovascular system
- Endocrine system
- Lymphatic system
- Respiratory system
- Urinary / excretory system
- Proper use of microscope, other lab equipment, and lab techniques.

The student will participate in dissections.

## **CHEM 1004 Chemistry I for General Education**

**General Description:**

Survey course introducing Chemistry as it applies to the real world. Includes basic topics of scientific method, measurement, states of matter, atomic structure, periodic table, chemical properties, and chemical reactions. Appropriate for general education. Not appropriate for science majors. Lab required. **This is an algebra-based chemistry course, and it is strongly recommended that the student should have completed Intermediate Algebra with a “C” or better.**

**Expected Student Learning Outcomes:**

The student will explain, describe, discuss, recognize, and/or apply knowledge of the following:

- Scientific method
- Basic measurement
- States of matter
- Atomic structure

- Periodic Table
- Chemical bonding
- Chemical reactions
- Acids and bases
- Solutions

## CHEM 1214 Chemistry for Health-Related Professions

### **General Description:**

Algebra-based chemistry course specifically designed for majors in health-related professions and is not appropriate for chemistry or other science majors or pre-professional students. Course content provides a foundation for work in health-related areas. The course includes nomenclature, atomic and molecular structure, bonding, and reactions. Lab required. **This is an algebra-based chemistry course, and it is strongly recommended that the student should have completed Intermediate Algebra with a “C” or better.**

### **Expected Student Learning Outcomes:**

The student will explain, describe, discuss, recognize, and apply knowledge of the following:

- Measurements and unit conversions
- Structure and composition of the atom
- Periodic table
- Ionic and covalent bonding
- Inorganic nomenclature
- Chemical reactions
- Basic Stoichiometry
- Gas laws
- Solutions
- Energy of reactions
- Acid/base reactions and equilibria
- Identifying Oxidation-Reduction Reactions
- Nuclear Chemistry

## CHEM 1224 Chemistry II for Health-Related Professions

### **General Description:**

Continuation of CHEM 1214 designed for majors in health-related professions. Introductory course in organic chemistry and biochemistry. Lab required. **This is an algebra-based chemistry course, and it is strongly recommended that the student should have completed Intermediate Algebra and Chemistry I for Health Related Professions (CHEM 1214) with a “C” or better.**

### **Expected Student Learning Outcomes:**

The student will explain, describe, discuss, recognize, and apply knowledge of the following:

- Major organic functional groups

- Organic Nomenclature
- Functional group reactions
- Carbohydrates
- Lipids
- Proteins and Nucleic Acids
- Enzymes
- Metabolism

## CHEM 1414 Chemistry I for Science Majors

### **General Description:**

Algebra-based chemistry course applicable for chemistry and other science majors, and pre-professional students. This is the first course of a two-course sequence. Course content provides a foundation for work in advanced chemistry and related sciences. The course includes in-depth study of nomenclature, atomic and molecular structure, stoichiometry, bonding, and reactions. Lab required. **This is an algebra-based chemistry course and it is strongly recommended that the student should have completed Intermediate Algebra with a “C” or better.**

Successful completion of a lower-level chemistry course is recommended prior to taking Chemistry I for science majors.

### **Expected Student Learning Outcomes:**

The student will explain, describe, discuss, recognize, and apply knowledge of the following:

- Chemical reactions
- Gases and the kinetic-molecular theory
- Nuclear chemistry
- Quantum theory and atomic structure
- Electron configuration and chemical periodicity
- Stoichiometry
- Valence bond theory and molecular orbital theory
- Inorganic Nomenclature
- Thermochemistry

## CHEM 1424 Chemistry II for Science Majors

### **General Description:**

Continuation of CHEM 1414. Designed for chemistry and other science majors, and pre-professional students. Includes more in-depth study of chemical reactions. Lab required. **This is an algebra-based chemistry course and it is strongly recommended that the student should have completed College Algebra (MATH 1103) and Chemistry I for Science Majors (CHEM 1414) with a “C” or better.**

### **Expected Student Learning Outcomes:**

The student will explain, describe, discuss, recognize, and apply knowledge of the following:

- Intermolecular forces

- Properties of solutions
- Thermodynamics
- Chemical Kinetics
- Mechanisms of chemical reactions
- Acid/base theory
- Equilibrium of chemical reactions, including solubility
- Equilibrium of acid/base mixtures, including titration
- Oxidation-reduction
- Electrochemistry

### CPSI 1003 Introduction to Computers

*Some institutions offer this course in 1-hour modules; a group of modules might be transferred. In order to be awarded 3 hours of transfer credit, the entire institutional block must be taken.*

#### **General Description:**

Introductory course in the use of computer application software. Includes basic functions of computer system components.

#### **Expected Student Learning Outcomes:**

The student will:

- Demonstrate knowledge of the fundamentals of computers and computer terminology commonly used with computer hardware and software to accept input, process data, and store data.
- Demonstrate key file management skills.
- Use at a basic level word processing, spreadsheet, and database applications. May include presentation software and other applications.
- Use the Internet to find information.

### CRJU 1023 Introduction to Criminal Justice

#### **General Description:**

An overview of the history, philosophy and development of the criminal justice system, emphasizing an understanding of law enforcement, the courts and corrections, and their respective roles in accomplishing the missions of the American criminal justice system.

#### **Expected Student Learning Outcomes:**

The student will demonstrate:

- A basic understanding of criminal justice terminology, trends, and the operation of the system in theory and practice.
- Understanding of the functions of law enforcement, courts, & correctional agencies.
- A basic knowledge of the evolution and application of law and philosophies of sentencing.
- A comprehensive understanding of the American criminal justice system including its history, purposes, organization, procedures and processes.
- A knowledge of how American criminal justice system function in a culturally

- diverse society.
- An ability to understand and discuss the ethics involved in the criminal justice system.

## CSEC 1303 Introduction to Cybersecurity

### **General Description:**

This course introduces general cybersecurity principles for majors or non-majors. This includes understanding cybersecurity offense and defense, the role of cybersecurity professionals, and legal and ethical principles.

### **Expected Student Learning Outcomes:**

The student will:

- Describe the principles of confidentiality, integrity, and availability.
- Identify risks, threats, attacks, and vulnerabilities related to cybersecurity.
- Explain how cybersecurity professionals use technologies, processes, and procedures.
- Recognize the application of legal and ethical principles related to cybersecurity.

## DASC 1003 Introduction to Data Science

### **General Description:**

This course provides an overview of Data Science for majors and non-majors. This course includes an introduction to the data science analytics process (data analysis life cycle); the importance of ethics and privacy with data and guidelines; training in and applying critical thinking skills to real-world open-ended problems; communicating conclusions and recommendations to diverse audiences in visual, verbal, and written form; applications to various domains; and knowledge and use of the tools of data science.

### **Expected Student Learning Outcomes:**

- Demonstrate understanding of the data science analytics process (Data Analysis Life Cycle included).
- Demonstrate an understanding of the importance of ethics and privacy with data and guidelines and real-world examples.
- Demonstrate applying critical thinking skills to open-ended problems.
- Demonstrate communicating results, conclusions, and recommendations with diverse audiences.
- Demonstrate basic knowledge of the application domains for data science: medical sciences & healthcare, bioinformatics, agriculture, cybersecurity, business, education.
- Demonstrate knowledge of data origins, sources, types of data & metadata.
- Demonstrate applying the principles of and evaluate the data quality: biased, faulty, dirty, redundant, etc.
- Demonstrate understanding of modeling types (descriptive, predictive, and prescriptive) and potential value for resampling for validation.

- Demonstrate solving real-world open-ended problems using Data Science analyses, processes, and tools.
- Knowledge of the Tools of Data Science: Excel, R, Python, SAS, Tableau, PowerBI, Jupyter notebooks, and additional appropriate tools to follow over time.

### DRAM 1003 Theatre Appreciation

#### **General Description:**

An introductory survey of theatre arts including history, dramatic works, stage techniques, production procedures, as it relates to the fine arts, society, and the individual.

#### **Expected Student Learning Outcomes:**

The successful student will be able to:

- Analyze the nature and function of theatrical performance.
- Identify and explain terminology related to theatre arts.
- Identify the nature and function of theatre arts and society.
- Identify the various genre and styles of theatre.
- Identify the uniqueness and role of various theatrical artists in the collaborative creative process.
- Identify the characteristics of theatre and important artists and their contributions to the theatre during various historical eras.
- Attend a live performance and write a critique of the experience using terminology appropriate to the course.

### ECON 2103 Principles of Macroeconomics

#### **General Description:**

Theory and application of economics to behavior of economy as a whole.

#### **Expected Student Learning Outcomes:**

Student should be able to describe and apply the concepts embedded in the following topics:

- Aggregate Supply & Demand
- National Income Accounting
- Business Cycles
- Inflation & Unemployment
- Money and Banking
- Fiscal Policy
- Monetary Policy
- Economic Growth
- International Finance (trade)

## ECON 2203 Principles of Microeconomics

### **General Description:**

Theory and application of economic principles to the production, distribution and exchange of goods and services.

### **Expected Student Learning Outcomes:**

Student should be able to describe and apply the concepts embedded in the following topics:

- Basic Principles of Supply & Demand
- Elasticity
- Production & Costs
- Market Structures
- Factor Markets
- International Economics

## ENGL1013 Composition I

### **General Description:**

Principles and techniques of expository and persuasive composition, analysis of texts with introduction to research methods, and critical thinking.

### **Expected Student Learning Outcomes:**

The student will:

- Respond appropriately to various rhetorical situations, purposes, and audiences.
- Use writing and reading for inquiry, learning, thinking, and communicating.
- Integrate original ideas with those of others.
- Develop flexible strategies for generating, revising, editing, and proof-reading.
- Use collaborative writing processes.
- Demonstrate knowledge of structure, paragraphing, tone, mechanics, syntax, grammar, and documentation.

## ENGL1023 Composition II

### **General Description:**

Further study of principles and techniques of expository and persuasive composition, analysis of texts, research methods, and critical thinking.

**It is strongly recommended that the student should have completed ENGL 1013 (Composition I) with a “C” or better.**

### **Expected Student Learning Outcomes:**

The student will demonstrate an advanced application of outcomes expected in ENGL1013.

- Respond appropriately to various rhetorical situations, purposes, and audiences.
- Use writing and reading for inquiry, learning, thinking, and communicating.
- Integrate original ideas with those of others.
- Develop flexible strategies for generating, revising, editing, and proof-reading.



- Use collaborative writing processes.
- Demonstrate knowledge of structure, paragraphing, tone, mechanics, syntax, grammar, and documentation.

### ENGL 2013 Introduction to Creative Writing

**General Description:**

Practical experience in the techniques of writing poetry and fiction. **It is strongly recommended that the student should have completed ENGL 1013 (Composition I) with a “C” or better.**

**Expected Student Learning Outcomes:**

The student will:

- Generate creative writing projects in both prose and verse.
- Learn techniques, styles, and forms for imaginative writing.
- Participate constructively in a workshop environment.
- Explore structures and techniques used in published fiction and poetry.

### ENGL 2023 Introduction to Technical Writing

**General Description:**

Principles of researching, organizing, and writing technical documents. **It is strongly recommended that the student should have completed ENGL 1013 (Composition I) with a “C” or better.**

**Expected Student Learning Outcomes:**

The student will:

- Generate technical documents in a variety of formats, including letters, memos, proposals, and reports.
- Use collaborative writing processes.
- Learn to integrate visuals.
- Use technology in the creation of technical documents.

### ENGL 2113 World Literature I

**General Description:**

Selected significant works of world literature from ancient, medieval, and renaissance periods. Includes study of movements, schools, and periods.

**Expected Student Learning Outcomes:**

The student will:

- Understand significant literary and cultural developments in world civilizations.
- Understand the interaction of various literary and cultural traditions.
- Achieve familiarity with enduring expressions of human thought by studying major texts of world literature, including the study of literary techniques, forms, and ideas.
- Complete a significant analytical writing component.

## ENGL 2123 World Literature II

### **General Description:**

Selected significant works of world literature from the Renaissance to the present. Includes study of movements, schools, and periods.

### **Expected Student Learning Outcomes:**

The student will:

- Understand significant literary and cultural developments in world civilizations.
- Understand the interaction of various literary and cultural traditions.
- Achieve familiarity with enduring expressions of human thought by studying major texts of world literature, including the study of literary techniques, forms, and ideas.
- Complete a significant analytical writing component.

## ENGL 2213 Western Literature I

### **General Description:**

Selected significant works of western literature from ancient, medieval, and renaissance periods. Includes study of movements, schools, and periods.

### **Expected Student Learning Outcomes:**

The student will:

- Understand significant literary and cultural developments in western civilization.
- Understand the interaction of various literary and cultural traditions.
- Achieve familiarity with enduring expressions of human thought by studying major texts of western literature, including the study of literary techniques, forms, and ideas.
- Complete a significant analytical writing component.

## ENGL 2223 Western Literature II

### **General Description:**

Selected significant works of western literature from the Renaissance to the present. Includes study of movements, schools, and periods.

### **Expected Student Learning Outcomes:**

The student will:

- Understand significant literary and cultural developments in western civilization.
- Understand the interaction of various literary and cultural traditions.
- Achieve familiarity with enduring expressions of human thought by studying major texts of western literature, including the study of literary techniques, forms, and ideas.
- Complete a significant analytical writing component.

## ENGL 2653 American Literature I

### **General Description:**

Selected works of American literature from its beginnings to 1865. **It is strongly recommended that the student should have completed ENGL 1023 (Composition II) with a “C” or better.**

### **Expected Student Learning Outcomes:**

The student will:

- Read, analyze, and interpret works by representative American writers.
- Identify various literary techniques, methods, and ideas.
- Illustrate how literature reflects culture and society.
- Write at least one interpretive paper.

## ENGL 2663 American Literature II

### **General Description:**

Selected works of American literature from 1865 to present. **It is strongly recommended that the student should have completed ENGL 1023 (Composition II) with a “C” or better.**

### **Expected Student Learning Outcomes:**

The student will:

- Read, analyze, and interpret works by representative American writers.
- Identify various literary techniques, methods, and ideas.
- Illustrate how literature reflects culture and society.
- Write at least one interpretive paper.

## ENGL 2673 British Literature I

### **General Description:**

Selected works of British literature from its beginnings through the Renaissance. **It is strongly recommended that the student should have completed ENGL 1023 (Composition II) with a “C” or better.**

### **Expected Student Learning Outcomes:**

The student will:

- Read, analyze, and interpret works by representative British writers.
- Identify various literary techniques, methods, and ideas.
- Illustrate how literature reflects culture and society.
- Write at least one interpretive paper.

## ENGL 2683 British Literature II

### **General Description:**

Selected works of British literature from the Renaissance to present. **It is strongly recommended that the student should have completed ENGL 1023 (Composition II) with a “C” or better.**

### **Expected Student Learning Outcomes:**

The student will:

- Read, analyze, and interpret works by representative British writers.
- Identify various literary techniques, methods, and ideas.
- Illustrate how literature reflects culture and society.
- Write at least one interpretive paper.

## ENGL 2713 Introduction to Literature

### **General Description:**

Read and discuss works of literature in English from various cultural contexts. Includes study of genres, forms, techniques, and significance.

### **Expected Student Learning Outcomes:**

- Students will be able to apply close reading skills to different genres of literature (e.g. fiction, poetry, drama, creative nonfiction, and/or visual texts) and communicate their comprehension.
- Students will have the ability to formulate ideas and to discuss, test, and support those ideas in writing with evidence from the texts.
- Students will be able to connect the ideas explored in the works to our common experience and to the works' historical and social contexts.
- Students will recognize ways that literature engages different perspectives (e.g. cultural, ethnic, religious, sex or gender based).
- Students will be able to recognize rhetorical and linguistic nuances.

## FREN 1013 French I

### **General Description:**

French I is a beginning course designed to help students develop a basic proficiency in the four skills of listening, speaking, reading, and writing. The instruction is communicatively oriented and emphasizes the everyday life and culture of French-speaking people.

### **Expected Student Learning Outcomes:**

- **Listening:** Understand short learned and some sentence-length utterances, particularly where context strongly supports understanding and speech is clearly audible.
- **Speaking:** Respond to simple questions and statements involving learned materials.
- **Reading:** Understand familiar written language as used in practical daily life

- involving learned vocabulary.
- **Writing:** Write simple, fixed expressions, limited memorized material and some recombinations.
- **Culture:** Demonstrate elementary knowledge of important aspects of contemporary French culture.

## FREN 1023 French II

### **General Description:**

FREN 1023 is a continuation of FREN 1013. It seeks to further develop a basic proficiency in the four skills of listening, speaking, reading, and writing. The instruction is communicatively oriented and emphasizes the everyday life and culture of French-speaking people. **It is strongly recommended that the student should have completed FREN 1013 with a “C” or better.**

### **Expected Student Learning Outcomes:**

This course is a continuation of French I. Students will show an increased proficiency in listening, speaking, reading, writing, and cultural understanding.

- **Listening:** Understand short learned and some sentence-length utterances, particularly where context strongly supports understanding and speech is clearly audible.
- **Speaking:** Respond to simple questions and statements involving learned materials.
- **Reading:** Understand familiar written language as used in practical daily life involving learned vocabulary.
- **Writing:** Write simple, fixed expressions, limited memorized material and some recombinations.
- **Culture:** Demonstrate elementary knowledge of important aspects of contemporary French culture.

## FREN 2013 French III

### **General Description:**

FREN 2013 is designed to help the student develop an intermediate-level proficiency in the four skills of listening, speaking, reading, and writing. The instruction is communicatively oriented and emphasizes the everyday life and culture of French-speaking people. **It is strongly recommended that the student should have completed FREN 1023 with a “C” or better.**

### **Expected Student Learning Outcomes:**

- **Listening:** Sustained understanding over longer stretches of connected discourse on a number of topics pertaining to different times and places.
- **Speaking:** Participate successfully in uncomplicated communicative tasks and social situations. Initiate, sustain, and close a general conversation with a number of strategies appropriate to a range of circumstances and topics.
- **Reading:** Read consistently with full understanding simple connected texts dealing with basic personal and social needs about which the reader has personal interest and/or knowledge.

- **Writing:** Meet most practical writing needs and limited social demands. Can take notes in some detail on familiar topics and respond in writing to personal questions. Can write simple letters, brief synopses and paraphrases, summaries of biographical data, work and school experience.
- **Culture:** Demonstrate increased knowledge and awareness of and sensitivity to important aspects of contemporary French culture.

## FREN 2023 French IV

### **General Description:**

FREN 2023 is a continuation of FREN 2013. It seeks to further develop an intermediate-level proficiency in the four skills of listening, speaking, reading, and writing. The instruction is communicatively oriented and emphasizes the everyday life and culture of French-speaking people. **It is strongly recommended that the student should have completed FREN 2013 with a “C” or better.**

### **Expected Student Learning Outcomes:**

This course is a continuation of FREN III. Students will show an increased proficiency in listening, speaking, reading, writing, and cultural understanding.

- **Listening:** Sustained understanding over longer stretches of connected discourse on a number of topics pertaining to different times and places.
- **Speaking:** Participate successfully in uncomplicated communicative tasks and social situations. Initiate, sustain, and close a general conversation with a number of strategies appropriate to a range of circumstances and topics.
- **Reading:** Read consistently with full understanding simple connected texts dealing with basic personal and social needs about which the reader has personal interest and/or knowledge.
- **Writing:** Meet most practical writing needs and limited social demands. Can take notes in some detail on familiar topics and respond in writing to personal questions. Can write simple letters, brief synopses and paraphrases, summaries of biographical data, work and school experience.
- **Culture:** Demonstrate increased knowledge and awareness of and sensitivity to important aspects of contemporary French culture.

## GEOG 1103 Introduction to Geography

### **General Description:**

A course that explores present world populations and cultures in relation to their physical environment.

### **Expected Student Learning Outcomes:**

The student will:

- Develop skills in acquiring, communicating, and applying geographical knowledge.
- Identify and acquire knowledge of physical and human landscapes.
- Develop an understanding of the social, political, cultural, and natural forces that shape our world.

## GEOG 1113 Human Geography

### **General Description:**

Explores the relationship between natural factors of the environment and human activities.

### **Expected Student Learning Outcomes:**

The student will:

- Develop skills in acquiring, communicating, and applying cultural knowledge.
- Identify and acquire knowledge of resources and their uses.
- Develop an understanding of the social, political, cultural, and economic forces that shape our world.
- Analyze and understand cultural patterns and development.
- Understand the different types of human activities and conflicts.

## GEOG 2103 World Geography

### **General Description:**

Survey of physical, cultural, and economic characteristics of world regions.

### **Expected Student Learning Outcomes:**

The student will:

- Develop skills in acquiring, communicating, and applying geographical knowledge.
- Identify and acquire knowledge of physical, cultural, and economic characteristics of world regions.
- Develop an understanding of the social, political, cultural, and natural forces that shape our world.
- Analyze and understand different cultural patterns and development.

## GEOG 2113 Cultural Geography

### **General Description:**

Examination of various cultures, dynamics of resource utilization, and patterns of economic development.

### **Expected Student Learning Outcomes:**

The student will:

- Develop skills in acquiring, communicating, and applying cultural knowledge.
- Identify and acquire knowledge of resources and their uses.
- Develop an understanding of the social, political, cultural, and economic forces that shape our world.
- Analyze and understand cultural patterns and development.

## GEOG 2223 Physical Geography

### **General Description:**

Examines the nature and character of various components of the physical environment, including weather elements, climate, landforms, soil, and natural vegetation.

### **Expected Student Learning Outcomes:**

The student will:

- Develop skills in acquiring, communicating, and applying knowledge of physical geography.
- Become familiar with basic geological and meteorological concepts and how they impact human activity.

## GEOL 1114 Physical Geology

### **General Description:**

The study of the earth and the modification of its surface by internal and external processes. Includes examination of the Earth's interior, magnetism, minerals, rocks, landforms, structure, plate tectonics, geological processes, and resources. Lab required.

### **Expected Student Learning Outcomes:**

The student will be able to explain, describe, discuss, recognize, and/or apply knowledge and understanding of the following topics:

- Basic chemistry of mineral compounds
- Composition, formation, and characteristics of igneous, sedimentary, and metamorphic rocks
- Earthquakes
- Seismology
- Soil formation
- Geologic structures
- Continental drift, sea floor spreading, and plate tectonics
- Effects of surface water, wind, and ground water
- Geologic time and dating
- Interior of the earth
- Ocean basins and their margins
- Resources
- Scientific method/inquiry

## GEOL 1124 Environmental Geology

### **General Description:**

The study of the earth as a habitat. Interrelationships between humans and the environment. Geologic factors in urban, rural, and regional land use. Lab required.

### **Expected Student Learning Outcomes:**

The student will be able to explain, describe, discuss, recognize, and/or apply knowledge and understanding of the following topics:

- Earth systems and cycles



- Effects of population growth on the environment
- Earthquakes, volcanoes, hurricanes, and waves
- Soil erosion
- Atmosphere, weather, climate and their interaction
- Plate tectonics
- Mass movement
- Water and air pollution
- Streams, flooding, and wetlands
- Ozone balance and greenhouse effect
- Resources and environmental laws
- Waste management
- Scientific method/inquiry

### GEOL 1134 Historical Geology

#### **General Description:**

Geological history of the earth including methods of reconstruction of past environments. The evolution of life recorded by the rock record. Lab required.

#### **Expected Student Learning Outcomes:**

The student will be able to explain, describe, discuss, recognize, and/or apply knowledge and understanding of the following topics:

- Theories of the origin of the earth
- Evolutionary change of the earth
- Fossil record and evolution of life
- Sedimentary Rocks
- Stratigraphy
- Orogenies
- Plate tectonics
- Geologic time
- Darwin's theory of natural selection

### GERM 1013 German I

#### **General Description:**

German I is a beginning course designed to help students develop a basic proficiency in the four skills of listening, speaking, reading, and writing. The instruction is communicatively oriented and emphasizes the everyday life and culture of German-speaking people.

#### **Expected Student Learning Outcomes:**

- **Listening:** Understand short learned and some sentence-length utterances, particularly where context strongly supports understanding and speech is clearly audible.
- **Speaking:** Respond to simple questions and statements involving learned materials.
- **Reading:** Understand familiar written language as used in practical daily life

- involving learned vocabulary.
- **Writing:** Write simple, fixed expressions, limited memorized material and some recombinations.
- **Culture:** Demonstrate elementary knowledge of important aspects of contemporary German culture.

## GERM 1023 German II

### **General Description:**

GERM 1023 is a continuation of GERM 1013. It seeks to further develop a basic proficiency in the four skills of listening, speaking, reading, and writing. The instruction is communicatively oriented and emphasizes the everyday life and culture of German-speaking people. **It is strongly recommended that the student should have completed GERM 1013 with a “C” or better.**

### **Expected Student Learning Outcomes:**

This course is a continuation of GERM I. Students will show an increased proficiency in listening, speaking, reading, writing, and cultural understanding.

- **Listening:** Understand short learned and some sentence-length utterances, particularly where context strongly supports understanding and speech is clearly audible.
- **Speaking:** Respond to simple questions and statements involving learned materials.
- **Reading:** Understand familiar written language as used in practical daily life involving learned vocabulary.
- **Writing:** Write simple, fixed expressions, limited memorized material and some recombinations.
- **Culture:** Demonstrate elementary knowledge of important aspects of contemporary German culture.

## GERM 2013 German III

### **General Description:**

GERM 2013 is designed to help the student develop an intermediate-level proficiency in the four skills of listening, speaking, reading, and writing. The instruction is communicatively oriented and emphasizes the everyday life and culture of German-speaking people. **It is strongly recommended that the student should have completed GERM 1023 with a “C” or better.**

### **Expected Student Learning Outcomes:**

- **Listening:** Sustained understanding over longer stretches of connected discourse on a number of topics pertaining to different times and places.
- **Speaking:** Participate successfully in uncomplicated communicative tasks and social situations. Initiate, sustain, and close a general conversation with a number of strategies appropriate to a range of circumstances and topics.
- **Reading:** Read consistently with full understanding simple connected texts dealing with basic personal and social needs about which the reader has personal interest and/or knowledge.

- **Writing:** Meet most practical writing needs and limited social demands. Can take notes in some detail on familiar topics and respond in writing to personal questions. Can write simple letters, brief synopses and paraphrases, summaries of biographical data, work and school experience.
- **Culture:** Demonstrate increased knowledge and awareness of and sensitivity to important aspects of contemporary German culture.

## GERM 2023 German IV

### **General Description:**

GERM 2023 is a continuation of GERM 2013. It seeks to further develop an intermediate-level proficiency in the four skills of listening, speaking, reading, and writing. The instruction is communicatively oriented and emphasizes the everyday life and culture of German-speaking people. **It is strongly recommended that the student should have completed GERM 2013 with a “C” or better.**

### **Expected Student Learning Outcomes:**

This course is a continuation of GERM III. Students will show an increased proficiency in listening, speaking, reading, writing, and cultural understanding.

- **Listening:** Sustained understanding over longer stretches of connected discourse on a number of topics pertaining to different times and places.
- **Speaking:** Participate successfully in uncomplicated communicative tasks and social situations. Initiate, sustain, and close a general conversation with a number of strategies appropriate to a range of circumstances and topics.
- **Reading:** Read consistently with full understanding simple connected texts dealing with basic personal and social needs about which the reader has personal interest and/or knowledge.
- **Writing:** Meet most practical writing needs and limited social demands. Can take notes in some detail on familiar topics and respond in writing to personal questions. Can write simple letters, brief synopses and paraphrases, summaries of biographical data, work and school experience.
- **Culture:** Demonstrate increased knowledge and awareness of and sensitivity to important aspects of contemporary German culture.

## HEAL 1003 Personal Health

### **General Description:**

A study designed to assist students in understanding and developing attitudes and behaviors necessary to establish healthful living practices.

### **Expected Student Learning Outcomes:**

The student will:

- Identify positive and negative factors that impact physical, social, mental, and emotional health and well-being.
- Demonstrate basic understanding of critical health issues and behavior affecting personal health.
- Discuss strategies for establishing and maintaining healthful living practices, including exercise.

- Identify the causes of stress and the steps to successfully manage stress.
- Recognize and discuss the processes and effects of addictive behavior, substance abuse, and substance dependence.
- Demonstrate knowledge of essential nutrients, their food sources, and why they are important to the body.

### HIST 1113 World Civilizations I

**General Description:**

Study of world civilizations to the early modern period.

**Expected Student Learning Outcomes:**

The student will develop and utilize critical thinking and communication skills in order to gain a global and historical perspective.

### HIST 1123 World Civilizations II

**General Description:**

Study of world civilizations since the early modern period.

**Expected Student Learning Outcomes:**

The student will develop and utilize critical thinking and communication skills in order to gain a global and historical perspective.

### HIST 1213 Western Civilization I

**General Description:**

Survey of Western civilization to the early modern period.

**Expected Student Learning Outcomes:**

The student will develop and utilize critical thinking and communication skills in order to gain a global and historical perspective.

### HIST 1223 Western Civilization II

**General Description:**

Survey of Western civilization since the early modern period.

**Expected Student Learning Outcomes:**

The student will develop and utilize critical thinking and communication skills in order to gain a global and historical perspective.

## HIST 2113 United States History I

**General Description:**

Survey of United States history through the Civil War era.

**Expected Student Learning Outcomes:**

The student will develop and utilize critical thinking and communication skills in order to gain historical perspective.

## HIST 2123 United States History II

**General Description:**

Survey of United States history since the Civil War era.

**Expected Student Learning Outcomes:**

The student will develop and utilize critical thinking and communication skills in order to gain historical perspective.

## MATH 1003 College Math

*This course might not satisfy the general education requirement for mathematics for some programs. Students are encouraged to check with the program requirements prior to enrolling in this course.*

**General Description:**

The course is designed for students to gain appreciation for mathematics and its interface with everyday activities. Intended for students who will not continue in higher-level mathematics courses.

**It is strongly recommended that the student should have completed Intermediate Algebra, or the equivalent, with a “C” or better.**

**Expected Student Learning Outcomes:**

The student will:

- Develop a basic understanding and appreciation for mathematics.
- Develop the ability to think and reason critically, quantitatively, and logically.
- Be able to analyze arguments.

## MATH 1103 College Algebra

**General Description:**

Study of functions including, but not limited to, absolute value, quadratic, polynomial, rational, logarithmic, and exponential; systems of equations; and matrices. **It is strongly recommended that the student should have completed Intermediate Algebra, or the equivalent, with a “C” or better.**

### **Expected Student Learning Outcomes:**

The student will demonstrate:

- The ability to perform and solve basic function operations and algebraic problems using appropriate vocabulary.
- Critical thinking to formulate decisions and problem solving based on reasoning and analysis.
  - The appropriate use of technology to supplement and enhance conceptual understanding, visualization, and inquiry.
  - The ability to synthesize information from a variety of sources to solve problems and interpret results.

The student will demonstrate a basic understanding of functions including:

- Absolute values
- Quadratic
- Polynomial
- Rational
- Logarithmic
- Exponential
- Graphing of inequalities and quadratic inequalities

The student will demonstrate an understanding of the application of the following topics:

- Systems of equations
- Matrices

## **MATH 1113 Quantitative Literacy/Mathematical Reasoning**

### **General Description:**

Comprehensive mathematics course designed for general education core and for degrees not requiring college algebra. A strong emphasis should be placed on critical thinking, mathematical modeling, and technology. Projects, group work, reading, and writing should be included.

### **Expected Student Learning Outcomes**

The overarching goal of Quantitative Literacy is to provide students with mathematical understandings and skills to be productive workers, discerning consumers, and informed citizens. Students will solve problems using mathematical reasoning involving logic, proportions, algebra, and relations. More specifically, student performances will include:

- Identifying problem-solving strategies and applying them to contemporary everyday problems, both in work and in personal lives.
- Analyzing reports from media to determine completeness and accuracy, noting assumptions both stated and unstated.
- Critiquing public consumer and political information for better understanding, completeness, and accuracy.

Quantitative Literacy/Mathematical Reasoning **must include the required four areas of study listed below**. Because of the nature of the course, some campuses may find it necessary for QL/MR to meet not only the non-STEM general education requirement but

to add additional content to meet documented mathematical needs of students in subsequent courses in a non-STEM or STEM degree program.

The required defined strands include:

1. Finance
2. Statistics and probability
3. Mathematical modeling
4. Quantities and measurement

In keeping with the tenets of student performance in a general education course, Quantitative Literacy is designed to deliver instruction that focuses on process, conceptual understanding, communication, and problem solving. Content will be delivered following the instructional principles below.

### **Instructional Practices for the Course**

1. Content and its presentation will be based in the context of everyday life and selected for its usefulness to the students and their current and future needs for mathematical skills.
2. Assignments should include interpreting written materials containing quantitative information and communicating results in writing.
3. Basic mathematical processes should be integrated into student work so that essential understandings and skills are developed or reinforced throughout the course.
4. Problem solving strategies should be stressed and students should engage in mathematical thinking to develop solutions to non-routine problems, sometimes struggling productively to encourage perseverance.
5. Students should utilize appropriate technology.
6. Projects, group work, and college-level reading and writing should be included.

### **Suggested Course Content**

The following strand descriptions are offered as a guide for instruction and priorities for selecting class activities and projects. This is not intended to be or to become the content of a course syllabus without review and adoption at the campus level.

#### **Finance**

- Explore essentials of creating a family/personal budget
- Understand the difference between simple and compound interest and their effects on savings and expenditures.
- Explore savings and investment accounts.
- Explore loan payments, credit card accounts, and mortgages.
- Understand concepts and practices utilized in describing state and national revenues, expenditures, and deficits.

#### **Statistics and Probability**

- Understand statistics as a process for making inferences about population parameters based on a random sample from that population.

- Recognize the purposes of and differences among sample surveys, experiments, and observational studies; explain how randomization relates to each.
- Evaluate reports or print media articles based on statistical data.
- Describe events as subsets of a sample space using characteristics of the outcomes, or as unions, intersections, or complements of other events.
- Represent data graphically.
- Use statistics appropriate to the shape of data distributions to compare center (mean, median, and mode) and spread (interquartile range, standard deviation, outliers).
- When appropriate, use the mean and standard deviation of a data set to fit it to a normal distribution and to estimate population percentages.
- Represent bivariate quantitative data on a scatter plot and describe how the variables are related.
- Compute (using technology) and interpret correlation of bivariate data and distinguish between correlation and causation and between conspiracy and coincidence.
- Understand and determine probabilities of independent and dependent events.
- Understand and determine conditional probabilities.
- Use permutations and combinations to compute probabilities of compound events and solve problems.
- Find the expected value.
- Analyze risk in situations and understand the difference between absolute changes in risk and relative changes in risk.

### **Mathematical Modeling**

- Use function notation, understand functions as processes, and interpret statements that use function notation in terms of a context.
- Construct graphs and tables that model changing quantities and interpret key features in terms of the quantities.
- Interpret the slope and the intercept of a linear model in the context of the data.
- Graph linear and exponential functions.
- Use linear and exponential functions to model contextual situations.

### **Quantities and Measurement**

- Understand unit analysis and perform unit conversions.
- Study multiple ways of comparing quantities including the use of indices.
- Investigate ways of finding exact and approximate areas and volumes of geometric and irregular shapes.

## **MATH 1203 Plane Trigonometry**

### **General Description:**

Study of trigonometric functions, identities, equations, and applications. **It is strongly recommended that the student should have completed Intermediate Algebra, or the equivalent, with a “C” or better.**

### **Expected Student Learning Outcomes:**

The student will:



- Develop an understanding of trigonometric functions.
- Use trigonometric relations in solving problems including circular motion.
- Develop an understanding of complex numbers and their trigonometric representation.
- Use appropriate technology.
- Demonstrate an understanding of trigonometric identities, equations, and applications.

## MATH 1305 Pre-Calculus

*Most institutions will not give transfer credit for Pre-Calculus if credit was previously awarded for taking College Algebra and Trigonometry.*

### **General Description:**

Integrated, unified course of algebra and trigonometry, with strong emphasis on graphing and functions. This course is designed for students who will take MATH 2405 Calculus I. **It is strongly recommended that the student should have a minimum of 21 on the mathematics section of the ACT.**

### **Expected Student Learning Outcomes:**

Upon successful completion of this course, the student will be prepared for the study of calculus.

The student will demonstrate knowledge of topics included in MATH 1103 College Algebra and MATH 1203 Plane Trigonometry:

- Algebraic functions
- Systems of equations
- Matrices
- Trigonometric functions
- Trigonometric identities
- Trigonometric equations
- Trigonometric applications

## MATH 2103 Introduction to Statistics or Principles of Statistics

### **General Description:**

Algebra-based course utilizing statistical software covering probability, sampling, the presentation and interpretation of data, basic inference, analysis of variance, correlation and regression. **It is recommended that the student should have completed Quantitative literacy/Mathematical Reasoning (MATH1113) or College Algebra (MATH 1103) or the equivalent, with a “C” or better.**

### **Expected Student Learning Outcomes:**

The student will demonstrate a basic understanding of the application of the following topics:

- Discuss key terminology used with probability and statistics (e.g., population, sample, simple random sampling, random variable, parameter, statistic, etc.).
- Calculate and explain probabilities related to complements of events, compound

events, and conditional events, utilizing appropriate counting/combinatorial methods as necessary.

- Using statistical software, choose, create, and be able to explain tables and/or graphs that represent data in a meaningful way.
- Calculate and explain measures of center, measures of variation, and measures of relative standing using a given a data set or distribution.
- Discuss the concept and important properties of sampling distributions. This includes discussing the Central Limit Theorem and its applications
- Explain the connections between the P-value method, the traditional method, and the confidence interval method of hypothesis testing.
- Use statistical software to construct confidence intervals and/or to perform an appropriate hypothesis test for claims about population parameters and interpret results within a specific research scenario including:
  - One sample proportion test
  - Two sample proportion test
  - One sample t-test
  - Two sample independent t-test
  - Two sample dependent/paired t-test
  - One-way ANOVA
  - Two-way ANOVA
  - Simple Linear Regression/Correlation
- Use statistical software to assess normality of a given data set using QQ-plots and histograms.
  - All normality requirements of previously discussed inferential procedures can now be assessed
- Use statistical software to identify the best multiple linear regression equation and interpret results within a specific research scenario, while also determining whether the linear regression equation is suitable for making predictions.

## MATH 2203 Survey of Calculus

### **General Description:**

Polynomial calculus course that includes exponential growth and decay with focus on applications. Not intended to satisfy the major requirements for BS/BA in mathematics. It is strongly recommended that the student should have completed College Algebra (MATH 1103), or the equivalent, with a "C" or better.

### **Expected Student Learning Outcomes:**

The student will demonstrate a basic understanding of application for the following calculus related topics:

- Limits
- Continuity
- Differentiation
- Antiderivatives
- Definite and indefinite integration
- Exponential and logarithmic functions
- Rate of change
- Slope of a function

Applications include:

- Graphing functions using derivatives
- Optimization
- Applied problems in the management of science and economics

## MATH 2405 Calculus I

*May be 4- or 5-hour course*

### **General Description:**

First course in calculus, including topics of functions (including exponential, trigonometric, and logarithmic), limits, continuity, differentiation, antiderivatives, inverse functions, and introduction to integration. It is strongly recommended that the student should have completed College Algebra (MATH 1103) and Plane Trigonometry (MATH 1203), or the equivalent, with a “C” or better.

### **Expected Student Learning Outcomes:**

The student will understand and be able to apply the concepts involved with limits, derivatives, and integrals. Topics required are:

- Functions, including sketching, slopes, minimum, maximum, relative extrema, inflection points, asymptotes, and other analysis
- Limits
- Continuity
- Differentiation
- Implicit differentiation
- Exponential, trigonometric, and logarithmic functions
- Exponential growth and decay
- Course includes application of above topics, such as:
  - Slope and rates of change
  - Maximum and minimum values and optimum solutions to problems
- Antiderivatives
- Definite and indefinite integration, including the Fundamental Theorem of Calculus
- Area between curves

The student will understand and apply the following integration techniques (Calculus I or Calculus II):

- Integration by parts
- Trigonometric and substitutions
- Integration of rational functions using partial functions

## MATH 2505 Calculus II

*May be 4- or 5-hour course*

### **General Description:**

Continuation of MATH 2405. Includes integration and applications, integration by parts, sequences and series, parametric equations, polar coordinates, conic sections. **It is strongly recommended that the student should have completed Calculus I (MATH 2405) with a “C” or better.**

**Expected Student Learning Outcomes:**

The student will understand and apply the following integration techniques (Calculus I or Calculus II):

- Integration by parts
- Trigonometric and substitutions
- Integration of rational functions using partial functions
- The student will be able to perform applications of integration.
- The student will understand and apply improper integrals.
- The student will understand and apply sequence and infinite series including:
  - Convergence test
  - Taylor Series
  - Radius of Convergence
- The student will understand and apply the following (Calculus II or Calculus III):
  - Vectors
  - Calculus of vector-valued functions

### MATH 2603 Calculus III

**General Description:**

Continuation of MATH 2505. The study of multi-dimensional calculus, including multiple integration, partial differentiation, vector functions, and other topics. **It is strongly recommended that the student should have completed Calculus II (MATH 2505) with a “C” or better.**

**Expected Student Learning Outcomes:**

The student will understand and apply the following:

- Two-dimensional and three-dimensional vector-valued functions
- Functions of several variables
- Partial derivatives
- Multiple integration
- Line and surface integrals

The student will understand and apply the following (Calculus II or Calculus III):

- Vectors
- Calculus of vector-valued functions

### MUSC 1003 Music Appreciation

**General Description:**

Introductory survey of music including the study of elements and forms of music, selected musical works, music terminology, important musical genres, periods, and composers, and an introduction to major musical instruments.

**Expected Student Learning Outcomes:**

The successful student will be able to:

- Identify and analyze the elements and forms of music.
- Identify selected works of various composers.
- Identify and explain music terminology.
- Identify various genres, periods, and major composers.

- Analyze the role of music and musicians within historical contexts.
- Attend a live performance and write a critique of the experience using terminology appropriate to the course.
- Differentiate various instruments aurally and visually.

### PHIL1003 Introduction to Critical Thinking

#### **General Description:**

The study of applied reasoning including:

- Analysis of arguments
- Informal and formal fallacies
- Syllogisms
- Construction of definitions
- Scientific reasoning

#### **Expected Student Learning Outcomes:**

The student will:

- Make decisions using verifiable information.
- Critically examine information.
- Demonstrate problem-solving skills.
- Evaluate one's own reasoning and the reasoning of others.

### PHIL 1103 Philosophy

#### **General Description:**

A philosophical exploration of topics that must include:

- Human values
- Critical thinking
- Nature of reality and knowledge

#### **Expected Student Learning Outcomes:**

The student will:

- Develop appreciation of various points of views.
- Demonstrate critical inquiry.
- Demonstrate a familiarity with the crucial concepts involved in the above topics.

### PHSC 1004 Physical Science

#### **General Description:**

General survey course of the physical sciences designed for general education. The course includes topics in physics and chemistry and may also include other physical science topics. Lab required. **This is an algebra-based course, and it is strongly recommended that the student should have completed Elementary Algebra with a "C" or better.**

#### **Expected Student Learning Outcomes:**

The student will explain, describe, discuss, recognize, and/or apply knowledge and

understanding of the following:

- Scientific method
- Measurement and error
- Force and motion
- Work and energy
- Temperature and heat
- Electricity and magnetism
- Chemical elements
- Chemical bonding
- Chemical reactions and mole concept

May include other topics in physical science, including but not limited to:

- Astronomy
- Waves
- Earth science
- Light and optics
- Atomic and nuclear physics

### PHSC 1104 Earth Science

#### **General Description:**

Introduction to the basic concepts of Earth sciences. Lab required.

#### **Expected Student Learning Outcomes:**

The student will be able to explain, describe, discuss, recognize, and/or apply knowledge and understanding of the following topics:

- Earth structure and processes
- Earthquakes, volcanism, glacial formations, plate tectonics, weathering, and erosion
- Atmosphere, climate, and weather
- Oceans
- Rocks, minerals, and fossils
- History of the Earth
- Scientific method/inquiry

### PHSC 1204 Introduction to Astronomy

#### **General Description:**

Basic study of the solar system, stars, galaxies, and the rest of the universe. Lab required.

**This is an algebra-based course, and it is strongly recommended that the student should have completed Elementary Algebra with a “C” or better.**

#### **Expected Student Learning Outcomes:**

The student will explain, describe, discuss, recognize, and/or apply knowledge and understanding of the following:

- History of astronomy
- Light and optics

- The solar system
- Celestial motions
- Kepler's Laws
- Newton's Laws
- Stellar properties
- Stellar evolution
- Star clusters, galaxies, cosmology

## PHYS 2014 Algebra/Trigonometry-Based Physics I

### **General Description:**

Algebra and trigonometry-based physics course. Not recommended for physics and engineering majors. Topics include mechanics in one and two dimensions, fluids, thermodynamics, and mechanical waves and sound. Lab required. **This is an algebra and trigonometry-based physics course, and it is strongly recommended that the student should have completed College Algebra with a "C" or better.**

### **Expected Student Learning Outcomes:**

The student will use algebra and trigonometry in order to be able to explain, describe, discuss, recognize, and/or apply knowledge and understanding of the following:

- Scientific method
- Measurement and error
- Vectors
- Newton's Laws of Motion
- Work and energy
- Linear momentum
- Rotational kinematics and dynamics
- Fluids
- Thermodynamics
- Mechanical waves and sound

## PHYS 2024 Algebra/Trigonometry-Based Physics II

### **General Description:**

Continuation of Algebra/Trigonometry-Based Physics I (Physics 2014). Topics include electricity and magnetism, light and optics, and modern physics. Lab required. **This is an algebra and trigonometry-based physics course, and it is strongly recommended that the student should have completed both College Algebra and Algebra/Trigonometry-Based Physics I with a "C" or better.**

### **Expected Student Learning Outcomes:**

The student will use algebra and trigonometry in order to be able to explain, describe, discuss, recognize, and/or apply knowledge and understanding of the following:

- Electrostatics
- Electric fields, potential, and energy
- Current and resistance
- DC circuits

- Magnetism
- Induction
- Electromagnetic waves
- Selected topics in modern physics
- Physical optics
- Light
- Geometric optics

## PHYS 2034 Calculus-Based Physics I

### **General Description:**

Calculus-based physics course designed for science and engineering majors. Topics include mechanics in one and two dimensions, fluids, and heat. Lab required. **This is a calculus-based course, and it is strongly recommended that the student should take Calculus I as a corequisite or have completed Calculus I with a “C” or better.**

### **Expected Student Learning Outcomes:**

The student will use calculus in order to be able to explain, describe, discuss, recognize, and/or apply knowledge and understanding of the following:

- Measurement and error
- One- and two-dimensional motion
- Vectors
- Newton’s Laws of Motion
- Work and energy
- Conservation laws
- Linear momentum
- Rotational kinematics and dynamics
- Fluids
- Heat

## PHYS 2044 Calculus-Based Physics II

### **General Description:**

Continuation of Calculus-Based Physics I (PHYS 2034). Topics include electricity & magnetism and optics. Lab required. **This is a calculus-based course, and it is strongly recommended that the student should have completed both Calculus I and Calculus-Based Physics I with a “C” or better and should take Calculus II as a co-requisite.**

### **Expected Student Learning Outcomes:**

The student will use calculus in order to be able to explain, describe, discuss, recognize, and/or apply knowledge and understanding of the following:

- Electric force and fields
- Gauss’s Law
- Electric potential
- Capacitance and energy
- Current and resistance
- Circuits



- Magnetic force, fields, and flux
- Induction and inductance
- Maxwell's Equations and electromagnetic waves
- Optics

### PLSC 2003 American National Government

**General Description:**

The introduction to the principles, structure, processes and functions of the United States federal government and other related political activities.

**Expected Student Learning Outcomes:**

The student will be able to explain, discuss, recognize, and/or apply knowledge of the following topics:

- Three branches of the American government (Executive, Judicial, Legislative)
- Constitution
- Political Parties and interest groups
- Campaigns and elections
- Civil liberties and civil rights
- Federalism
- Public opinion

### PLSC 2103 State and Local Government

**General Description:**

An introduction to the organization, structure, functions, and administration of state and local governments.

**Expected Student Learning Outcomes:**

The student will be able to explain, discuss, recognize, and/or apply knowledge of the following topics:

- State and local governmental structures
- Constitution
- Fiscal policies
- Political parties and interest groups
- Campaigns and elections
- Federalism

### PSYC 1103 General Psychology

**General Description:**

This course is an overview of major topics in modern psychology, the scientific study of behavior and mental processes. As a first course in the discipline of psychology, it introduces some of the fundamental concepts, principles, and theories with a consideration for the complexity of human behavior.

**Expected Student Learning Outcomes:**

The student will:

- Distinguish among major schools of thought and their historical backgrounds.
- Demonstrate an understanding of basic research methods in psychology.
- The student will be able to explain, describe, discuss, recognize, and/or apply knowledge and understanding of the following:
- Historical and contemporary perspectives in psychology.
- Recognition of the cognitive, biological, and social/cultural influences of behavior
- Application of psychological knowledge in everyday life and real-world-contexts.

## **PSYC 2103 Developmental Psychology**

### **General Description:**

A survey course covering the processes and domains of human development from conception through the whole lifespan.

### **Expected Student Learning Outcomes:**

The student will be able to explain, describe, discuss, recognize, and/or apply knowledge of a fundamental understanding of psycho-social, biological, cognitive, and emotional aspects of human development in each period of the lifespan:

- Prenatal
- Infancy and toddlerhood
- Early Childhood
- Middle Childhood
- Adolescence
- Early adulthood
- Middle adulthood
- Late adulthood

The student will demonstrate understanding of major aspects and theories of growth and development.

The student will demonstrate knowledge of scientific research in the field of developmental psychology.

## **SOCI 1013 Introduction to Sociology**

### **General Description:**

An introduction to the theories, concepts, and basic principles used in the study of group life, social institutions, and social processes.

### **Expected Student Learning Outcomes:**

The student will demonstrate understanding of the following:

- Sociological perspective
- Sociological theories and methods
- Social institutions
- Culture and society
- Socialization

- Groups and organizations
- Social inequality
- Globalization

### SOCI 2013 Social Problems

#### **General Description:**

The application of sociological principles to the investigation of major social problems currently faced by societies.

#### **Expected Student Learning Outcomes:**

The student will demonstrate understanding of the following:

- Relationship between private problems and public issues
- Personal vs. systemic blame
- Social construction of social problems
- Major theories of social problems
- Myths and facts related to social problems using critical thinking and research

### SPAN 1013 Spanish I

#### **General Description:**

Spanish I is a beginning course designed to help students develop a basic proficiency in the four skills of listening, speaking, reading, and writing. The instruction is communicatively oriented and emphasizes the everyday life and culture of Spanish-speaking people.

#### **Expected Student Learning Outcomes:**

- **Listening:** Understand short learned and some sentence-length utterances, particularly where context strongly supports understanding and speech is clearly audible.
- **Speaking:** Respond to simple questions and statements involving learned materials.
- **Reading:** Understand familiar written language as used in practical daily life involving learned vocabulary.
- **Writing:** Write simple, fixed expressions, limited memorized material and some recombinations.
- **Culture:** Demonstrate elementary knowledge of important aspects of contemporary Spanish-speaking culture.

### SPAN 1023 Spanish II

#### **General Description:**

SPAN 1023 is a continuation of SPAN 1013. It seeks to further develop a basic proficiency in the four skills of listening, speaking, reading, and writing. The instruction is communicatively oriented and emphasizes the everyday life and culture of Spanish-speaking people. **It is strongly recommended that the student should have**

**completed SPAN 1013 with a “C” or better.**

**Expected Student Learning Outcomes:**

This course is a continuation of SPAN I. Students will show an increased proficiency in listening, speaking, reading, writing, and cultural understanding.

- **Listening:** Understand short learned and some sentence-length utterances, particularly where context strongly supports understanding and speech is clearly audible.
- **Speaking:** Respond to simple questions and statements involving learned materials.
- **Reading:** Understand familiar written language as used in practical daily life involving learned vocabulary.
- **Writing:** Write simple, fixed expressions, limited memorized material and some recombinations.
- **Culture:** Demonstrate elementary knowledge of important aspects of contemporary Spanish-speaking culture.

### SPAN 2013 Spanish III

**General Description:**

SPAN 2013 is designed to help the student develop an intermediate-level proficiency in the four skills of listening, speaking, reading, and writing. The instruction is communicatively oriented and emphasizes the everyday life and culture of Spanish-speaking people. **It is strongly recommended that the student should have completed SPAN 1023 with a “C” or better.**

**Expected Student Learning Outcomes:**

- **Listening:** Sustained understanding over longer stretches of connected discourse on a number of topics pertaining to different times and places.
- **Speaking:** Participate successfully in uncomplicated communicative tasks and social situations. Initiate, sustain, and close a general conversation with a number of strategies appropriate to a range of circumstances and topics.
- **Reading:** Read consistently with full understanding simple connected texts dealing with basic personal and social needs about which the reader has personal interest and/or knowledge.
- **Writing:** Meet most practical writing needs and limited social demands. Can take notes in some detail on familiar topics and respond in writing to personal questions. Can write simple letters, brief synopses and paraphrases, summaries of biographical data, work and school experience.
- **Culture:** Demonstrate increased knowledge and awareness of and sensitivity to important aspects of contemporary Spanish-speaking culture.

### SPAN 2023 Spanish IV

**General Description:**

SPAN 2023 is a continuation of SPAN 2013. It seeks to further develop an intermediate-level proficiency in the four skills of listening, speaking, reading, and writing. The

instruction is communicatively oriented and emphasizes the everyday life and culture of Spanish-speaking people. **It is strongly recommended that the student should have completed SPAN 2013 with a “C” or better.**

**Expected Student Learning Outcomes:**

This course is a continuation of SPAN III. Students will show an increased proficiency in listening, speaking, reading, writing, and cultural understanding.

- **Listening:** Sustained understanding over longer stretches of connected discourse on a number of topics pertaining to different times and places.
- **Speaking:** Participate successfully in uncomplicated communicative tasks and social situations. Initiate, sustain, and close a general conversation with a number of strategies appropriate to a range of circumstances and topics.
- **Reading:** Read consistently with full understanding simple connected texts dealing with basic personal and social needs about which the reader has personal interest and/or knowledge.
- **Writing:** Meet most practical writing needs and limited social demands. Can take notes in some detail on familiar topics and respond in writing to personal questions. Can write simple letters, brief synopses and paraphrases, summaries of biographical data, work and school experience.
- **Culture:** Demonstrate increased knowledge and awareness of and sensitivity to important aspects of contemporary Spanish-speaking culture.

### **SPCH 1003 Introduction to Oral Communication**

**General Description:**

Theory and practice of communication in interpersonal, small group, and public speaking emphasizing proficiency in speech organization, delivery, and critical thinking/listening applications.

**Expected Student Learning Outcomes:**

This course is designed to develop confidence in the student’s ability to communicate effectively. Students will demonstrate the following competencies:

- Critical thinking and listening skills
- Research and organizational skills
- Verbal and non-verbal presentation skills
- Knowledge of oral communication theory