

## Degree Description

This is an Associate of Science with a program of study for students transferring to an AgriBusiness program at a 4-year institution.

### Marketable Skills

1. Develop problem solving and critical thinking skills, both written and orally, to evaluate options and implement solutions.
2. Develop qualitative and quantitative skills using logic and reasoning to identify strengths and weaknesses of potential solutions and approaches to agricultural challenges.
3. Work effectively with others to develop teamwork and leadership skills.
4. Adopt time management skills and meet deadlines by completing a variety of tasks.
5. Understand and identify the role agriculture has on society, and how current agricultural practices will impact the future.

<b>Semester I</b>	<b>Hours</b>
<a href="#">EDUC 1100 Learning Framework</a> <sup>1</sup> <i>or</i> <a href="#">EDUC 1300 Learning Framework</a> <sup>1</sup>	1-3 hours
<a href="#">ENGL 1301 Composition I</a>	3 hours
<a href="#">MATH 1314 College Algebra</a> <i>or</i> <a href="#">MATH 1324 Mathematics for Business &amp; Social Sciences</a>	3 hours
<a href="#">AGRI 1309 Computers in Agriculture</a>	3 hours
<a href="#">Biology (college-level)</a> <i>or</i> <a href="#">Chemistry (college-level)</a> <i>or</i> <a href="#">Environmental Science (college-level)</a> <i>or</i> <a href="#">Geology (college-level)</a>	4 hours
	<b>14-16 hours</b>

<b>Semester II</b>	<b>Hours</b>
<a href="#">AGRI 2317 Introduction to Agricultural Economics</a>	3 hours
<a href="#">SPCH 1311 Introduction to Speech Communication</a> <i>or</i> <a href="#">SPCH 1315 Public Speaking</a>	3 hours
<a href="#">MATH 1325 Calculus for Business &amp; Social Sciences</a>	3 hours
<a href="#">ENGL 1302 Composition II</a>	3 hours
<a href="#">Biology (college-level)</a> <i>or</i> <a href="#">Chemistry (college-level)</a> <i>or</i> <a href="#">Environmental Science (college-level)</a> <i>or</i> <a href="#">Geology (college-level)</a>	4 hours
	<b>16 hours</b>

<b>Semester III</b>	<b>Hours</b>
<a href="#">HIST 1301 United States History I</a>	3 hours
<a href="#">GOVT 2305 Federal Government</a>	3 hours
<a href="#">ECON 2301 Principles of Macroeconomics</a>	3 hours
<a href="#">ACCT 2301 Principles/Financial Acct</a>	3 hours
<a href="#">Creative Arts elective</a>	3 hours
	<b>15 hours</b>

<b>Semester IV</b>	<b>Hours</b>
<a href="#">GOVT 2306 Texas Government</a>	3 hours
<a href="#">ACCT 2302 Principles of Managerial Accounting</a>	3 hours
<a href="#">Language, Philosophy, &amp; Culture elective</a>	3 hours
<a href="#">HIST 1302 United States History II</a>	3 hours
<a href="#">AGRI 1307 Agronomy</a> <sup>2,3</sup> <i>or</i> <a href="#">AGRI 1315 Horticulture</a> <sup>2,3</sup>	3 hours
	<b>15 hours</b>

**Total hours: 60-62 hours**

- <sup>1</sup> All first-time-in-college students are required to complete a Learning Framework course. Students who are TSI exempt or must complete one section of developmental education should enroll in EDUC 1100. All other first-time-in-college students should enroll in EDUC 1300. See your advisor for more information.
- <sup>2</sup> AGRI 1307 will be offered in the spring semester of even years, and AGRI 1315 will be offered in the spring semester of odd years.
- <sup>3</sup> A student may also elect to take AGRI 1319 (Introduction to Animal Science) for the Ag science requirement. If the student elects this option, he or she will need to take AGRI 1319 in the third semester and move the Creative Arts elective to the fourth semester. If the student elects to take AGRI 1319 for the Ag science requirement, the student will also need to enroll in AGRI 1119 (Introduction to Animal Science Lab) for the course to transfer to Tarleton. Tarleton requires both lecture and lab for Introduction to Animal Science.

## Electives/General Education Courses

### Biology

<a href="#">BIOL 1322 Nutrition &amp; Diet Therapy</a>	3 hours
<a href="#">BIOL 1406 Biology for Science Majors I</a>	4 hours
<a href="#">BIOL 1407 Biology for Science Majors II</a>	4 hours
<a href="#">BIOL 1408 Biology for Non-Science Majors I</a>	4 hours
<a href="#">BIOL 1409 Biology for Non-Science Majors II</a>	4 hours
<a href="#">BIOL 1411 General Botany</a>	4 hours
<a href="#">BIOL 1413 General Zoology</a>	4 hours
<a href="#">BIOL 2389 Academic Cooperative</a>	3 hours
<a href="#">BIOL 2401 Anatomy &amp; Physiology I</a>	4 hours
<a href="#">BIOL 2402 Anatomy &amp; Physiology II</a>	4 hours
<a href="#">BIOL 2404 Anatomy &amp; Physiology (specialized)</a>	4 hours
<a href="#">BIOL 2420 Microbiology for Non-Science Majors</a>	4 hours

### Chemistry

<a href="#">CHEM 1405 Introductory Chemistry I</a>	4 hours
<a href="#">CHEM 1409 General Chemistry for Engineering Majors</a>	4 hours
<a href="#">CHEM 1411 General Chemistry I</a>	4 hours
<a href="#">CHEM 1412 General Chemistry II</a>	4 hours
<a href="#">CHEM 2389 Academic Cooperative</a>	3 hours
<a href="#">CHEM 2423 Organic Chemistry I</a>	4 hours
<a href="#">CHEM 2425 Organic Chemistry II</a>	4 hours

### Creative Arts

<a href="#">ARTS 1301 Art Appreciation</a>	3 hours
<a href="#">ARTS 1303 Art History I (Prehistoric to the 14th Century)</a>	3 hours
<a href="#">ARTS 1304 Art History II (14th Century to the Present)</a>	3 hours
<a href="#">DRAM 1310 Theater Appreciation</a>	3 hours
<a href="#">DRAM 2361 History of Theater I</a>	3 hours
<a href="#">DRAM 2362 History of Theater II</a>	3 hours
<a href="#">HUMA 1315 Fine Arts Appreciation</a>	3 hours
<a href="#">MUSI 1306 Music Appreciation</a>	3 hours
<a href="#">MUSI 1308 Music Literature I</a>	3 hours
<a href="#">MUSI 1309 Music Literature II</a>	3 hours
<a href="#">MUSI 1310 American Music</a>	3 hours

### Environmental Science

<a href="#">ENVR 1101 Environmental Science I (lab)</a>	1 hours
<a href="#">ENVR 1102 Environmental Science II (lab)</a>	1 hours
<a href="#">ENVR 1301 Environmental Science I (lecture)</a>	3 hours
<a href="#">ENVR 1302 Environmental Science II - Lecture</a>	3 hours
<a href="#">ENVR 1401 Environmental Science I (lecture + lab)</a>	4 hours
<a href="#">ENVR 1402 Environmental Science II</a>	4 hours

### Geology

<a href="#">GEOL 1101 Earth Sciences I for Non-Science Majors (lab)</a>	1 hours
<a href="#">GEOL 1102 Earth Sciences II for Non-Science Majors (lab)</a>	1 hours
<a href="#">GEOL 1103 Physical Geology Laboratory</a>	1 hours
<a href="#">GEOL 1104 Historical Geology Laboratory</a>	1 hours
<a href="#">GEOL 1301 Earth Sciences I for Non-Science Majors (lecture)</a>	3 hours
<a href="#">GEOL 1302 Earth Sciences II for Non-Science Majors (lecture)</a>	3 hours
<a href="#">GEOL 1303 Physical Geology (lecture)</a>	3 hours
<a href="#">GEOL 1304 Historical Geology (lecture)</a>	3 hours
<a href="#">GEOL 1401 Earth Sciences I for Non-Sciences Majors (lecture + lab)</a>	4 hours
<a href="#">GEOL 1402 Earth Sciences II for Non-Science Majors (lecture + lab)</a>	4 hours
<a href="#">GEOL 1403 Physical Geology (lecture + lab)</a>	4 hours
<a href="#">GEOL 1404 Historical Geology (lecture + lab)</a>	4 hours
<a href="#">GEOL 2389 Academic Cooperative</a>	3 hours

## Language, Philosophy, & Culture

<a href="#">ENGL 2321 British Literature</a>	3 hours
<a href="#">ENGL 2322 British Literature I</a>	3 hours
<a href="#">ENGL 2323 British Literature II</a>	3 hours
<a href="#">ENGL 2326 American Literature</a>	3 hours
<a href="#">ENGL 2327 American Literature I: Up to the Civil War</a>	3 hours
<a href="#">ENGL 2328 American Literature II: Civil War to the Present</a>	3 hours
<a href="#">ENGL 2331 World Literature</a>	3 hours
<a href="#">ENGL 2332 World Literature I: Up to the 17th Century</a>	3 hours
<a href="#">ENGL 2333 World Literature II: 17th Century to the Present</a>	3 hours
<a href="#">ENGL 2341 Forms of Literature</a>	3 hours
<a href="#">FREN 2311 Intermediate French I</a>	3 hours
<a href="#">GERM 2311 Intermediate German I</a>	3 hours
<a href="#">HUMA 1301 Introduction to Humanities I</a>	3 hours
<a href="#">HUMA 1302 Introduction to Humanities II</a>	3 hours
<a href="#">PHIL 1301 Introduction to Philosophy</a>	3 hours
<a href="#">PHIL 1304 Introduction to World Religions</a>	3 hours
<a href="#">PHIL 2306 Introduction to Ethics</a>	3 hours
<a href="#">SPAN 2311 Intermediate Spanish I</a>	3 hours
<a href="#">SGNL 2301 Intermediate ASL I</a>	3 hours

## Course Descriptions

### EDUC 1100 Learning Framework

A study of the: 1) research and theory in the psychology of learning, cognition, and motivation; 2) factors that impact learning; and 3) application of learning strategies. Theoretical models of strategic learning, cognition, and motivation serve as the conceptual basis for the introduction of college-level student academic strategies. Students use assessment instruments (e.g., learning inventories) to help them identify their own strengths and weaknesses as strategic learners. Students are ultimately expected to integrate and apply the learning skills discussed across their own academic programs and become effective and efficient learners. Students developing these skills should be able to continually draw from the theoretical models they have learned. (Cross-listed as PSYC 1100.) Semester Hour 1 (1 lec)

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### EDUC 1300 Learning Framework

A study of the: 1) research and theory in the psychology of learning, cognition, and motivation; 2) factors that impact learning; and 3) application of learning strategies. Theoretical models of strategic learning, cognition, and motivation serve as the conceptual basis for the introduction of college-level student academic strategies. Students use assessment instruments (e.g., learning inventories) to help them identify their own strengths and weaknesses as strategic learners. Students are ultimately expected to integrate and apply the learning skills discussed across their own academic programs and become effective and efficient learners. Students developing these skills should be able to continually draw from the theoretical models they have learned. (Cross-listed as PSYC 1300.) Prerequisite: Must have passed the reading portion of the TSI or concurrent enrollment in INRW 0402. Semester Hours 3 (3 lec)

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### ENGL 1301 Composition I

Intensive study of and practice in writing processes, from invention and researching to drafting, revising, and editing, both individually and collaboratively. Emphasis is on effective rhetorical choices, including audience, purpose, arrangement, and style. Focus is on writing the academic essay as a vehicle for learning, communication, and critical analysis. Prerequisite: TSI complete in Writing or the equivalent. Semester Hours 3 (3 lec)

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### MATH 1314 College Algebra

In-depth study and applications of polynomial, rational, radical, exponential and logarithmic functions, and systems of equations using matrices. Additional topics such as sequences, series, probability, and conics may be included. Graphing calculator required. Prerequisite: TSI math complete or MATH 0311. Semester Hours 3 (3 lec)

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### MATH 1324 Mathematics for Business & Social Sciences

The application of common algebraic functions, including polynomial, exponential, logarithmic and rational, to problems in business, economics and the social sciences are addressed. The applications include mathematics of finance, including simple and compound interest and annuities; systems of linear equations; matrices, linear programming; and probability, including expected value. Prerequisite: TSI math complete or MATH 0311. Semester Hours 3 (3 lec)

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### AGRI 1309 Computers in Agriculture

Survey of the use of computers in agricultural applications. Semester Hours 3 (3 lec/1 lab)

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### AGRI 2317 Introduction to Agricultural Economics

Fundamental economic principles and their application to the agricultural industry. Semester Hours 3 (3 lec)

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### SPCH 1311 Introduction to Speech Communication

Introduces basic human communication principles and theories embedded in a variety of contexts, including interpersonal, small group, and public speaking. Semester Hours 3 (3 lec)

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### SPCH 1315 Public Speaking

Application of communication theory and practice to the public speaking context, with emphasis on audience analysis, speaker delivery, ethics of communication, cultural diversity, and speech organizational techniques to develop students' speaking abilities, as well as ability to effectively evaluate oral presentations. Semester Hours 3 (3 lec)

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### MATH 1325 Calculus for Business & Social Sciences

This course is the basic study of limits and continuity, differentiation, optimization and graphing, and integration of elementary functions, with emphasis on applications in business, economics and social sciences. This course is not a substitute for MATH 2313 or 2413 - Calculus I. Prerequisite: MATH 1314 or MATH 1324, minimum grade C. Semester Hours 3 (3 lec)

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### ENGL 1302 Composition II

Intensive study of and practice in the strategies and techniques for developing research-based expository and persuasive texts. Emphasis is on effective and ethical rhetorical inquiry, including primary and secondary research methods; critical reading of verbal, visual and multimedia texts; systematic evaluation, synthesis, and documentation of information sources; and critical thinking about evidence and conclusions. Prerequisite: ENGL 1301 or its equivalent with a grade of C or better or consent of division chair. Semester Hours 3 (3 lec)

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### HIST 1301 United States History I

A survey of the social, political, economic, cultural, and intellectual history of the United States from the pre-Columbian era to the Civil War/Reconstruction period. United States History I includes the study of pre-Columbian, colonial, revolutionary, early national, slavery and sectionalism, and the Civil War/Reconstruction eras. Themes that may be addressed in United States History I include: American settlement and diversity, American culture, religion, civil and human rights, technological change, economic change, immigration and migration, and creation of the federal government. NOTE: Must have passed the reading portion of the TSI Assessment or have credit for INRW 0402. Semester Hours 3 (3 lec)

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### GOVT 2305 Federal Government

Origin and development of the U.S. Constitution; structure and powers of the national government including the legislative, executive, and judicial branches; federalism; political participation; the national election process; public policy; civil liberties; and civil rights. NOTE: Must have passed the reading portion of the TSI Assessment or have credit for INRW 0402. Semester Hours 3 (3 lec)

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### ECON 2301 Principles of Macroeconomics

Analyzes the economy as a whole including measurement and determination of aggregate demand and aggregate supply, national income, inflation, and unemployment. Other topics include international trade, economic growth, business cycles, fiscal policy and monetary policy. Prerequisite: Must have passed the TSI Assessment or be concurrently enrolled in INRW 0402. Semester Hours 3 (3 lec)

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### ACCT 2301 Principles/Financial Acct

This course is an introduction to the fundamental concepts of financial accounting as prescribed by U.S. generally accepted accounting principles (GAAP) as applied to transactions and events that affect business organizations. Students will examine the procedures and systems to accumulate, analyze, measure, and record financial transactions. Students will use recorded financial information to prepare a balance sheet, income statement, statement of cash flows, and statement of shareholders' equity to communicate the business entity's results of operations and financial position to users of financial information who are external to the company. Students will study the nature of assets, liabilities, and owners' equity while learning to use reported financial information for purposes of making decisions about the company. Students will be exposed to International Financial Reporting Standards (IFRS). Prerequisite: ACNT 1303. Semester Hours 3 (3 lec)

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### GOVT 2306 Texas Government

Origin and development of the Texas constitution, structure and powers of state and local government, federalism and inter-governmental relations, political participation, the election process, public policy, and the political culture of Texas. NOTE: Must have passed the reading portion of the TSI Assessment or have credit for INRW 0402. Semester Hours 3 (3 lec)

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## **ACCT 2302 Principles of Managerial Accounting**

Introduces the fundamental concepts of managerial accounting appropriate for all organizations. Students will study information from the entity's accounting system relevant to decisions made by internal managers, as distinguished from information relevant to users who are external to the company. The emphasis is on the identification and assignment of product costs, operational budgeting and planning, cost control, and management decision making. Topics include produce costing methodologies, cost behavior, operational and capital budgeting, and performance evaluation. Prerequisite: ACCT 2301. Semester Hours 3 (3 lec)

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## **HIST 1302 United States History II**

A survey of the social, political, economic, cultural, and intellectual history of the United States from the Civil War/Reconstruction era to the present. United States History II examines industrialization, immigration, world wars, the Great Depression, Cold War and post-Cold War eras. Themes that may be addressed in United States History II include: American culture, religion, civil and human rights, technological change, economic change, immigration and migration, urbanization and suburbanization, the expansion of the federal government, and the study of U.S. foreign policy. NOTE: Must have passed the reading portion of the TSI Assessment or have credit for INRW 0402. Semester Hours 3 (3 lec)

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## **AGRI 1307 Agronomy**

Principles and practices in the development, production, and management of field crops including growth and development, climate, plant requirements, pest management, and production methods. Semester Hours 3 (3 lec)

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## **AGRI 1315 Horticulture**

Structure, growth, and development of horticultural plants. Examination of environmental effects, basic principles of reproduction, production methods ranging from outdoor to controlled climates, nutrition, and pest management. Semester Hours 3 (3 lec)

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## **BIOL 1322 Nutrition & Diet Therapy**

This course introduces general nutritional concepts in health and disease and includes practical applications of that knowledge. Special emphasis is given to nutrients and nutritional processes including functions, food sources, digestion, absorption, and metabolism. Food safety, availability, and nutritional information including food labels, advertising, and nationally established guidelines are addressed. Semester Hours 3 (3 lec)

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## **BIOL 1406 Biology for Science Majors I**

Fundamental principles of living organisms will be studied, including physical and chemical properties of life, organization, function, evolutionary adaptation, and classification. Concepts of cytology, reproduction, genetics, and scientific reasoning are included. NOTE: Must have passed the reading and writing portion of the TSI Assessment or have credit for INRW 0402. Semester Hours 4 (3 lec/3 lab)

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## **BIOL 1407 Biology for Science Majors II**

The diversity and classification of life will be studied, including animals, plants, protists, fungi, and prokaryotes. Special emphasis will be given to anatomy, physiology, ecology, and evolution of plants and animals. Prerequisite: BIOL 1406 with a minimum grade of C. Semester Hours 4 (3 lec/3 lab)

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## **BIOL 1408 Biology for Non-Science Majors I**

Provides a survey of biological principles with an emphasis on humans, including chemistry of life, cells, structure, function, and reproduction. Semester Hours 4 (3 lec/3 lab)

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## **BIOL 1409 Biology for Non-Science Majors II**

This course will provide and reinforce a survey and of biological principles with an emphasis on humans, including evolution, ecology, plant and animal diversity, and physiology. Semester hours 4 (3 lec/3 lab)

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## **BIOL 1411 General Botany**

Fundamental biological concepts relevant to plant physiology, life cycle, growth and development, structure and function, and cellular and molecular metabolism. Includes the role of plants in the environment, evolution, and phylogeny of major plant groups, algae, and fungi. This course is intended for science majors. Semester Hours 4 (3 lec/3 lab)

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## **BIOL 1413 General Zoology**

Fundamental biological concepts relevant to animals, including systematics, evolution, structure and function, cellular and molecular metabolism, reproduction, development, diversity, phylogeny, and ecology. This course is intended for science majors. Semester Hours 4 (3 lec/3 lab)

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## **BIOL 2389 Academic Cooperative**

An instructional program designed to integrate on-campus study with practical hands-on work experience in the biological sciences/life sciences. In conjunction with class seminars, the student will set specific individual goals and objectives in the study of living organisms and their systems. Prerequisite: BIOL 1406, 1407, 1411, 1413, 2401, 2402 or 2420. Semester Hours 3 (2 lec/3 lab)

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## **BIOL 2401 Anatomy & Physiology I**

Anatomy and Physiology I is the first part of a two-course sequence. It is a study of the structure and function of the human body including cells, tissues and organs of the following systems: integumentary, skeletal, muscular, and nervous and special senses. Emphasis is on interrelationships among systems and regulation of physiological functions involved in maintaining homeostasis. NOTE: Must have passed the reading and writing portion of the TSI Assessment or have credit for INRW 0402. Semester Hours 4 (3 lec/3 lab)

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## **BIOL 2402 Anatomy & Physiology II**

Anatomy and Physiology II is the second part of a two-course sequence. It is a study of the structure and function of the human body including the following systems: endocrine, cardiovascular, immune, lymphatic, respiratory, digestive (including nutrition), urinary (including fluid and electrolyte balance), and reproductive (including human development and genetics). Emphasis is on interrelationships among systems and regulation of physiological functions involved in maintaining homeostasis. Prerequisite: BIOL 2401 with a grade of C or better. Semester Hours 4(3 lec/3 lab)

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## **BIOL 2404 Anatomy & Physiology (specialized)**

Study of the structure and function of human anatomy, including the neuroendocrine, integumentary, musculoskeletal, digestive, urinary, reproductive, respiratory, and circulatory systems. Content may be either integrated or specialized. Semester Hours 4 (3 lec/3 lab)

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## **BIOL 2420 Microbiology for Non-Science Majors**

This course covers basic microbiology and immunology and is primarily directed at pre-nursing, pre-allied health, and non-science majors. It provides an introduction to historical concepts of the nature of microorganisms, microbial diversity, the importance of microorganisms and acellular agents in the biosphere, and their roles in human and animal diseases. Major topics include bacterial structure as well as growth, physiology, genetics, and biochemistry of microorganisms. Emphasis is on medical microbiology, infectious diseases, and public health. Prerequisite: BIOL 1406, 1408, 1409, 2401 or 2404 with a grade of C or better. Semester Hours 4 (3 lec/3 lab)

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## **CHEM 1405 Introductory Chemistry I**

Survey course introducing chemistry. Topics may include inorganic, organic, biochemistry, food/physiological chemistry, and environmental/consumer chemistry. Designed for allied health students and for students who are not science majors. Semester Hours 4 (3 lec/3 lab)

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## **CHEM 1409 General Chemistry for Engineering Majors**

Fundamental principles of chemistry for engineering majors; topics include measurements, fundamental properties of matter, states of matter, chemical reactions, acid-base concepts, chemical stoichiometry, periodicity of elemental properties, atomic structure, chemical bonding, molecular structure, solutions, properties of gases, phase-diagrams, introduction to chemical equilibrium, chemical thermodynamics, electrochemistry, and an introduction to descriptive inorganic chemistry and organic chemistry. Basic laboratory experiments supporting theoretical principles presented in CHEM 1309; introduction of the scientific method, experimental design, chemical instrumentation, data collection and analysis, and preparation of laboratory reports. Prerequisites: MATH 1314 with a minimum grade of C or equivalent preparation. Semester Hours 4 (3 lec/4 lab)

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## **CHEM 1411 General Chemistry I**

Fundamental principles of chemistry for majors in the sciences, health sciences, and engineering; topics include measurements, fundamental properties of matter, states of matter, chemical reactions, chemical stoichiometry, periodicity of elemental properties, atomic structure, chemical bonding, molecular structure, solutions, properties of gases, and an introduction to thermodynamics and descriptive chemistry. Includes basic laboratory experiments supporting theoretical principles presented in CHEM 1411, as well as an introduction of the scientific method, experimental design, data collection and analysis, and preparation of laboratory reports. Prerequisite: MATH 1314 with a minimum grade of C, passing score on non-credit equivalency exam for MATH 1314, or consent of division chair. High school chemistry is strongly recommended. Semester Hours 4 (3 lec/3 lab)

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## **CHEM 1412 General Chemistry II**

Chemical equilibrium, phase diagrams and spectrometry, acid-base concepts, thermodynamics, kinetics, electrochemistry, nuclear chemistry, an introduction to organic chemistry and descriptive inorganic chemistry. Includes basic laboratory experiments supporting theoretical principles presented in CHEM 1412, as well as an introduction of the scientific method, experimental design, chemical instrumentation, data collection and analysis, and preparation of laboratory reports. Prerequisite: CHEM 1411 with a grade of C or better. Semester Hours 4 (3 lec/4 lab)

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## **CHEM 2389 Academic Cooperative**

An instructional program designed to integrate on-campus study with practical hands-on work experience in the physical sciences. In conjunction with class seminars, the students will set specific individual goals and objectives in the scientific study of inanimate objects, processes of matter and energy, and associated phenomena. Prerequisite: CHEM 2423. Semester Hours 3 (2 lec/3 lab)

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## **CHEM 2423 Organic Chemistry I**

Fundamental principles of organic chemistry will be studied, including the structure, bonding, properties, and reactivity of organic molecules, as well as properties and behavior of organic compounds and their derivatives. Emphasis is on organic synthesis and mechanisms. Includes study of covalent and ionic bonding, nomenclature, stereochemistry, structure and reactivity, reaction mechanisms, functional groups, and synthesis of simple molecules. Methods of purification and identification of organic compounds will be examined. This course is intended for students in science or pre-professional programs. Prerequisite: CHEM 1411 and 1412 with a grade of C or better. Semester Hours 4 (3 lec/4 lab)

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## **CHEM 2425 Organic Chemistry II**

Advanced principles of organic chemistry will be studied, including the structure, properties, and reactivity of aliphatic and aromatic organic molecules, as well as properties and behavior of organic compounds and their derivatives. Emphasis is on organic synthesis and mechanisms. Includes study of covalent and ionic bonding, nomenclature, stereochemistry, structure and reactivity, reaction mechanisms, functional groups, and synthesis of simple molecules. This course is intended for students in science or pre-professional programs. Prerequisite: CHEM 2423 with a grade of C or better. Semester Hours 4 (3 lec/4 lab)

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## **ARTS 1301 Art Appreciation**

A general introduction to the visual arts designed to create an appreciation of the vocabulary, media, techniques, and purposes of the creative process. Students will critically interpret and evaluate works of art within formal, cultural, and historical contexts. Semester Hours 3 (3 lec)

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## **ARTS 1303 Art History I (Prehistoric to the 14th Century)**

A chronological analysis of the historical and cultural contexts of the visual arts from prehistoric times to the 14th century. Semester Hours 3 (3 lec)

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## **ARTS 1304 Art History II (14th Century to the Present)**

A chronological analysis of the historical and cultural contexts of the visual arts from the 14th century to the present day. Semester Hours 3 (3 lec)

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## **DRAM 1310 Theater Appreciation**

Survey of theater including its history, dramatic works, stage techniques, production procedures, and relation to other art forms. Participation in major productions may be required. Applies as a required Humanities or Visual & Performing Arts course for all students. Semester Hours 3 (3 lec)

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## **DRAM 2361 History of Theater I**

Study of the history of the theater from primitive times through the Renaissance. Required of theatre majors; open to non-theatre majors. Semester Hours 3 (3 lec)

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## **DRAM 2362 History of Theater II**

Study of the history of the theater from the Renaissance through today. Required of theatre majors; open to non-theatre majors. Semester Hours 3 (3 lec)

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## **HUMA 1315 Fine Arts Appreciation**

This course is an exploration of the purposes and processes in the visual and performing arts (such as music, painting, architecture, drama, and dance) and the ways in which they express the values of cultures and human experience. Semester Hours 3 (3 lec)

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## **MUSI 1306 Music Appreciation**

Understanding music through the study of cultural periods, major composers, and musical elements. Illustrated with audio recordings and live performances. (Does not apply to a music major degree.) Applies as a required humanities or fine arts course for all students. Semester Hours 3 (3 lec)

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## **MUSI 1308 Music Literature I**

Survey of the principal musical forms and cultural periods as illustrated in the literature of major composers. Surveys music literature from Gregorian chant to the early classical period. Emphasis is on music materials and listening skills through recorded music and scores. Required for music majors and minors. Semester Hours 3 (3 lec)

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## **MUSI 1309 Music Literature II**

Survey of the principal musical forms and cultural periods as illustrated in the literature of major composers. Surveys music literature from the classical period to the present. Emphasis is on music materials and listening skills through recorded music and scores. Required for music majors and minors. Semester Hours 3 (3 lec)

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## **MUSI 1310 American Music**

General survey of various styles of music in America. Topics may include jazz, ragtime, folk, rock, and contemporary art music. Satisfies general humanities elective requirements. Semester Hours 3 (3 lec)

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## **ENVR 1101 Environmental Science I (lab)**

This laboratory-based course accompanies ENVR 1301 Environmental Science (lecture). Activities will cover methods used to collect and analyze environmental data. Prerequisite: Credit for or concurrent enrollment in ENVR 1301. Semester Hour 1 (3 lab)

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### **ENVR 1102 Environmental Science II (lab)**

General interest course requiring a minimum of previous science background and relating scientific knowledge to problems involving energy and the environment. Lab exercises relate scientific knowledge to problems involving energy and the environment. Includes research projects related to the historical development of current environmental practices and concerns. May include other research projects dealing with current or potential environmental concerns. Prerequisite: Credit for or concurrent enrollment in ENVR 1302. Semester Hour 1 (3 lab)

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### **ENVR 1301 Environmental Science I (lecture)**

A survey of the forces, including humans, that shape our physical and biologic environment, and how they affect life on Earth. Introduction to the science and policy of global and regional environmental issues, including pollution, climate change, and sustainability of land, water, and energy resources. Semester Hours 3 (3 lec)

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### **ENVR 1302 Environmental Science II - Lecture**

General interest course requiring a minimum of previous science background and relating scientific knowledge to problems involving energy and the environment. Semester Hours 3 (3 lec)

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### **ENVR 1401 Environmental Science I (lecture + lab)**

A survey of the forces, including humans, that shape our physical and biologic environment, and how they affect life on Earth. Introduction to the science and policy of global and regional environmental issues, including pollution, climate change, and sustainability of land, water, and energy resources. The laboratory activities will cover methods used to collect and analyze environmental data. Semester Hours 4 (3 lec/3 lab)

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### **ENVR 1402 Environmental Science II**

General interest course requiring a minimum of previous science background and relating scientific knowledge to problems involving energy and the environment. Lab exercises relate scientific knowledge to problems involving energy and the environment. Includes research projects related to the historical development of current environmental practices and concerns. May include other research projects dealing with current or potential environmental concerns. Semester Hours 4 (3 lec/3 lab)

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### **GEOL 1101 Earth Sciences I for Non-Science Majors (lab)**

This laboratory-based course accompanies GEOL 1301 Earth Sciences I. Activities will cover methods used to collect and analyze data in geology, meteorology, oceanography and astronomy. Prerequisite: GEOL 1301. Semester Hours 1 (3 lab)

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### **GEOL 1102 Earth Sciences II for Non-Science Majors (lab)**

This laboratory-based course accompanies GEOL 1302 Earth Sciences II. Activities will focus on methods used to collect and analyze data related to natural resources, hazards and climate variability. Prerequisite: Credit for or concurrent enrollment in GEOL 1302. Semester Hour 1 (3 lab)

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### **GEOL 1103 Physical Geology Laboratory**

This laboratory-based course accompanies GEOL 1303 Physical Geology. Laboratory activities will cover methods used to collect and analyze earth science data. Prerequisite: GEOL 1303 or concurrent enrollment. Semester Hour 1 (3 lab)

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### **GEOL 1104 Historical Geology Laboratory**

This laboratory-based course accompanies GEOL 1304 Historical Geology. Laboratory activities will introduce methods used by scientists to interpret the history of life and major events in the physical development of earth from rocks and fossils. Prerequisite: GEOL 1304. Semester Hour 1 (3 lab)

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### **GEOL 1301 Earth Sciences I for Non-Science Majors (lecture)**

Survey of geology, meteorology, oceanography and astronomy. Semester Hours 3 (3 lec)

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### **GEOL 1302 Earth Sciences II for Non-Science Majors (lecture)**

Extension of the study of geology, astronomy, meteorology and oceanography, focusing on natural resources, hazards and climate variability. Prerequisite: GEOL 1401, 1403 or 1404. Semester Hours 3 (3 lec)

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### **GEOL 1303 Physical Geology (lecture)**

Introduction to the study of the materials and processes that have modified and shaped the surface and interior of Earth over time. These processes are described by theories based on experimental data and geologic data gathered from field observations. Semester Hours 3 (3 lec)

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### **GEOL 1304 Historical Geology (lecture)**

A comprehensive survey of the history of life and major events in the physical development of Earth as interpreted from rocks and fossils. Prerequisites: GEOL 1303 or 1403. Semester Hours 3 (3 lec)

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### **GEOL 1401 Earth Sciences I for Non-Sciences Majors (lecture + lab)**

Survey of geology, meteorology, oceanography, and astronomy. The lab activities will cover methods used to collect and analyze data in geology, meteorology, oceanography and astronomy. Semester Hours 4 (3 lec/3 lab)

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### **GEOL 1402 Earth Sciences II for Non-Science Majors (lecture + lab)**

Extension of the study of geology, astronomy, meteorology and oceanography, focusing on natural resources, hazards and climate variability. Lab activities will focus on methods used to collect and analyze data related to natural resources, hazards and climate variability. Prerequisite: GEOL 1401, 1403 or 1404. Semester Hours 4 (3 lec/3 lab)

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### **GEOL 1403 Physical Geology (lecture + lab)**

Introduction to the study of the materials and processes that have modified and shaped the surface and interior of Earth over time. These processes are described by theories based on experimental data and geologic data gathered from field observations. Laboratory activities will cover methods used to collect and analyze earth science data. Semester Hours 4 (3 lec/3 lab)

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### **GEOL 1404 Historical Geology (lecture + lab)**

A comprehensive survey of the history of life and major events in the physical development of Earth as interpreted from rocks and fossils. Laboratory activities will introduce methods used by scientists to interpret the history of life and major events in the physical development of earth from rocks and fossils. Prerequisite: GEOL 1303 or 1403. Semester Hours 4 (3 lec/3 lab)

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### **GEOL 2389 Academic Cooperative**

An instructional program designed to integrate on-campus study with practical hands-on work experience in the physical sciences. In conjunction with class seminars, the student will set specific individual goals and objectives in the scientific study of inanimate objects, processes of matter and energy, and associated phenomena. Semester Hours 3 (3 lec)

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### **ENGL 2321 British Literature**

A survey of the development of British literature from the Anglo-Saxon period to the present. Students will study works of prose, poetry, drama, and fiction in relation to their historical, linguistic, and cultural contexts. Texts will be selected from a diverse group of authors and traditions. Prerequisite: ENGL 1301 or ENGL 2311. Semester Hours 3 (3 lec)

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### **ENGL 2322 British Literature I**

A survey of the development of British literature from the Anglo-Saxon period to the Eighteenth Century. Students will study works of prose, poetry, drama, and fiction in relation to their historical, linguistic, and cultural contexts. Texts will be selected from a diverse group of authors and traditions. Prerequisite: ENGL 1301 or ENGL 2311. Semester Hours 3 (3 lec)

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### **ENGL 2323 British Literature II**

A survey of the development of British literature from the Romantic period to the present. Students will study works of prose, poetry, drama, and fiction in relation to their historical and cultural contexts. Texts will be selected from a diverse group of authors and traditions. Prerequisite: ENGL 1301 or ENGL 2311. Semester Hours 3 (3 lec)

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### **ENGL 2326 American Literature**

A survey of American literature from the period of exploration and settlement to the present. Students will study works of prose, poetry, drama, and fiction in relation to their historical and cultural contexts. Texts will be selected from among a diverse group of authors for what they reflect and reveal about the evolving American experience and character. Prerequisite: ENGL 1301 or ENGL 2311. Semester Hours 3 (3 lec)

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### **ENGL 2327 American Literature I: Up to the Civil War**

A survey of American literature from the period of exploration and settlement through the Civil War. Students will study works of prose, poetry, drama, and fiction in relation to their historical and cultural contexts. Texts will be selected from among a diverse group of authors for what they reflect and reveal about the evolving American experience and character. Prerequisite: ENGL 1301 or ENGL 2311. Semester Hours 3 (3 lec)

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### **ENGL 2328 American Literature II: Civil War to the Present**

A survey of American literature from the Civil War to the present. Students will study works of prose, poetry, drama, and fiction in relation to their historical and cultural contexts. Texts will be selected from among a diverse group of authors for what they reflect and reveal about the evolving American experience and character. Prerequisite: ENGL 1301 or ENGL 2311. Semester Hours 3 (3 lec)

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### **ENGL 2331 World Literature**

A survey of world literature from the ancient world to the present. Students will study works of prose, poetry, drama, and fiction in relation to their historical and cultural contexts. Texts will be selected from a diverse group of authors and traditions. Prerequisite: ENGL 1301 or ENGL 2311. Semester Hours 3 (3 lec)

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### **ENGL 2332 World Literature I: Up to the 17th Century**

A survey of world literature from the ancient world through the 16th century. Students will study works of prose, poetry, drama, and fiction in relation to their historical and cultural contexts. Texts will be selected from a diverse group of authors and traditions. Prerequisite: ENGL 1301 or ENGL 2311. Semester Hours 3 (3 lec)

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### **ENGL 2333 World Literature II: 17th Century to the Present**

A survey of world literature from the 17th century to the present. Students will study works of prose, poetry, drama, and fiction in relation to their historical and cultural contexts. Texts will be selected from a diverse group of authors and traditions. Prerequisite: ENGL 1301 or ENGL 2311. Semester Hours 3 (3 lec)

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### **ENGL 2341 Forms of Literature**

The study of one or more literary genres including, but not limited to, poetry, fiction, drama, and film. Prerequisite: ENGL 1301 or ENGL 2311. Semester Hours 3 (3 lec)

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### **FREN 2311 Intermediate French I**

Review and application of skills in listening comprehension, speaking, reading, and writing. Emphasizes conversation, vocabulary acquisition, reading, composition, and culture. Prerequisite: FREN 1412, three years of high school French, or consent of instructor or division chair. Students with three years of high school French are encouraged to see a French instructor prior to enrolling. Semester Hours 3 (3 lec)

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### **GERM 2311 Intermediate German I**

Review and application of skills in listening comprehension, speaking, reading, and writing. Emphasizes conversation, vocabulary acquisition, reading, composition, and culture. Prerequisite: GERM 1412, three years of high school German, or consent of instructor or division chair. Students with three years of high school German are encouraged to see a German instructor prior to enrolling. Semester Hours 3 (3 lec)

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### **HUMA 1301 Introduction to Humanities I**

This stand-alone course is an interdisciplinary survey of cultures focusing on the philosophical and aesthetic factors in human values with an emphasis on the historical development of the individual and society and the need to create. Team taught by faculty from diverse departments as a colloquium (academic seminar led by a different lecturer and on a different topic at each session). Works may include studies, journals, novels, poems, treatises, graphic novels, films, plays, paintings, musical compositions, etc. Semester Hours 3 (3 lec)

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### **HUMA 1302 Introduction to Humanities II**

This stand-alone course is an interdisciplinary survey of cultures focusing on the philosophical and aesthetic factors in human values with an emphasis on the historical development of the individual and society and the need to create. Team taught by faculty from diverse departments as a colloquium (academic seminar led by a different lecturer and on a different topic at each session). Works may include studies, journals, novels, poems, treatises, graphic novel films, plays, paintings, musical compositions, etc. Semester Hours 3 (3 lec)

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### **PHIL 1301 Introduction to Philosophy**

A study of major issues in philosophy and/or the work of major philosophical figures in philosophy. Topics in philosophy may include theories of reality, theories of knowledge, theories of value, and their practical applications. Semester Hours 3 (3 lec)

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### **PHIL 1304 Introduction to World Religions**

A comparative study of world religions, including but not limited to Hinduism, Buddhism, Judaism, Christianity, and Islam. Semester hours 3

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### **PHIL 2306 Introduction to Ethics**

The systematic evaluation of classical and/or contemporary ethical theories concerning the good life, human conduct in society, morals, and standards of value. Semester Hours 3 (3 lec)

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### **SPAN 2311 Intermediate Spanish I**

The consolidation of skills acquired at the introductory level. Further development of proficiency in listening, speaking, reading and writing. Emphasis is on comprehension, appreciation, and interpretation of the cultures of the Spanish-speaking world. Prerequisite: SPAN 1412, three years of high school Spanish, or consent of instructor or division chair. Students with three years of high school Spanish are encouraged to see a Spanish instructor prior to enrolling. Semester Hours 3 (3 lec)

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**SGNL 2301 Intermediate ASL I**

Review and application of conversational skills in American Sign Language and interpreting from signing to voice as well as from voice to signing. Introduction to American Sign Language literature and folklore. Prerequisite: SGNL 1402 with a grade of C or better or consent of the program director. Semester Hours 3 (3 lec)

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