Minutes of the Undergraduate Curriculum Committee
August 11, 2011
217 Koldus

Members present: Robert Knight (Chair), College of Agriculture and Life Sciences; Tim Scott (Vice-Chair), College of Science; John Tyler, Dwight Look College of Engineering; Sarah Bednarz, College of Geosciences; Mike Stephenson, College of Liberal Arts; Liesl Wesson, Mays Business School; Suzanne Shurtz, Medical Sciences Library; James Herman, College of Veterinary Medicine and Biomedical Sciences.

Guests: John Nichols, Department of Agricultural Economics; Deb Dunsford, Department of Agricultural Leadership, Education, and Communications; David Forrest, Department of Animal Science; Sarah Ura, Department of Economics; Mort Kothmann, Department of Ecosystem Science and Management; Cecelia Hawkins and Elizabeth Tebeaux, Department of English; Jim Heilman, Department of Soil and Crop Sciences.

The Undergraduate Curriculum Committee recommends approval of the following:

1. The minutes of the June 10, 2011 meeting.

2. New Courses

AGEC 435. Personal Financial Planning for Professionals. (3-0). Credit 3. Personal financial planning from a professional perspective; applying basic financial, economic, and institutional concepts to advise individuals, families, and small businesses in achieving their financial goals; tools and topics include financial analysis, budgeting credit management, time value of money, investment strategies, income taxes, risk management, retirement, and estate planning. Prerequisites: AGEC 330 or 3 hours of finance; junior or senior classification.

ANSC 423. Issues in the Equine Industry. (3-0). Credit 3. Integration of cumulative knowledge acquired in the equine science curriculum to demonstrate critical thinking and communication skills to address critical issues in the equine industry. Prerequisites: Junior or senior classification; approval of instructor.

CHEN 301. Engineering Workplace Writing. (3-0). Credit 3. Processes for preparing documents commonly developed by engineers in the workplace; database research; electronic collaboration; ethics, planning, drafting, revising, and editing reports, proposals, correspondence, instructions, procedures, and presentations for the engineering workplace; meets ABET communication requirements. Prerequisites: ENGL 104 or equivalent; junior or senior classification in chemical engineering or approval by CHEN.

ECON 433. Energy Markets and Policy. (3-0). Credit 3. Economics of energy markets and energy regulation with emphasis on implications for optimal energy policy; sectors include gasoline, oil, electricity, natural gas, renewables, nuclear; economic theory integrated with empirical applications from American and international experience; new energy markets, energy trading, and interaction with environmental policy. Prerequisites: ECON 323 and STAT 211/STAT 303 or approval of instructor; junior or senior classification.

ESSM 201. Exploring Ecosystem Science and Management. (1-0). Credit 1. Exploration of knowledge, skills and abilities required for varied careers within ecosystem science and management; development of a professional portfolio and résumé; exploration of career options through team approach; conduct one service project.

ESSM 306. Plant Functional Ecology and Adaptation. (3-0). Credit 3. Investigation of physiological mechanisms influencing ecological patterns and processes, including plant acclimation and adaptation in contrasting habitats; abiotic controls on species productivity and distribution; underlying genetic and evolutionary mechanisms contributing to the occurrence of specific genotypes and phenotypes in unique environments. Prerequisites: RENR 205, any BIOL course, junior or senior classification or approval of instructor.

ESSM 311. Biogeochemistry and Global Change. (3-0). Credit 3. Framework for understanding biogeochemical cycles, their significance at both global and ecosystem levels of organization, and their contemporary relevance to ecosystem science and management. Prerequisites: RENR 205, RENR 215, any BIOL and/or CHEM course, junior or senior classification or approval of instructor.

ESSM 313. Vegetation Sampling Methods and Designs in Ecosystems. (2-2). Credit 3. Basis for vegetation sampling in ecosystems; methods for conducting sampling; selection of sampling unit appropriate for vegetation type; sampling statistics; mean comparisons; regression analysis; sampling design principles; development of sampling plan; presentation and interpretation of sampling data. Prerequisites: Any MATH course satisfying university core curriculum, junior or senior classification or approval of instructor.

ESSM 318. Coupled Social and Ecological Systems. (3-0). Credit 3. Resilience-based stewardship of social-ecological systems; ecological concepts of resilience, sustainability, ecosystem services, and vulnerability; investigation of linkages among social and ecological system components; contribution to sustainability and provisioning of ecosystem services; evaluation of multiple knowledge sources as the basis for adaptive ecosystem management. Prerequisites: RENR 205, AGEC 105 or equivalent, junior or senior classification or approval of instructor.

ESSM 459. Spatial Databases and Programming. (2-3). Credit 3. Computational tools for creating new data, sharing, integrating that data with other databases; conducting analyses and interpretation of information ranging from spreadsheets to advanced scientific workflow processing systems; tools to create higher quality, more useful data. Prerequisite: Junior or senior classification or approval of instructor.

ESSM 460. Advanced Remote-Sensing Based Field Survey. (1-2). Credit 2. Laboratory-oriented advanced field-based vegetation and soil mensuration methods; sampling design, vegetation and soil parameters, and data collection; use of global positioning systems (GPS), ultrasound distance measurement and plant diameter, laser hypsometers, digital cameras, ground penetrating radar (GPR), spectroradiometers, leaf area meters, soil moisture meters, terrestrial laser scanners (TLS). Prerequisites: ESSM 300 or ESSM 313, junior or senior classification or approval of instructor.

ESSM 464. Spatial Project Management. (2-2). Credit 3. Integration of key components of spatial project management to ensure a successful project implementation using life-cycle methodology and spatial project management; strategy and planning, requirements analysis, design, development, deployment, and operations and maintenance; term project working with real world data to develop and manage a spatial project for practical applications. Prerequisites: A minimum of two GIS and/or remote sensing courses at 300 or 400-level, junior or senior classification or approval of instructor.

RELS 340. Folklore and the Supernatural. (3-0). Credit 3. Traditional expressions of the supernatural such as superstition, belief tale and divination classified as folklore genres and their relationships to the cultures in which they develop; theories drawn from anthropology, folklore and related social sciences. Prerequisite: Junior or senior classification or approval of instructor. Cross-listed with ANTH 340.

RELS 364. Diversity Lessons from Medieval Spain. (3-0). Credit 3. Crucible of cultures – Christian, Jewish, and Muslim – that was medieval Spain and modern implication of the experience in diversity. Prerequisites: ENGL 104 and junior or senior classification or approval of instructor. Cross-listed with HISP 364.

RELS 418. European Intellectual History from Ancient Greece to the Early Middle Ages. (3-0). Credit 3. Political and social history of selected major figures and important movements in political theory, literature, sociology, art, economics and philosophy from Pre-Socratic Greece through the formative stages of the Christian Middle Ages. Prerequisite: Junior or senior classification or approval of instructor. Cross-listed with HIST 418.

RELS 419. European Intellectual History from the High Middle Ages to the 17th Century. (3-0). Credit 3. Political and social history of selected major figures and important movements in political theory, literature, sociology, art, economics and philosophy from the founding of Scholasticism and the University System to the New Philosophy and science of 17th century. Prerequisite: Junior or senior classification or approval of instructor. Cross-listed with HIST 419.

RELS 480. Religious Communication. (3-0). Credit 3. The role of religious communication as manifested in speeches, sermons, debates, campaigns, and social movements throughout history. May be taken two times for credit. Prerequisite: Junior or senior classification or approval of instructor. Cross-listed with COMM 480.

SCSC 205. Problem Solving in Plant and Soil Systems. (2-2). Credit 3. Problems in management of soils, crops, and natural resources; problem solving skills including collecting, interpreting, using and communicating scientific and nonscientific data.

SCSC 307. Crop Biology and Physiology. (3-2). Credit 4. Emphasis on seed biology, germination, development of cells and tissues, anatomy, and growth and development of crop plants; plant hormones and tropisms, membranes and membrane transport, water absorption and transport through plants, photosynthesis, respiration and carbohydrate metabolism, and flowering; environmental effects on crop adaptation, growth, development, and productivity. Prerequisites: SCSC 205, junior or senior classification, or approval of instructor.

SCSC 309. Water in Soils and Plants. (3-2). Credit 4. Fundamentals of plant water use, and water movement and storage in soils; evapotranspiration, plant water requirements and irrigation scheduling; issues impacting irrigation and water quality; techniques for measuring soil and plant water relations. Prerequisite: Junior or senior classification, or approval of instructor.

SCSC 311. Principles of Crop Production. (3-0). Credit 3. Review of plant physiology and crop adaptation to mesoclimates; crop management factors of planting, pest control, plant nutrition, irrigation, GIS, and harvesting techniques; special units on organic farming, conservation agriculture, farming in low-rainfall climates, and bioenergy crops; influence of markets, government policies, and the global economy on cropping strategies. Prerequisites: SCSC 307, junior or senior classification, or approval of instructor.

SCSC 402. Crop Stress Management. (3-2). Credit 4. Identification, measurement, biology, physiology and management of crop stress; limitations of specific environments to crop productivity; morphological and physiological crop stress response mechanisms. Prerequisites: SCSC 307, junior or senior classification, or approval of instructor.

SCSC 410. International Agricultural Systems. (3-0). Credit 3. Contrast modern agriculture systems with those in developing countries; emphasis on natural resources and technologies interacting with economic and social development on a global scale. Prerequisite: Junior or senior classification, or approval of instructor.

SCSC 427. Sports Field Construction. (3-3). Credit 4. Development of knowledge, skills, and experiences for the design and construction of a turfgrass-based sports field; case studies and visits to model fields, guest lectures from sports field owners, designers, and construction company managers; hands-on construction of a small-scale sand-based sports field. Prerequisites: SCSC 309, junior or senior classification, or approval of instructor.

SCSC 441. Crop Production Systems. (3-0). Credit 3. Integration of crop production and management concepts through a systems approach; application of concepts using case studies and team projects. Prerequisite: Senior classification or approval of instructor.

SCSC 444. Forage Ecology and Management. (3-0). Credit 3. Investigation of multidisciplinary approaches toward the development of integrated forage, livestock, and wildlife production systems that are economically feasible and environmentally sustainable. Prerequisite: Junior or senior classification or approval of instructor.

SCSC 446. Weed Management and Ecology. (3-2). Credit 4. Practical information related to weed management and ecology for various vegetative systems to include turf and agronomic crops; calibration of applicators, herbicide labels, mode of action of herbicides, herbicide-resistant weed management. Prerequisites: CHEM 222, SCSC 307, junior or senior classification, or approval of instructor.

3. Withdrawal of Courses

FRSC 101. Introduction to Forestry.
FRSC 102. Introduction to Spatial Science.
FRSC 291. Research.
FRSC 306. Forest Measurements.
FRSC 308. Tree Structure and Function.
FRSC 311. Wood Properties and Utilization.
FRSC 314. Forest Economics and Valuation.
FRSC 404. Forest Management.
FRSC 409. Manufacturing and Applications of Wood Products.
FRSC 414. Modeling Forest Resources.
FRSC 430. Introduction to Tree Improvement.
FRSC 484. Internship.
FRSC 485. Directed Studies.
FRSC 489. Special Topics in…
FRSC 491. Research.
RLEM 103. Introduction to Ecological Restoration.
SPSC 398. Interpretation to Aerial Photographs.
SPSC 444. Remote Sensing in Renewable Natural Resources.

SPSC 462. Advanced GIS Analysis for Natural Resource Management.

4. Change in Courses

ENGL 251. Language of Film.

Course title
From: Language of Film.
To: Introduction to Film Analysis.

Course description
From: Development of the language of film: major movements, representative works, theory and techniques; lecture/discussion following film screenings.
To: Fundamental aspects of film analysis and criticism.

Lecture and lab hours
From: (2-2). Credit 3.
To: (3-0). Credit 3.

Cross-listing
From: none
To: Cross-listed with FILM 251.

FILM 201. Introduction to Film Analysis.

Course number
From: FILM 201.
To: FILM 251.

Prerequisite
From: none
To: ENGL 104.

Cross-listing
From: none
To: Cross-listed with ENGL 251.

FRSC 203. Dendrology.

Course prefix
From: FRSC 203.
To: ESSM 203.

Course title
From: Dendrology.
To: Forest Trees of North America.

Course description
From: Taxonomy, identification and silvical features of the important timber and understory species of North America.

To: Taxonomy, phylogeny, and identification of the important forest trees of North America and their ecological and social uses and benefits.

Prerequisites
From: BIOL 111 or equivalent.
To: BIOL 101, BIOL 107, BIOL 111 or BIOL 113 and BIOL 123 or equivalent.

FRSC 300. Forest Practices.

Course prefix
From: FRSC 300.
To: ESSM 300.

Course title
From: Forest Practices.
To: Field Studies in Forest Ecosystems.

Course description
From: A field study of problems in mensuration, silviculture, ecology, soils, harvesting and their role in developing forest management systems.
To: Field-oriented focus on forest ecosystem science and management; problem-solve management questions through data collection and team-based research; investigate the relationships between landowner objectives, mensuration, silviculture, ecology, soils, and regeneration-focused harvesting systems; foster the development of student-faculty relationships; enhance professional knowledge and skills.

Lecture, lab and semester credit hours
From: (5-0). Credit 5.
To: (1-6). Credit 3.

Prerequisites
From: FRSC 305 and 306.
To: Junior or senior classification or approval of instructor.

FRSC 302. Fundamentals of Environmental Decision-Making.

Course prefix and number
From: FRSC 302.
To: ESSM 308.

Prerequisite
From: Junior classification or approval of instructor.
To: Junior or senior classification or approval of instructor.

FRSC 304. Forest Ecology.

Course prefix and number
From: FRSC 304.
To: ESSM 309.

FRSC 305. Silviculture.

Course prefix and number
From: FRSC 305.
To: ESSM 319.

Course title
From: Silviculture.
To: Principles of Forestry.

Course description
From: The theory and practice of controlling forest establishment, composition, structure and growth; principles of natural and artificial regeneration; intermediate cultural operations; silvicultural systems; use and control of fire in forests.
To: Theory and practice of forestry in controlling forest establishment, composition, structure and growth; principles of natural and artificial regeneration; intermediate cultural operations; silvicultural systems; use and control of fire in forests; principles of sustainable stand management.

Prerequisite
From: none
To: Junior or senior classification or approval of instructor.

FRSC 307. Forest Protection.

Course prefix
From: FRSC 307.
To: ESSM 307.

Lecture and semester credit hours
From: (3-3). Credit 4.
To: (2-3). Credit 3.

Prerequisites
From: Junior classification or approval of instructor.
To: RENR 205, AGEC 105 or equivalent, junior or senior classification or approval of instructor.

FRSC 398. Interpretation of Aerial Photographs.

Course prefix
From: FRSC 398.
To: ESSM 398.

Prerequisites
From: Any mathematics course and one of the following: SCSC 301, BIOL 111, FRSC 101, GEOG 203, GEOL 101, RENR 205, WFSC 101.
To: Junior or senior classification or approval of instructor.

Cross-listing
From: Cross-listed with GEOG 398 and SPSC 398.
To: none

FRSC 405. Integrated Forest Resource Analysis and Planning.

Course prefix
From: FRSC 405.
To: ESSM 405.

Course title
From: Integrated Forest Resource Analysis and Planning.
To: Forest Resource Assessment and Management.

Lecture, lab and semester credit hours
From: (3-3). Credit 4.
To: (1-4). Credit 3.

FRSC 406. Forest Policy.

Course prefix
From: FRSC 406.
To: ESSM 406.

Course title
From: Forest Policy.
To: Natural Resources Policy.

Course description
From: Forest policy development in the United States and review of current issues in forest and related natural resource policy.
To: Natural resources and forest policy development in the United States and review of current issues in forest and related natural resource policy.

Prerequisite
From: Senior classification or approval of instructor.
To: Junior or senior classification or approval of instructor.

FRSC 461. Geographic Information Systems for Resource Management.

Course prefix and number
From: FRSC 461.
To: ESSM 351.

Course description
From: Geographic Information System (GIS) approach to the integration of spatial and attribute data to study the capture, analysis, manipulation and portrayal of natural resource data; examination of data types/formats, as well as the integration of GIS with remote sensing and Global Positioning System; laboratory includes extensive use of GIS applications to conduct analyses of topics in natural resources.
To: Geographic Information Systems (GIS) approach to solving spatial problems and managing natural resources, including the capture, analysis, manipulation and mapping of spatial and non-spatial databases; identification of natural and cultural features from aerial photography and remote sensing products; integration of GPS technologies; extensive use of GIS software to solve real-world problems.

Prerequisite
From: Approval of instructor.
To: Junior or senior classification or approval of instructor.

Cross-listing
From: Cross-listed with AGSM 461 and SPSC 461.
To: none

PHYS 221. Optics and Thermal Physics.

Prerequisites
From: PHYS 208 or 219; MATH 152 or 172; registration in MATH 221, 308.
To: PHYS 208; MATH 152 or MATH 172; registration in MATH 221, MATH 308.

PHYS 222. Modern Physics for Engineers.

Prerequisites
From: PHYS 208 or 219; MATH 308 or registration therein.
To: PHYS 208; MATH 308 or registration therein.

PHYS 225. Electronic Circuits and Applications.

Prerequisites
From: PHYS 208 or 219; MATH 308.
To: PHYS 208; MATH 308.

PHYS 304. Advanced Electricity and Magnetism I.

Prerequisites
From: PHYS 221; MATH 311; registration in MATH 412.
To: PHYS 221; PHYS 331; concurrent enrollment in PHYS 332; junior or senior classification.

PHYS 401. Computational Physics.

Prerequisites
From: MATH 311; MATH 412; PHYS 302; PHYS 309; knowledge of a high level language such as FORTRAN or C. This prerequisite can be obtained by taking CSCE 206 or the equivalent.
To: PHYS 302; PHYS 309; PHYS 331; PHYS 332; knowledge of a high level language such as FORTRAN or C (This prerequisite can be obtained by taking CSCE 206 or the equivalent.); junior or senior classification.

PHYS 408. Thermodynamics and Statistical Mechanics.

Prerequisites
From: PHYS 412; MATH 311 or equivalent.
To: PHYS 331; PHYS 412; junior or senior classification.

PHYS 412. Quantum Mechanics I.

Prerequisites
From: PHYS 302 and 309; MATH 412.
To: PHYS 302; PHYS 309; PHYS 332; junior or senior classification.

RENR 444. Remote Sensing in Renewable Natural Resources.

Course prefix
From: RENR 444.
To: ESSM 444.

Course title
From: Remote Sensing in Renewable Natural Resources.
To: Remote Sensing of the Environment.

Course description
From: Application of fundamental photogrammetry and photo interpretation and the use of other sensors in remote detection and analysis of natural resources; interpretation of natural vegetation as it applies to ecosystem analysis for range, forest and wildlife management; natural resource planning for rural, urban and recreational development.

To: Principles and techniques necessary for applying remote sensing to diverse issues in studying and mapping land uses and land covers of the terrestrial environment; emphasizes a hands-on learning approach with theoretical foundations and applications in both aerial and satellite remote sensing, using optical and lidar datasets.

Prerequisite
From: Junior classification.
To: Junior or senior classification or approval of instructor.

Cross-listing
From: Cross-listed with SPSC 444.
To: none

RLEM 102. Introduction to Rangeland Systems.

Course prefix
From: RLEM 102.
To: ESSM 102.

Course title
From: Introduction to Rangeland Systems.
To: Introduction to Natural Resources and Ecosystem Management.

Course description
From: Introduction to rangeland resources and the systems approach to rangeland management; survey of the field of range management and related industries.
To: Introduction to natural resources and ecosystem system approach to wildland management; survey of the field of natural resources and related industries.

RLEM 301. Range and Forest Watershed Management.

Course prefix
From: RLEM 301.
To: ESSM 301.

Course title
From: Range and Forest Watershed Management.
To: Wildland Watershed Management.

Course description
From: Elements of watershed management and principles and practices of range and forest land management for protection, maintenance and improvement of water resource values.
To: Elements of watershed management and principles and practices of wildland management for protection, maintenance and improvement of water resource values.

Prerequisite
From: none
To: Junior or senior classification or approval of instructor.

RLEM 302. Rangeland Plants of North America.

Course prefix
From: RLEM 302.
To: ESSM 302.

Course title
From: Rangeland Plants of North America.
To: Wildland Plants of North America.

Course description
From: Familiarize students with the distribution and economic value of important rangeland plants in Texas and Western North America and teach fundamentals of sight identification of these plants. Plant collection required.
To: Familiarization with the distribution and economic value of important wildland plants in Texas and North America and fundamentals of sight identification of these plants; plant collection required.

RLEM 303. Agrostology.

Course prefix
From: RLEM 303.
To: ESSM 303.

Prerequisites
From: RLEM 314 and BIOL 101 or approval of instructor.
To: Junior or senior classification or approval of instructor.

RLEM 304. Rangeland Plant Taxonomy.

Course prefix
From: RLEM 304.
To: ESSM 304.

Prerequisites
From: RLEM 314 and BIOL 101 or approval of instructor.
To: Junior or senior classification or approval of instructor.

RLEM 315. Vegetation Inventory and Analysis.

Course prefix
From: RLEM 315.
To: ESSM 315.

Course title
From: Vegetation Inventory and Analysis.
To: Rangeland Inventory and Monitoring.

Course description
From: Range inventory techniques and vegetation sampling methods related to range site, range condition and trend, and degree of use; statistical analysis applied to sample data.
To: Theory and methods to inventory rangeland vegetation; sampling design; analysis of inventory data; interpretation of sampling data; preparation of a technical report; presentation of inventory data in text, tables, and graphs using the style of the Rangeland Ecology and Management discipline.

Lecture and semester credit hours
From: (2-2). Credit 3.
To: (0-2). Credit 1.

Prerequisites
From: RLEM 303 or 304; RLEM 314.
To: ESSM 313, junior or senior classification or approval of instructor.

RLEM 316. Range Communities and Ecosystems.

Course prefix
From: RLEM 316.
To: ESSM 316.

Course title
From: Rangeland Communities and Ecosystems.
To: Range Ecology.

Prerequisites
From: RENR 205 and 215, RLEM 303 or 304; RLEM 314.
To: RENR 205, RENR 215, ESSM 302, ESSM 314, ESSM 315, junior or senior classification or approval of instructor.

RLEM 317. Rangeland Vegetation Manipulation.

Course prefix
From: RLEM 317.
To: ESSM 317.

Course title
From: Rangeland Vegetation Manipulation.
To: Vegetation Management.

Course description

From: Range improvement practices such as grazing management, brush and weed control and structural developments as they apply to effective development and maintenance of range vegetation composition for wildlife and livestock habitat objectives; theory, application and economics of treatment scenarios related to rangeland resources management.

To: Familiarization with practices that cause changes in rangeland vegetation composition for multiple uses; understanding of criteria for range improvement practices; comparison of expected responses of livestock forage production, watershed parameters and wildlife to vegetation changes following range improvements; systems concept for planning, analysis and implementation of range improvement practices.

Lecture and semester credit hours

From: (2-0). Credit 2.

To: (3-0). Credit 3.

Prerequisites

From: RLEM 314 or approval of instructor.*

To: ESSM 314, junior or senior classification or approval of instructor.*

*Field trip required.

RLEM 320. Landscape Restoration.

Course prefix

From: RLEM 320.

To: ESSM 320.

Course title

From: Landscape Restoration.

To: Ecosystem Restoration and Management.

Course description

From: Ecological restoration of wildland landscapes; synthesis of traditional and ecological philosophies toward repair of degraded landscapes; introduction of concepts and technologies useful in the development of natural areas, biological diversity and sustainable wildland ecosystems; includes both lecture and case study components.

To: A basic conceptual framework for restoration ecology and ecological restoration; major principles of ecology related to practical problems confronting humankind, such as, environmental pollution and degradation, exotic species invasions, land use and management trade-offs and consequences; importance of biological diversity.

Lecture and semester credit hours

From: (2-0). Credit 2.

To: (3-0). Credit 3.

Prerequisites
From: BIOL 101 or RENR 205.
To: RENR 205, RENR 215 or equivalent, junior or senior classification or approval of instructor.

RLEM 415. Range Analysis and Management Planning.

Course prefix
From: RLEM 415.
To: ESSM 415.

Prerequisites
From: RLEM 314.
To: ESSM 314, junior or senior classification or approval of instructor.

RLEM 416. Fire and Natural Resources Management.

Course prefix
From: RLEM 416.
To: ESSM 416.

Course title
From: Fire and Natural Resources Management.
To: Fire Ecology and Natural Resource Management.

Prerequisites
From: Junior or senior classification or approval of instructor.
To: RENR 205 or equivalent, junior or senior classification or approval of instructor.

RLEM 420. Ecological Restoration of Wetland and Riparian Systems.

Course prefix
From: RLEM 420.
To: ESSM 420.

Prerequisites
From: RENR 205 and WFSC 428 or approval of instructor.
To: RENR 205, junior or senior classification or approval of instructor.

RLEM 430. Advanced Restoration Ecology: Current Concepts and Emerging Issues.

Course prefix
From: RLEM 430.
To: ESSM 430.

Course description

From: A dynamic discipline on fundamentals of ecology; translating and communicating key ecological concepts to advanced case studies in ecological restoration.

To: A dynamic discipline relying heavily on the fundamentals of ecology; practice translating and communicating key ecological concepts to advanced case studies in ecological restoration; enhance skills for professional applications.

RLEM 481. Seminar.

Course prefix

From: RLEM 481.

To: ESSM 481.

Course title

From: Seminar.

To: Senior Seminar.

Course description

From: Study, research and discussion of recent advances in rangeland ecology and management.

To: Completion of professional e-portfolio, résumé and job application; exploration of job search, application, and interview; discipline competency exams; program evaluation.

Prerequisite

From: Senior classification.

To: Senior classification in ESSM degree program.

SCSC 405. Soil Microbiology.

Course title

From: Soil Microbiology.

To: Soil and Water Microbiology.

Course description

From: Role of soil and water microorganisms in soil-plant systems. Microbial ecology, microbes in nutrient cycles important to agriculture, pesticide degradation, bacterial fertilizers, composting, waste disposal, plant microbe interactions. Laboratory estimation of soil microbial populations, and measurement of important biological processes in soil with current methods.

To: Roles of soil and water microorganisms in the sustainability and productivity of various ecosystems with specific emphasis on plant-microbial interactions, nutrient cycling, degradation of pesticides and other xenobiotics, generation of trace gases, and soil and water quality; hands-on laboratory experience with current techniques in soil and water microbiology.

Prerequisites

From: 3 hours of microbiology or approval of instructor.
To: SCSC 301, junior or senior classification, or approval of instructor.

SCSC 422. Soil Fertility and Fertilizers.

Course title

From: Soil Fertility and Fertilizers.
To: Soil Fertility and Plant Nutrient Management.

Course description

From: Chemical, biological and physical processes as they influence soil fertility. Manufacture of fertilizers and their reactions with soils.
To: Chemical and biological reactions in soils that influence nutrient availability to plants; environmental aspects associated with nutrient availability and fertilization, especially for nitrogen (N) and phosphorus (P).

Prerequisites

From: SCSC 301; registration in SCSC 432 or approval of instructor.
To: SCSC 301, junior or senior classification, or approval of instructor.

SCSC 432. Soil Chemistry and Fertility Laboratory.

Course title

From: Soil Chemistry and Fertility Laboratory.
To: Soil Fertility and Plant Nutrient Management Laboratory.

Course description

From: Measurement and interpretation of fertility status of soils by chemical methods.
To: Methods used in soil testing, fertilizer recommendations, chemical and physical properties of soils, and determination of specific characteristics of a collected and analyzed soil sample.

Prerequisites

From: SCSC 301; SCSC 422 or registration therein or approval of instructor.
To: SCSC 301; SCSC 422 or registration therein, junior or senior classification, or approval of instructor.

SCSC 455. Environmental Soil Science.

Course title

From: Environmental Soil Science.
To: Environmental Soil and Water Science.

Course description

From: Environmental aspects of soil receiving organic and inorganic materials involved with crop production and from wastes associated with agriculture, industry and municipalities; soil properties largely determine environmentally sound practices of applying these materials and the quantities that may be added without polluting air, soil and water resources.

To: Discussion of physical, chemical, and biological properties of soil and water and the impact on productivity and sustainability of various ecosystems; application of the knowledge of properties and soil processes to develop and evaluate strategies for protecting and/or improving soil and water quality.

SCSC 481. Agronomy Seminar.

Course title

From: Agronomy Seminar.

To: Senior Seminar.

Course description

From: Preparation and presentation by students of papers on pertinent agronomic topics.

To: Capstone course bringing together student experiences, exams, and exercises necessary for completing and assessing curriculum program learning outcomes.

Lecture and semester credit hours

From: (1-0). Credit 1.

To: (2-0). Credit 2.

Prerequisite

From: Senior classification in agronomy.

To: Senior classification.

College of Agriculture and Life Sciences

Department of Ecosystem Science and Management

Course prefix changes to ESSM (see memorandum from Dr. Mort Kothmann)

FRSC 462, RLEM 291, 305, 314, 440, 484, 485, 489 and 491

5. Change in Curricula

College of Agriculture and Life Sciences

B.S. in Renewable Natural Resources

Department of Ecosystem Science and Management

B.S. in Ecological Restoration

Department of Ecosystem Science and Management

B.S. in Forestry

Department of Ecosystem Science and Management
B.S. in Rangeland Ecology and Management
Ranch Management Option
Rangeland Resources Option

Department of Ecosystem Science and Management
B.S. in Spatial Sciences

6. Administrative Change

College of Agriculture and Life Sciences
Department of Soil and Crop Sciences
B.S. in Agronomy
Turfgrass Management Option
Request to change option to a stand-alone B.S. in Turfgrass Science degree

7. Special Consideration

College of Agriculture and Life Sciences
Department of Agricultural Leadership, Education, and Communications
B.S. in Agricultural Communication and Journalism
Request to correct degree program name

Department of Animal Science
Request for a Certificate in Equine Science

Department of Ecosystem Science and Management
B.S. in Forestry
Urban Forestry Option
Forest Resource Management Option
Request to discontinue degree options

Department of Soil and Crop Sciences
B.S. in Plant and Environmental Soil Science
Plant Science Career Emphasis
Environmental Soil Science Emphasis
Request to replace existing emphasis with two new emphases:
Crops Emphasis and Soil and Water Emphasis

College of Liberal Arts
Minor in Film Studies – requirement changes

College of Science
Department of Physics and Astronomy
B.A. and B.S. in Physics
Request to establish admission criteria to upper level Physics courses

8. Tabled Items
- New Courses
  - ANSC 211 – Lacks academic rigor; possibly adjust hours and prerequisites.

- ANSC 422 – stacked course reference needs more details on graduate project; letters of support or cross-listing with VLCS.
- BIOL 300 – awaiting discussion with instructor (i.e., attendance policy: a student with excused absences exceeding 20% cannot be dropped from the course, so the policy might need some tweaking).

9. Other Business

- Student Rules 7.3 and 10.1 – committee approved.
- Minimum Syllabus Requirements – committee approved.
  - Minor editorial changes requested.

- Approval Process for Shortened Courses – University Rule 11.03.00.M1
  - Minor editorial changes requested.