

Course	Department	Degree	Sustainability Covered	Description
Agricultural Commodities	Agriculture	Undergraduate	Resource Conservation	<p>AGRIC251 - Agricultural Commodities 3-0-3 is designed to help farmers develop marketing skills by determining production costs and understanding the cash and futures markets, to conduct a technical analysis of the markets, and to use these principles to develop a marketing plan for their own operation. Offered in Fall.</p> <p>Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates, AAS, ALS</p>
Agricultural Economics	Agriculture	Undergraduate	Resource Conservation	<p>AGRIC232 - Agricultural Economics 3-0-3 applies the principles of economics to agricultural problems and the role of agriculture in the United States and world economies. Includes production principles; production costs, supply, and revenue; profit maximization; consumption and demand; price elasticity; market price determination; and competitive versus noncompetitive market models. Examination of the world food situation, including population growth, world food production trends, trade in agricultural products, and agriculture's role in economic growth; agriculture characteristics and inputs (natural, human, and capital); the marketing of agricultural products (functional and institutional commodity approaches to marketing, marketing costs, and the operation of the futures market); and agricultural problems and policies (program goals, price and income, and resource use). Offered in Spring.</p> <p>Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates, AAS, ALS</p>
Agriculture Work Exp Practicum	Agriculture	Undergraduate	Resource Conservation	<p>AGRIC290 - Work Exp Practicum &amp; Seminar 1-10-3 provides the student with an opportunity to apply knowledge and skills gained in the academic setting to real work situations. The suitability of the work setting for this practicum is determined through consultation with the Agribusiness and/or Horticulture faculty, the prospective employer, and the student. The work experience should be directly related to the student's desired career objectives and should serve as a supplemental source of learning. Topics to be addressed during the practicum include, but are not limited to, job performance, relationship to supervisors, time management, record keeping, customer relations, decision making, sales, and maintenance. The practicum will include the student's participation in mandatory seminars to be scheduled with the instructor at the beginning of the semester and a minimum of 120 hours of workbased experience. Offered as needed.</p> <p>(prerequisite: sophomore standing and a minimum completion of 45 credit hours toward an Agribusiness Degree or approval of the Dean)</p> <p>Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates, AAS, ALS</p>
Animal Science	Agriculture	Undergraduate	Resource Conservation	<p>AGRIC106 - Animal Science (IAI: AG 902) 3-2-4 is an application of the sciences of genetics, physiology and nutrition to the improvement of the animal industries and an introduction to management and production practices. Includes animal breeds, breeding and selection; anatomy, physiology, and nutrition and growth; environment, health and sanitation; products and marketing; production technology and economics; animal behavior; and current issues in animal science. Offered in Spring.</p> <p>Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates and Degrees</p>
Bedding and Plant Production	Horticulture	Undergraduate	Resource Conservation	<p>HORT 231 - Bedding and Plant Production 2-2-3 introduces students to identification and commercial production of bedding plants. Offered in Spring.</p> <p>(prerequisite: HORT 230)</p> <p>Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates, AAS, ALS</p>
Career Planning and Development	Student Development	Undergraduate	People & Communities	<p>DEV112 - Career Planning and Development 3-0-3 provides the student with a presentation of career development and career decision making as a lifelong process and an introduction and discussion of the relationship of individuals to the world of work. Students will practice their approach to decision-making in personal, academic, and career planning. Students will explore values, skills, interests, and abilities as they relate to the world of work. Job search techniques, resume, development, cover letters, and interviewing skills will be developed as a part of the course. (Students may not receive credit for C DEV112 and P DEV109, 110, and/or 111.) Offered in Spring.</p> <p>Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates and Degrees</p>

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Chemistry in Everyday Life	Chemistry	Undergraduate	Resource Conservation	CHEM 106 - Chemistry in Everyday Life (IAI: P1 903L) 3-2-4 is designed as a general introduction to chemistry for non-majors. The course will examine the impact of chemistry on our everyday life including its impacts on health, the environment, and our society. Offered in Fall and Spring. (prerequisite: eligibility for ENGL 101 and MATH 098) Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates and Degrees
Commercial Air Conditioning	HVAC	Undergraduate	Resource Conservation	HVAC 250 - Commercial Air Conditioning 2-2-3 focuses on the various types of commercial air conditioning units including split and self-contained roof-top units. Emphasis will be on multistage cooling, three-phase applications, energy management, and indoor air quality requirements. Offered in Spring. (prerequisite: HVAC 132 or ENGT 111 and HVAC 140 or concurrent enrollment) Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates, AAS, ALS
Commercial Heating Systems	HVAC	Undergraduate	Resource Conservation	HVAC 252 - Commercial Heating Systems 2-2-3 emphasizes the installation and service of high efficiency and commercial heating and humidifying systems, including steam and hydronic heat, heat pumps and heat recovery systems. Offered in Spring. (prerequisite: HVAC 242 or concurrent enrollment) Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates, AAS, ALS
Commercial Refrigeration	HVAC	Undergraduate	Resource Conservation	HVAC 204 - Commercial Refrigeration 2-2-3 emphasizes medium and low temperature refrigeration systems and equipment used in commercial applications (e.g., walk-in coolers/freezers; supermarket rack refrigeration; ultra-low temp freezing systems; and ice making systems). Emphasis is on the diagnosis and repair of these systems. Offered in Spring. (prerequisite: HVAC 202 or concurrent enrollment) Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates, AAS, ALS
Community Leadership	Student Development	Undergraduate	People & Communities	LDEV 111 - Community Leadership 3-0-3 will emphasize a holistic review and development of the critical aspects of leadership, linking its personal and professional dimensions, to broaden knowledge and skills, and to develop a style of positive, functional and visionary leadership for work, the community, state, nation, and the world. Classes will be held in numerous community settings in interaction with professionals and community leaders and with active engagement of students in lectures, discussions and applied practice. Topics will include collaborative management, marketing strategies, effective communications, innovation, finance and development strategies, politics, career assessment, civic engagement, global and intercultural diversity, conflict management, and personal wellness. Offered as needed. Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates and Degrees
Comparative Economic Systems	Economics	Undergraduate	People & Communities	ECON 225 - Comparative Economic Systems 3-0-3 compares the similarities between various economies through an examination of systems of various countries/regions, including the former Soviet Union, China, Japan, Europe, Pacific Rim, and other economies. The course also includes the trade-off between efficiency and equity, economic freedom and economic order, and market-oriented systems versus planned economic systems. Offered as needed. (prerequisite: eligibility for ENGL 101) Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates and Degrees
Concepts of Biology I	Biology	Undergraduate	Resource Conservation	BIOL 101 - Concepts of Biology 1 (IAI: L1 900L, BIO 910) 3-2-4 is an introduction to basic principles of biology with emphasis on the biochemistry, structure, function, and organization of cells. Topics include scientific method, cellular respiration, photosynthesis, cellular reproduction, molecular and classical genetics, and an introduction to evolution and ecology. This course includes lecture and laboratory classes. Offered in Fall, Spring, and Summer. (prerequisite: eligibility for ENGL 101) Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates and Degrees

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Concepts of Biology II	Biology	Undergraduate	Resource Conservation	<p>BIOL 102 - Concepts of Biology 2 (IAI: BIO 910) 3-2-4 is a continuation of Biology 101 with an emphasis on organismal biology or biodiversity. Structure and function of major groups of microorganisms, fungi, animals, and plants are introduced. Evolutionary trends and ecological relationships are observed in the increasing complexity of life from microorganisms to vertebrates and angiosperms. Laboratories include microscope work, field work, and the dissection of representative invertebrates and vertebrates. This course includes lecture and laboratory classes. Offered in Spring.</p> <p>(prerequisite: successful completion ["C" or better grade] of BIOL 101)</p> <p>Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates and Degrees</p>
Contemporary Issues in AgriBusiness	Agriculture	Undergraduate	Resource Conservation	<p>AGRIC195 - Contemporary Issues in AgriBusiness 3-0-3 provides an introduction to issues and career opportunities in agriculture focusing on, but not limited to, agribusiness. Topics may include communications, finance, economics, accounting, commodity marketing, and the study of the political landscape of agriculture. An in-depth dialogue and possible field visits will help develop an understanding of the skill sets needed to succeed in each of the different areas discussed. Offered in Spring.</p> <p>Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates, AAS, ALS</p>
Control Applications	HVAC	Undergraduate	Resource Conservation	<p>HVAC 132 - Control Applications 2-2-3 covers control construction, operation, and applications; and the development, wiring, and troubleshooting of control schematics for basic HVACR systems. Also covers pneumatic motors &amp; controls. Offered in Spring.</p> <p>(prerequisite: HVAC 130)</p> <p>Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates, AAS, ALS</p>
Crop Science	Agriculture	Undergraduate	Resource Conservation	<p>AGRIC130 - Crop Science (IAI: AG 903) 3-2-4 examines basic principles of plant growth, including human and environmental influences and the theoretical and practical application of agronomic principles to crop production. Includes the historical and economic importance of crop plants for food, feed, and fiber; origin, classification, and geographic distribution of field crops; environmental factors and agronomic problems; crop plant breeding, growth, development, and physiology; cropping systems and practices; seedbed preparation, tillage, and crop establishment; pests and controls; and harvesting, storing, and marketing practices. Offered in Spring.</p> <p>Applicable toward graduation where program structure permits:</p>
Culinary Applications	Culinary	Undergraduate	Resource Conservation	<p>CA 115 - Culinary Applications 2-4-4 focuses on development of 1) strong basic culinary skill, 2) sanitation, 3) speed and efficiency, and 4) proper nutrition. Students will continue to expand their culinary knowledge and skills. Students study and practice how to operate efficiently and effectively in a variety of restaurant kitchen stations such as broiler, saute, roundsman, etc. Special emphasis is placed on presentations and plating of quality food served to the public. Students will develop an understanding of key cooking terms and procedures such as roasting, braising, sauteing, grilling and broiling. Students will also learn proper cooking techniques for vegetables and starches. Offered in Spring.</p> <p>(prerequisite: CA 105)</p> <p>Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates, AAS, ALS</p>
Earth Science	Earth Science	Undergraduate	Resource Conservation	<p>EASCI210 - Physical Geography (IAI: P1 909L) 3-2-4 offers an introductory study of physical geography and is designed to develop a basic understanding of the Earth, its landscapes and its climates. It concentrates on the earth as a system and on the variety of physical environments with which humans must deal. Lab activities include working with various types of geographical data, such as topographic maps, climate classification, and weather. Offered in Fall and Spring.</p> <p>(prerequisite: eligibility for ENGL 101)</p> <p>Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates and Degrees</p>

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Environmental Biology	Biology	Undergraduate	Resource Conservation	<p>BIOL 210 - Environmental Biology (IAI: L1 905L) 3-2-4 teaches a foundation of basic ecological principles that leads to an examination of current issues of environmental concern. Lectures will include such topics as air/water/soil pollution, overpopulation, extinction, deforestation, global warming, and ozone depletion. Laboratory exercises will include indoor experiments, outdoor field studies, and visits to local facilities of environmental concern. Offered in Fall and Spring. (prerequisite: eligibility for ENGL 101)</p> <p>Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates and Degrees</p>
Fruit Production	Horticulture	Undergraduate	Resource Conservation	<p>HORT 226 - Fruit Production 2-2-3 covers the science and practice of growing, harvesting, handling, storing, processing, and marketing of fruits. Crops include apples, pears, peaches, blackberries, raspberries, strawberries, grapes, and other fruits commonly grown in the area. Offered in Fall.</p> <p>Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates, AAS, ALS</p>
Fuel and Emission Systems	Automotive Technology	Undergraduate	Resource Conservation	<p>AUTO 203 - Fuel and Emission Systems 1-7-4 introduces the advanced student to the functions and components of advanced fuel injection and turbo and super charging. Through classroom work and hands-on applications, students will become familiar with the following equipment and operations: turbochargers and superchargers; gasoline, diesel, and propane fuels; fuel supply systems; carburetors; fuel injection systems and injectors; gasoline and diesel fuel injection components; exhaust systems; and emission controls and modifications. Students will also be introduced to diagnostic and performance testing procedures. Offered as needed. (prerequisite: AUTO 102)</p> <p>Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates, AAS, ALS</p>
Global Topics in Business	Business	Undergraduate	People & Communities	<p>BUS 228 - Global Topics in Business 3-0-3 introduces the student to the global economy and its interrelationships with countries of the world and the multinational corporations. The objectives of the course are to expose students to a better understanding of how foreign countries work in the marketplace and how these economies impact upon our business environment. Whenever possible, practical applications are used to further explain the theories. Offered in Fall. (prerequisite: BUS 100)</p> <p>Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates, AAS, ALS</p>
Greenhouse Operation (DOC)	Department of Corrections	Undergraduate	Resource Conservation	<p>DGRHS143 - Greenhouse Operation 1-6-4 is an introductory course designed to give students a basic understanding of the maintenance and proper use of greenhouse structures and equipment. Proper safety procedures, growing techniques, and management practices used in producing greenhouse crops are covered. Offered as needed.</p> <p>Applicable toward graduation where program structure permits: Certificate or Degree - All Basic Certificates, ALS</p>
Greenhouse Operations	Horticulture	Undergraduate	Resource Conservation	<p>HORT 230 - Greenhouse Operations 2-2-3 includes a study of greenhouse construction and operation. Special emphasis is given to temperature, light, soils, gases, nutrition, and the growth of bedding plants. Offered in Fall.</p> <p>Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates, AAS, ALS</p>
Horticulture Science	Horticulture	Undergraduate	Resource Conservation	<p>HORT 100 - Horticulture Science (IAI: AG 905) 3-2-4 provides a general background in horticulture plant growth and development. Areas include the production, utilization, and marketing of fruits, vegetables, ornamentals, floriculture, landscaping, turf, and nursery. Offered in Fall.</p> <p>Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates and Degrees</p>
Human Relations	Personnel Relations	Undergraduate	People & Communities	<p>P REL100 - Human Relations 3-0-3 explores the fundamentals of human relations in all fields of everyday life. Study includes interpersonal relationships in both the work and home environment. The course is designed to improve the student's understanding of individual behavior and group dynamics. Topics covered include communication skills, assertiveness, setting goals, interviewing, cooperation, and handling conflict. Class activities are used to illustrate various human relations skills. Offered in Fall, Spring, and Summer. (prerequisite: successful completion of OT 119 or eligibility for ENGL 101)</p> <p>Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates, AAS, ALS</p>

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Inequality and Social Changes in Africa	Sociology	Undergraduate	People & Communities	<p>SOCIO155 - Inequality &amp; Social Change in Africa 3-0-3 explores some of the major social problems that plague Africa. Theories from Sociology and Psychology will be used to analyze and understand the topics covered in this class. Functions of the basic social institutions in Africa will be reviewed and compared to social institutions in America. Social problems that will be explored will include but not be limited to tribalism, government conflict, sexism, rape, patriarchy, AIDS/HIV, health problems in general, poverty and its consequences, orphaned and vulnerable children, hunger, lack of water and sanitation, globalization and its effects. Social responses whether positive or negative will be reviewed. Offered as needed. (prerequisite: eligibility for ENGL 101) Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates and Degrees</p>
Integrated Pest Management	Horticulture	Undergraduate	Resource Conservation	<p>HORT 125 - Integrated Pest Management 2-2-3 emphasizes the building and maintaining of healthy soil, plant and insect biological cycles as the key to pest and disease management. Course content includes study of major pests and diseases, including structure, life cycle, and favored hosts; and biological and least toxic methods of chemical control. Upon completion, students should be able to identify and recommend control methods of selected insects and diseases. Offered in Spring. Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates, AAS, ALS</p>
Interdisciplinary Field Experience in the Social Science	Social Science	Undergraduate	People & Communities	<p>SOC S280 - Interdisciplinary Field Experience in the Social Science 3-0-3 students travel with faculty to international or regional locations that may vary from year to year to study the social sciences and to increase their awareness and understanding of other societies. Each field experience will emphasize the historical, economic, political, and sociological aspects of the society of the locale being visited for the field experience portion of the class. Textbooks and readings from these disciplines will be a significant part of the course. Instructors from two or more of these disciplines will provide teaching relating to the field experience society. Classes will be held on campus prior to and following the off-campus learning experience. Field experiences will include individualized lectures, presentations, and directed field trips. The students will pay travel expenses. Offered as needed. (prerequisite: eligibility for ENGL 101) Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates and Degrees</p>
Intro to Meteorology	Earth Science	Undergraduate	Resource Conservation	<p>EASCI230 - Intro to Meteorology (IAI: P1 905L) 3-2-4 is an introduction to the study of weather. Students will acquire a basic understanding of meteorology, weather terminology and atmospheric science, including global weather patterns and climatic change. Lab activities include working with a variety of atmospheric data and weather maps. Offered in Fall and Spring. (prerequisite: eligibility for ENGL 101 and MATH 091) Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates and Degrees</p>
Intro to Physical Geology	Earth Science	Undergraduate	Resource Conservation	<p>EASCI220 - Intro to Physical Geology (IAI: P1 907L) 3-2-4 is an introduction to the study of physical geology and will give students a basic understanding of the processes that shape the earth. Topics include plate tectonics, volcanism, rocks and minerals, landforms and the various processes that shape landforms. Lab activities include the hands-on study of rocks and minerals, as well as the use of topographic maps and computer simulations. Offered as needed. (prerequisite: eligibility for ENGL 101) Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates and Degrees</p>

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Intro to Power Plant Systems I	Power Generation	Undergraduate	Resource Conservation	P GEN101 - Intro to Power Plant Systems 1 3-2-4 is the first of a three-course sequence that gives the students an understanding of the function and integrated operation of the power generation systems and safety systems typically found in a commercial nuclear generation facility. This course has two distinct phases: The first phase will be a review of basic steam plant thermodynamic principles. Representative topics are basic thermodynamics, properties of steam, the general energy equation, heat transfer and fluid flow, thermodynamic cycles and cycle analysis and steam turbine and pump theories. The second phase will cover the major steam cycle systems in a boiling water reactor (BWR) nuclear generation facility. Representative topics are main steam system, extraction steam system, main turbine, main condenser, and feedwater delivery system. Offered in Spring. (prerequisite: PHYS 101 or equivalent competencies) Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates, AAS, ALS
Intro to Power Plant Systems II	Power Generation	Undergraduate	Resource Conservation	P GEN102 - Intro to Power Plant Systems 2 3-2-4 is the second of a three-course sequence that gives the student an understanding of the function and integrated operation of the power generation systems and safety systems typically found in a commercial nuclear generation facility. This course has two distinct phases: The first phase is a review of basic electrical theory. Representative topics include direct current and alternating current theory, battery theory, motor/generator theory, transformer theory, and electrical distribution theory. The second phase will cover the major electrical systems found in a boiling water reactor (BWR) nuclear generation facility. Representative topics include main generator, AC and DC electrical distribution, circuit breakers, and protective relaying. Offered in Fall. (prerequisite: MATH 117 and PHYS 102) Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates, AAS, ALS
Intro to Power Plant Systems III	Power Generation	Undergraduate	Resource Conservation	P GEN103 - Intro to Power Plant Systems 3 3-0-3 is the third in a three-course sequence that gives the student an understanding of the function and integrated operation of the power generation systems and safety systems typically found in a commercial nuclear generation facility. This course will cover the major nuclear steam supply systems (NSSS) and safety systems of a commercial boiling water reactor. Representative topics include reactor vessel and internals, nuclear fuel, reactor core spray, low pressure core spray, residual heat removal, primary and secondary containment, and standby liquid control. Offered in Spring. (prerequisite: P GEN102) Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates, AAS, ALS
Intro to Radiation Protection I	Power Generation	Undergraduate	Resource Conservation	P GEN104 - Intro to Radiation Protection 1 4-0-4 provides the basic fundamentals of radiation protection. Topics include physical principles, atomic structure, radioactivity, radiation interactions with matter, sources of radiation, and biological effects of radiation. Offered in Spring. (prerequisite: MATH 098 and completion or concurrent enrollment in P GEN101) Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates, AAS, ALS
Intro to Radiation Protection II	Power Generation	Undergraduate	Resource Conservation	P GEN202 - Intro to Radiation Protection 2 3-0-3 is a continuation of Radiation Protection 1. Topics will include discussion of radiation detection instruments, basic dosimetry, dose calculation, federal limits and implementation, power plant radiation analysis (practical problems), and protective clothing and equipment. Offered in Spring. (prerequisite: P GEN104) Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates, AAS, ALS
Introduction to Horticulture (DOC)	Department of Corrections	Undergraduate	Resource Conservation	DHRT 140 - Introduction to Horticulture 2-2-3 acquaints the student with a basic understanding of the form and function of plants. This course will cover employability opportunities and skills necessary for employment, which will be reinforced throughout the remainder of the program. Offered as needed. Applicable toward graduation where program structure permits: Certificate or Degree - All Basic Certificates, ALS
Introduction to Mass Media	Media	Undergraduate	People & Communities	MEDIA110 - Introduction to Mass Media (IAI: MC 911) 3-0-3 examines the mass media of our society: newspapers, magazines, radio, and television. The course treats the development of the media to their present forms, the process and theory of mass communications, and issues arising from the present state of mass media, such as "new journalism," "protected sources," and freedom of the press. Offered as needed. Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates and Degrees

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Job Preparation	Student Development	Undergraduate	People & Communities	P DEV111 - Job Preparation (Variable Credit) 1-0-0 to 1 is designed to teach effective job search techniques to students. Students prepare a resume, and cover letter, prepare for an interview, practice interviewing skills, and organize a job search. The course includes a review of current job search literature. (Students may not receive credit for C DEV 112 and P DEV 109, 110, and/or 111.) Offered as needed. Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates and Degrees
Marketing Fundamentals	Business	Undergraduate	People & Communities	BUS 240 - Marketing Fundamentals 3-0-3 is a fundamental course describing the business activities involved in product planning, pricing, promoting, and distributing want-satisfying goods and services. Other topics include market segmentation, consumer motivation and behavior, and legal influences. Marketing cases are used to illustrate current principles and techniques and to enhance development of managerial skills. Offered in Spring. (prerequisite: completion of or concurrent enrollment in OT 119 or eligibility for ENGL 101) Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates, AAS, ALS
Microbiology	Biology	Undergraduate	Resource Conservation	BIOL 220 - Microbiology 3-2-4 is an introductory course in the principles of microbiology and their application to medicine, agriculture, sanitation, and industry. Training in laboratory technique pertinent to the field is included. Offered in Fall, Spring, and Summer. (prerequisite: successful completion ["C" or better grade] of BIOL 101 or successful completion ["B" or better grade for each course] of two years of high school biology and 1 year of high school chemistry within the last three years) Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates and Degrees
Motor Control Systems	HVAC	Undergraduate	Resource Conservation	HVAC 230 - Motors and Controls 2-2-3 allows students to analyze, set up, and troubleshoot single and poly-phase motor starting systems, damper actuators, and economizers. Emphasis is on the service and repair of residential and light commercial HVACR systems including open and hermetic motors, rooftops, and split systems. Offered in Fall. (prerequisite: HVAC 132) Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates, AAS, ALS
Nursery Operations (DOC)	Department of Corrections	Undergraduate	Resource Conservation	DNURS145 - Nursery Operations 1.5-3-3 includes principles of woody plant production from planning to salable plants. Cultural procedures for field and container nursery production will be introduced. Approved practices of fertilization, pest control, planting, irrigation, over-wintering and harvesting are introduced. Offered as needed. Applicable toward graduation where program structure permits: Certificate or Degree - All Basic Certificates, ALS
Occupational Safety	Engineering Technology	Undergraduate	People & Communities	ENGT 105 - Occupational Safety (MSSC-1) 3-0-3 is an introductory course and is appropriate for operators, technicians, supervisors, and managers desiring to learn the fundamentals of occupational safety and health. Most topics discussed relate to the General Industry Standards established by the Occupational Safety and Health Administration (OSHA). This course identifies common hazards in business and industry and investigates various methods of controlling those hazards. This is primarily a lecture and discussion course; however, several hands-on demonstrations are used to enhance instruction. Presentations are similar to shop floor safety meetings. Offered in Fall and Spring. Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates, AAS, ALS
People, Society and Culture	Sociology	Undergraduate	People & Communities	SOCIO100 - People, Society, and Culture 3-0-3 is designed to provide an opportunity for students to develop a basic understanding of how culture, society, and groups in which they live and participate affect their lives. The course also can serve as a foundation for those who wish to familiarize themselves with fundamental concepts about behavior of people in groups prior to beginning a formal study of sociology. Students who have earned credit for SOCIO 110 should not register for this course except upon special approval of the Dean of Mathematics and Sciences and may receive credit toward graduation for only one of these two courses. Offered in Fall and Spring. Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates and Degrees
Perennial Plant Material	Horticulture	Undergraduate	Resource Conservation	HORT 200 - Perennial Plant Material 2-2-3 emphasizes identification, selection, use, and management of perennials and ornamental grasses in the landscape. Offered in Spring. Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates, AAS, ALS

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Pest Control (DOC)	Department of Corrections	Undergraduate	Resource Conservation	DPEST142 - Pest Control 2-2-3 includes identification of major pests, their life cycles and the damage they cause. Feasibility and methods of horticultural pest control are covered, along with the proper identification and usage of pesticides. Proper safety procedures are emphasized throughout the course. At the conclusion of this course students will be able to pass the Illinois Commercial Pesticide Operator Core Test and the Private Pesticide Applicator Test. Offered as needed. Applicable toward graduation where program structure permits: Certificate or Degree - All Basic Certificates, ALS
Physical Geography	Earth Science	Undergraduate	Resource Conservation	EASCI210 - Physical Geography (IAI: P1 909L) 3-2-4 offers an introductory study of physical geography and is designed to develop a basic understanding of the Earth, its landscapes and its climates. It concentrates on the earth as a system and on the variety of physical environments with which humans must deal. Lab activities include working with various types of geographical data, such as topographic maps, climate classification, and weather. Offered in Fall and Spring. (prerequisite: eligibility for ENGL 101) Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates and Degrees
Plants and Society	Biology	Undergraduate	Resource Conservation	BIOL 120 - Plants and Society (IAI: L1 901) 3-0-3 is an introduction to plant biology with an emphasis on plant structure, plant physiology, plant growth and reproduction, and the economic importance of plants. Also, it includes an interrelationship between plants and humans. Offered as needed. (prerequisite: eligibility for ENGL 101) Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates and Degrees
Problem-Based/Project-Based Service Learning	Service Learning	Undergraduate	People & Communities	SLRN 295 - Problem-Based/Project-Based Service Learning (Variable Credit) 0-15-1 to 3 Students participating in this model of service learning relate to the "community" somewhat like "consultants" working for a "client" for the purposes of addressing a specific problem or participating in or completing a service project. Under supervision and direction of the instructor who develops the course in consultation with appropriate stakeholders from the community or from a social service agency, students work collaboratively and in teams throughout the semester or for a designated period to understand the scope of the problem or need and to develop strategies and activities appropriate for addressing the problem or need. Students are expected to maintain logs of all project- or problem-related activities, to practice reflective learning through journaling, to develop and present to stakeholders a formal proposal or action plan for addressing the problem or need, and/or to complete a service learning project. Repeatable - 3 times. Offered as needed. (prerequisite: completion of at least 30 hours of course work at RCC or another college or university and approval of the Director of Campus Life and a disciplinelevel faculty member in an appropriate discipline.) Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates and Degrees
Produce Preparation (DOC)	Department of Corrections	Undergraduate	Resource Conservation	DPROD134 - Produce Preparation 1-4-3 covers the preparation of vegetables and fruits for serving and storage. Salad and salad dressing preparation and cooking techniques for fruits and vegetables are also stressed. Offered as needed. (prerequisite: DFPRE132) Applicable toward graduation where program structure permits: Certificate or Degree - All Basic Certificates, ALS
Quality Fundamentals	Engineering Technology	Undergraduate	People & Communities	ENGT 260 - Quality Fundamentals (IAI: IND 914) 2-2-3 is an introduction to industrial quality control systems and the development of the concept of total quality control engineering, process improvement, and quality information systems. An analysis of the step-by-step process for quality assurance and improvement is studied. Topics include Total Quality Management (TQM), Total Quality Control (TQC), Statistical Process Control (SPC), Continuous Improvement Processes (CIP), Six Sigma, Organizations Development, Supplier Quality, benchmarking, and the economic impact of quality costs to provide for a complete view of manufacturing today. The course includes quality systems selection, project implementation including sampling plans, data gathering, data analysis, problem solving, interpretation, X-R charts, and attribute charts. Emphasis is placed on how the quality process is utilized to determine the process refinements necessary to improve quality, process capability, improve productivity, and determine continuing improvement strategies. Offered in Fall. (prerequisite: ENGT 160 or approval of instructor) Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates and Degrees



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Residential and Self Contained Refrigeration	HVAC	Undergraduate	Resource Conservation	HVAC 202 - Residential and Self-Contained Refrigeration 2-2-3 introduces basic refrigeration components; piping systems sizing and selection; installation, servicing, and troubleshooting of residential refrigeration systems; and controls for reach-in coolers/freezers, ice machines, and dehumidifiers. Offered in Fall. (prerequisite: HVAC 140 or concurrent enrollment) Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates, AAS, ALS
Residential Heating Systems	HVAC	Undergraduate	Resource Conservation	HVAC 242 - Residential Heating Systems 2-2-3 explores procedures and principles used in the service of residential heating systems, emphasizing the heating properties, combustion, burners, controls, ignition systems, safety and operating controls, installation, venting combustion, air & troubleshooting for both gas-fired and electric furnaces. Offered in Fall. (prerequisite: HVAC 132 or ENGT 111) Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates, AAS, ALS
Service Learning Internship	Service Learning	Undergraduate	People & Communities	SLRN 293 - Service Learning Internship (Variable Credit) 3-15-1 to 3 Offered as needed. (prerequisite: Students must have completed at least 30 hours of course work at RCC or another college or university and must obtain the approval of the Director of Campus Life and a discipline-level faculty member or dean in an appropriate discipline) Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates and Degrees
Serving Learning in the Discipline	Service Learning	Undergraduate	People & Communities	SLRN 294 - Service Learning in the Discipline 2-1-2 Offered as needed. (prerequisite: Students must have completed at least 30 hours of course work at RCC or another college or university and must obtain the approval of the Director of Campus Life and a discipline-level faculty member in an appropriate discipline) Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates and Degrees
Small Farm Business Management	Horticulture	Undergraduate	Resource Conservation	HORT 235 - Small Farm Business Management 2-2-3 introduces hands-on techniques and procedures for planning and opening a small business, including the personal qualities needed for entrepreneurship. Emphasis is placed on market research, finance, time management, and day-to-day activities of owning/operating a small farm business. Offered in Spring. Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates, AAS, ALS
Small Farm Equipment	Horticulture	Undergraduate	Resource Conservation	HORT 128 - Small Farm Equipment 2-2-3 is a study of farm machinery and agricultural equipment for the small farm. Topics include selection and operation of tractors, material handling equipment, tillage and harvesting equipment and irrigation systems. Upon completion, students should be able to identify equipment parts and explain the basic principles of machinery operation and management. Offered in Fall. Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates, AAS, ALS
Small Scale Livestock Management	Horticulture	Undergraduate	Resource Conservation	HORT 126 - Small Scale Livestock Management 2-2-3 covers the integration of livestock as part of a sustainable farming system with emphasis on small-scale production for niche markets and pasture. Topics included are breed selection, nutrition and living requirements for livestock such as goats, hogs, sheep, poultry, rabbits and honey bees. Upon completion, students should recognize appropriate breeds for their farm needs and demonstrate knowledge of small-scale livestock production. Offered in Spring. Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates, AAS, ALS
Social Problems	Sociology	Undergraduate	People & Communities	SOCIO150 - Social Problems (IAI: S7 901) 3-0-3 provides exploratory studies of contemporary social problems using the concepts and techniques of sociological inquiry. Possible topics include alienation, population, drugs, work and leisure, poverty, aging, war, the environment, the sexual revolution, extremism and dissent, and technological progress. Offered as needed. (prerequisite: SOCIO 110) Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates and Degrees

Course	Department	Degree	Sustainability Covered	Description
Soil Science	Agriculture	Undergraduate	Resource Conservation	<p>AGRIC210 - Soil Science (IAI: AG 904) 3-2-4 is an introduction to the chemical, physical, and biological properties of soils; the origin, classification, and distribution of soils and their influence on people and food production; the management and conservation of soils; and the environmental impact of soil use. Offered in Spring.</p> <p>(prerequisite: CHEM 100 or 110 or consent of full-time instructor)</p> <p>Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates and Degrees</p>
Soils and Fertility	Horticulture	Undergraduate	Resource Conservation	<p>HORT 115 - Soils &amp; Fertility 2-2-3 covers the chemical properties of fertilizers, types, production and use in relation to soil properties, environmental conditions, crop requirements, applications, and economic factors of liming and nutrient applications. Students will be introduced to basic principles of soil formation, texture, structure, moisture and organic matter and how soils and fertility relates to agriculture and horticulture practices. Offered in Fall.</p> <p>Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates, AAS, ALS</p>
Soils (DOC)	Department of Corrections	Undergraduate	Resource Conservation	<p>DSOIL141 - Soils 1.5-1-2 gives the student an overview of soil structure, horizons textural classifications and chemical properties. It provides a basic knowledge of soil PH, nutrient requirements and water requirements. Concepts for soil analysis and recommendations for tillth improvement, fertility and conservation practices are also covered. Offered as needed.</p> <p>Applicable toward graduation where program structure permits: Certificate or Degree - All Basic Certificates, ALS</p>
Strategic Decision Making	Business	Undergraduate	People & Communities	<p>BUS 280 - Strategic Decision Making 3-0-3 covers strategic planning and decision making with an emphasis on entrepreneurship. Topics include long and short-term planning, charting and other decision enhancement tools, total quality management, and the continuous improvement process. Students will use software to create a business plan. Offered as needed.</p> <p>(prerequisite: BUS 100)</p> <p>Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates, AAS, ALS</p>
Sustainable Agriculture Fundamentals	Horticulture	Undergraduate	Resource Conservation	<p>HORT 116 - Sustainable Agriculture Fundamentals 2-2-3 provides a clear perspective on the principles, history and practices of sustainable agriculture in our local and global communities. Students will be introduced to the economic, environmental and social impacts of agriculture. Upon completion, students should be able to identify the principles of sustainable agriculture as they relate to basic production practices. Offered in Fall.</p> <p>Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates, AAS, ALS</p>
System Integration	Horticulture	Undergraduate	Resource Conservation	<p>HORT 290 - Work Experience Practicum &amp; System Integration 1-10-3 provides students in the Horticulture program the opportunity to apply principles learned in other courses to the work situation by employment in or observation of activities necessary for the student to succeed in the workplace. Offered as needed.</p> <p>(prerequisite: minimum completion of 30 credit hours toward a Horticulture degree or approval from Horticulture faculty)</p> <p>Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates, AAS, ALS</p>
Topics/Issues in the Social Sciences	Social Science	Undergraduate	People & Communities	<p>SOC S199 - Topics/Issues in the Social Sciences 1-0-1 provides the students an opportunity to participate in comprehensive discussion of a topic dealing with contemporary issue(s) in the social science (psychology, sociology, economics, history, political science, and public affairs). The course requires no prior depth of knowledge, but it is expected that the student has a particular interest in the seminar topic. Offered as needed.</p> <p>Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates and Degrees</p>
Tree and Shrub Maintenance	Horticulture	Undergraduate	Resource Conservation	<p>HORT 225 - Tree &amp; Shrub Maintenance 2-2-3 studies the techniques of ornamental tree and shrub care, including plant biology, planting and transplanting, pruning, fertility, pest control, and equipment use and safety. On completion, the student should be able to properly prune trees and shrubs and perform arboriculture practices. Offered in Fall.</p> <p>(prerequisite: HORT 120)</p> <p>Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates, AAS, ALS</p>

Course	Department	Degree	Sustainability Covered	Description
Troubleshooting Air Conditioning Systems	HVAC	Undergraduate	Resource Conservation	HVAC 140 - Troubleshooting Air Conditioning Systems 2-2-3 promotes the development of diagnostic and repair skills by simulating both electrical and mechanical system faults in computer-generated HVAC systems. Emphasis is on professionalism, accuracy, proper tool selection, and timeliness of the repair. Offered in Spring. (prerequisite: HVAC 132 or ENGT 111; and HVAC 102 or concurrent enrollment) Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates, AAS, ALS
Troubleshooting Refrigeration Systems	HVAC	Undergraduate	Resource Conservation	HVAC 202 - Residential and Self-Contained Refrigeration 2-2-3 introduces basic refrigeration components; piping systems sizing and selection; installation, servicing, and troubleshooting of residential refrigeration systems; and controls for reach-in coolers/freezers, ice machines, and dehumidifiers. Offered in Fall. (prerequisite: HVAC 140 or concurrent enrollment) Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates, AAS, ALS
Turf Management	Horticulture	Undergraduate	Resource Conservation	HORT 110 - Turf Management 2-2-3 emphasizes general types of turf grasses, their growth habits, and the establishment of turf. Fertilizers, diseases, insects, weeds, and some turf equipment are included. Offered in Spring. Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates, AAS, ALS
Vegetable Crop Production	Horticulture	Undergraduate	Resource Conservation	HORT 202 - Vegetable Crop Production 2-2-3 includes summer sustainable crop production practices, including vegetable and culinary herbs. Topics include variety selection, production methods and record keeping procedures. Students will actively participate in their learning experience by working on Richland's Student Farm, participating in the production, harvesting and distribution of sustainable crop products. Offered in Spring. (prerequisite: HORT 115 & HORT 116) Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates, AAS, ALS
Weed & Pest Control	Agriculture	Undergraduate	Resource Conservation	AGRIC200 - Weed & Pest Control 3-2-4 covers the safety and handling of approved agricultural pesticides with emphasis on pesticides used in corn and soybean production. Students will develop the ability to select pesticides, formulate mixes, and understand how to apply materials in a safe and approved manner. Also included are discussion and understanding of integrated pest management principles and practices as related to weed and pest control. Offered as needed. Applicable toward graduation where program structure permits: Certificate or Degree - All Certificates, AAS, ALS