



Michigan State University - Office of the Registrar

Course Descriptions: Subject/Course Search Results

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Course: BE 101 Introduction to Biosystems Engineering

Semester: Fall of every year

Credits: Total Credits: 1 *Lab Hours:* 2

Prerequisite: (MTH 116 or concurrently) or (MTH 132 or concurrently) or (MTH 152H or concurrently) or (LB 118 or concurrently)

Description: Introduction to the profession of biosystems engineering. Case studies of engineering design problems with a biological component. Exploration of career opportunities and ethical framework for the profession.

Semester Alias: BE 130

Effective Dates: FALL 2013 - Open

[View all versions of this course](#)

Course: BE 230 Engineering Analysis of Biological Systems

Semester: Spring of every year

Credits: Total Credits: 3 *Lecture/Recitation/Discussion Hours:* 3

Prerequisite: (MTH 132 or MTH 152H or LB 118) and ((BS 162 or concurrently) or (BS 182H or concurrently) or (LB 144 or concurrently)) and (EGR 102 or concurrently)

Description: Biosystems modeling of growth and dynamic interactions. Conservation of mass, and sustainability. Steady-state and stability analysis. Ecological concepts. Life-cycle analysis. Design for environment.

Effective Dates: FALL 2013 - Open

[View all versions of this course](#)

Course: BE 332 Engineering Properties of Biological Materials

Semester: Fall of every year

Credits: Total Credits: 3 *Lecture/Recitation/Discussion Hours:* 3

Prerequisite: (BE 101 or concurrently) and (BS 161 or BS 181H or LB 145) and CE 221

Restrictions: Open to juniors or seniors in the Department of Biosystems and Agricultural Engineering.

Description: Physical and thermal properties of biological materials necessary for the design and analysis of processes and equipment in biosystems.

Effective Dates: SPRING 2015 - Open

[View all versions of this course](#)

Course: BE 334 Biosystems Engineering Laboratory Practice

Semester: Fall of every year

Credits: Total Credits: 3 *Lecture/Recitation/Discussion Hours:* 2 *Lab Hours:* 2

Prerequisite: (BE 101 or concurrently) and (BS 171 or BS 172) and PHY 184

Corequisite: BE 332 concurrently

Restrictions: Open to juniors or seniors in the Department of Biosystems and Agricultural Engineering.

Description: Sensors and instrumentation for measuring and analyzing properties of biological materials and systems.

Effective Dates: FALL 2013 - Open

[View all versions of this course](#)

Course: BE 350 Heat and Mass Transfer in Biosystems

Semester: Spring of every year

Credits: Total Credits: 3 *Lecture/Recitation/Discussion Hours:* 3

Prerequisite: (BE 101 or concurrently) and (MTH 235 or LB 220) and ((CE 321 or concurrently) or (CHE 311 or concurrently) or (ME 332 or concurrently)) and ((CEM 143 or concurrently) or (CEM 251 or concurrently) or (CEM 351 or concurrently))

Restrictions: Open to students in the College of Engineering.

Not open to students with credit in: ME 410

Description: Steady state and transient heat conduction. Radiation and convection heat transfer. Heat exchangers. Mass transfer application problems in biosystems engineering.

Effective Dates: SPRING 2016 - Open

[View all versions of this course](#)

Course: BE 351 Thermodynamics for Biological Engineering

Semester: Fall of every year

Credits: Total Credits: 3 *Lecture/Recitation/Discussion Hours:* 3

Prerequisite: (BE 101 or concurrently) and (MTH 235 or MTH 255H or LB 220) and (BS 161 or BS 181H or LB 145)

Restrictions: Open to juniors or seniors in the College of Engineering.

Not open to students with credit in: CHE 321 or ME 201

Description: Thermodynamics of biological systems. First and second laws of thermodynamics. Power and refrigeration cycles. Water relations and psychrometry. Chemical and phase equilibria.

Effective Dates: FALL 2013 - Open

[View all versions of this course](#)

Course: BE 360 Microbial Systems Engineering

Semester: Spring of every year

Credits: Total Credits: 3 *Lecture/Recitation/Discussion Hours: 3*

Prerequisite: (BE 230 or concurrently) and (MTH 235 or concurrently)

Restrictions: Open to juniors or seniors in the College of Engineering.

Description: Application of engineering and biological principles to the analysis of microbial systems. Kinetic analyses and modeling of microbial growth, survival, and inactivation for engineering applications.

Effective Dates: FALL 2013 - Open

[View all versions of this course](#)

Course: BE 385 Engineering Design and Optimization for Biological Systems

Semester: Spring of every year

Credits: Total Credits: 3 *Lecture/Recitation/Discussion Hours: 2 Lab Hours: 2*

Prerequisite: (BE 101 and (BE 230 or concurrently)) and (MTH 235 or MTH 255H or LB 220)

Restrictions: Open to juniors or seniors in the College of Engineering.

Description: Design and optimization techniques applied to engineering problems with biological constraints. Project management. Engineering economics. Linear programming.

Semester Alias: BE 431

Effective Dates: FALL 2013 - Open

[View all versions of this course](#)

Course: BE 402 Agricultural Climatology

Semester: Fall of even years

Credits: Total Credits: 3 *Lecture/Recitation/Discussion Hours: 3*

Prerequisite: MTH 110 or MTH 116

Restrictions: Not open to freshmen or sophomores.

Description: Relationships between climate and agriculture in resource assessment, water budget analysis, meteorological hazards, pests, crop-yield modeling, and impacts of global climate change.

Interdepartmental With: Geography

Administered By: Geography

Effective Dates: FALL 2014 - Open

[View all versions of this course](#)

Course: BE 418 Animal Agriculture and the Environment

Semester: Fall of every year

Credits: Total Credits: 3 *Lecture/Recitation/Discussion Hours: 2 Lab Hours: 2*

Prerequisite: (BS 161 or LB 145 or BS 181H) and (CEM 143 or CEM 251)

Recommended Background: CSS 210

Description: Comprehensive nutrient management plans (CNMP) for animal feeding operations. Trends in animal production, environmental issues, and diet formulation and their impact on manure production. Development of CNMP for a specific animal feeding operation.

Interdepartmental With: Animal Science

Administered By: Animal Science

Effective Dates: SUMMER 2016 - Open

[View all versions of this course](#)

Course: BE 419 Applications of Geographic Information Systems to Natural Resources Management

Semester: Spring of every year

Credits: Total Credits: 4 *Lecture/Recitation/Discussion Hours: 2 Lab Hours: 4*

Recommended Background: GEO 221

Description: Application of geographic information systems, remote sensing, and global positioning systems to integrated planning and management for fish, wildlife, and related resources.

Interdepartmental With: Fisheries and Wildlife, Forestry, Geography

Administered By: Fisheries and Wildlife

Effective Dates: FALL 2014 - Open

[View all versions of this course](#)

Course: BE 429 Fundamentals of Food Engineering

Semester: Spring of every year

Credits: Total Credits: 3 *Lecture/Recitation/Discussion Hours: 3*

Prerequisite: FSC 325 and MTH 124 and PHY 231

Recommended Background: FSC 211

Restrictions: Not open to students in the College of Engineering.

Description: Definition and measurement of food properties, thermodynamics, fluid mechanics, heat transfer, and mass transfer.

Semester Alias: BE 329

Interdepartmental With: Food Science

Administered By: Biosystems Engineering

Effective Dates: FALL 2013 - Open

[View all versions of this course](#)

Course: BE 443 Restoration Ecology

Semester: Spring of every year

Credits: Total Credits: 3 *Lecture/Recitation/Discussion Hours: 2 Lab Hours: 2*

Prerequisite: FOR 404 or PLB 441 or ZOL 355

Recommended Background: CSS 210 or BE 230

Description: Principles of ecological restoration of disturbed or damaged ecosystems. Design, implementation, and presentation of restoration plans. Field trips required.

Interdepartmental With: Fisheries and Wildlife, Plant Biology

Administered By: Fisheries and Wildlife

Effective Dates: FALL 2014 - SUMMER 2017

[View all versions of this course](#)

Course: BE 444 Biosensors for Medical Diagnostics

Semester: Spring of every year

Credits: Total Credits: 3 *Lecture/Recitation/Discussion Hours: 3*

Prerequisite: (BS 161 or BS 181H or LB 145) and (CEM 141 or CEM 151) and (ECE 302 or ECE 345 or BE 334 or CEM 333)

Restrictions: Open to juniors or seniors or graduate students in the College of Engineering.

Description: Biosensors, their components, properties, and associated electronics for applications in medical diagnostics.

Semester Alias: BE 445

Interdepartmental With: Biomedical Engineering

Administered By: Biosystems Engineering

Effective Dates: FALL 2015 - Open

[View all versions of this course](#)

Course: BE 449 Human Health Risk Analysis for Engineering Controls

Semester: Fall of every year

Credits: Total Credits: 3 *Lecture/Recitation/Discussion Hours: 2 Lab Hours: 2*

Prerequisite: (BE 385 and BE 360 and BE 332) or (CE 371 and CE 372 and ENE 487)

Restrictions: Open to juniors or seniors in the College of Engineering.

Description: Characterize human health risk from microbial stressors. Develop and evaluate engineering controls for risk management.

Effective Dates: FALL 2016 - Open

Course: BE 452 Watershed Concepts

Semester: Fall of every year, Spring of every year, Summer of every year

Credits: Total Credits: 3 *Lecture/Recitation/Discussion Hours: 3*

Prerequisite: CSUS 354

Recommended Background: Organic chemistry

Description: Watershed hydrology and management. The hydrologic cycle, water quality, aquatic ecosystems, and social systems. Laws and institutions for managing water resources.

Semester Alias: RD 452, ESA 452

Interdepartmental With: Community Sustainability, Forestry, Fisheries and Wildlife, Crop and Soil Sciences

Administered By: Community Sustainability

Effective Dates: FALL 2014 - Open

[View all versions of this course](#)

Course: BE 456 Electric Power and Control

Semester: Spring of every year

Credits: Total Credits: 3 *Lecture/Recitation/Discussion Hours: 2 Lab Hours: 2*

Prerequisite: BE 334

Description: Alternating current circuits, power distribution, electrical machines, protection, and programmable motor controllers. Design project related to food and agricultural industries.

Semester Alias: AE 356

Effective Dates: FALL 2013 - Open

[View all versions of this course](#)

Course: BE 457 Bioenergy Feedstock Systems Analysis

Semester: Fall of every year

Credits: Total Credits: 3 *Lecture/Recitation/Discussion Hours: 2 Lab Hours: 2*

Prerequisite: FOR 404 or approval of department

Restrictions: Open to juniors or seniors.

<p>Description: Equipment used for harvesting, pre-processing, and transporting woody biomass from natural forests and energy wood plantations; cost control and system optimization in woody biomass supply chain; environmental impact of woody biomass recovery.</p> <p>Interdepartmental With: Forestry</p> <p>Administered By: Biosystems Engineering</p> <p>Effective Dates: FALL 2013 - Open</p>
<p>Course: BE 461 Seminar in Plant, Animal and Microbial Biotechnology</p> <p>Semester: Spring of every year</p> <p>Credits: Total Credits: 1 <i>Lecture/Recitation/Discussion Hours: 1</i></p> <p>Prerequisite: (ANS 425 or concurrently) or (BE 360 or concurrently) or (CSS 451 or concurrently) or (MMG 445 or concurrently)</p> <p>Description: Current applications of plant, animal and microbial biotechnology in agriculture and related industries. Technologies under development and factors associated with moving from laboratory to product development. Field trips required.</p> <p>Interdepartmental With: Horticulture, Animal Science, Crop and Soil Sciences</p> <p>Administered By: Horticulture</p> <p>Effective Dates: SPRING 2016 - Open</p>
<p>Course: BE 467 BioEnergy Feedstock Production</p> <p>Semester: Fall of every year</p> <p>Credits: Total Credits: 3 <i>Lecture/Recitation/Discussion Hours: 3</i></p> <p>Prerequisite: MTH 103 or MTH 116 or MTH 124 or MTH 132 or LB 118 or MTH 152H or MTH 133 or MTH 153H or LB 119</p> <p>Recommended Background: CSS 101 and CSS 210</p> <p>Description: Agronomic, economic, technological, and environmental principles involved in bioenergy feedstock production. Cultivation, harvest, transportation, and storage of agricultural and forest biomass.</p> <p>Interdepartmental With: Crop and Soil Sciences, Forestry</p> <p>Administered By: Crop and Soil Sciences</p> <p>Effective Dates: SPRING 2014 - Open</p> <p style="text-align: center;">View all versions of this course</p>
<p>Course: BE 468 Biomass Conversion Engineering</p> <p>Semester: Fall of every year</p> <p>Credits: Total Credits: 3 <i>Lecture/Recitation/Discussion Hours: 3</i></p> <p>Prerequisite: (BE 351 or CHE 321) and (BE 360 or CHE 431)</p> <p>Description: Physicochemical and biological pretreatment. Biomass conversion to alcohols, biodiesel, bio-oil, syngas, and other value-added products using advanced biological, chemical, and thermochemical treatments.</p> <p>Interdepartmental With: Chemical Engineering</p> <p>Administered By: Chemical Engineering</p> <p>Effective Dates: FALL 2014 - Open</p> <p style="text-align: center;">View all versions of this course</p>
<p>Course: BE 469 Sustainable Bioenergy Systems</p> <p>Semester: Spring of every year</p> <p>Credits: Total Credits: 3 <i>Lecture/Recitation/Discussion Hours: 3</i></p> <p>Prerequisite: BE 230 or CHE 201</p> <p>Recommended Background: CSS 467 and CHE 468</p> <p>Restrictions: Open to juniors or seniors in the College of Engineering.</p> <p>Description: Biorefinery analysis and system design. Life cycle assessment to evaluate sustainability of bioenergy systems. Current policy regulating the bioeconomy and system economics. Product commercialization.</p> <p>Interdepartmental With: Chemical Engineering</p> <p>Administered By: Biosystems Engineering</p> <p>Effective Dates: FALL 2013 - Open</p> <p style="text-align: center;">View all versions of this course</p>
<p>Course: BE 475 International Studies in Biosystems Engineering</p> <p>Semester: Fall of every year, Spring of every year, Summer of every year</p> <p>Credits: Variable from 1 to 6</p> <p>Reenrollment Information: A student may earn a maximum of 6 credits in all enrollments for this course.</p> <p>Restrictions: Approval of department; application required.</p> <p>Description: Study abroad emphasizing biosystems and agricultural engineering issues affecting agriculture and natural resources in world, national, and local communities.</p> <p>Effective Dates: FALL 2013 - Open</p> <p style="text-align: center;">View all versions of this course</p>
<p>Course: BE 477 Food Engineering: Fluids</p> <p>Semester: Fall of every year</p> <p>Credits: Total Credits: 3 <i>Lecture/Recitation/Discussion Hours: 2 Lab Hours: 2</i></p> <p>Prerequisite: BE 350 and BE 351 and BE 360</p>

Description: Unit operations, process engineering, equipment, and industrial practices of the food industry. Manufactured dairy products: thermal processing, pipeline design, heat exchange, evaporation, dehydration, aseptic processing, membrane separation, cleaning, and sanitation.

Semester Alias: FE 465

Interdepartmental With: Food Science

Administered By: Biosystems Engineering

Effective Dates: FALL 2013 - Open

[View all versions of this course](#)

Course: **BE 478 Food Engineering: Solids**

Semester: Spring of every year

Credits: Total Credits: 3 *Lecture/Recitation/Discussion Hours: 2 Lab Hours: 2*

Prerequisite: BE 350 and BE 351 and BE 360

Description: Analysis and design of unit operations and complete systems for handling, processing, and manufacturing bulk, granular, and solid food products. Material variability and microbial, chemical, and physical hazards.

Effective Dates: FALL 2013 - Open

[View all versions of this course](#)

Course: **BE 481 Water Resources Systems Analysis and Modeling**

Semester: Fall of every year

Credits: Total Credits: 3 *Lecture/Recitation/Discussion Hours: 2 Lab Hours: 2*

Prerequisite: CE 321 or CHE 311 or ME 332

Restrictions: Open to juniors or seniors in the College of Engineering.

Description: Hydrology of natural systems. Quantifying runoff, infiltration, and evapotranspiration. Geospatial data collection at watershed scale. Geographical information system application in hydrology and ecosystems engineering. Watershed modeling and applications in engineering design and decision-making.

Semester Alias: AE 481

Effective Dates: FALL 2013 - Open

[View all versions of this course](#)

Course: **BE 482 Diffuse-Source Pollution Engineering**

Semester: Spring of every year

Credits: Total Credits: 3 *Lecture/Recitation/Discussion Hours: 2 Lab Hours: 2*

Prerequisite: (BE 350 or ENE 483) and (BE 360 or ENE 487)

Restrictions: Open to juniors or seniors in the College of Engineering.

Description: Identification, estimation, and control of diffuse source pollution from agricultural and urban sources. Analysis of diffuse source pollutants in biological systems. Engineering design of practices and structures to prevent, mitigate, and treat diffuse source pollution, including low impact development (LID) strategies.

Effective Dates: SPRING 2016 - Open

[View all versions of this course](#)

Course: **BE 485 Biosystems Design Techniques**

Semester: Fall of every year

Credits: Total Credits: 3 *Lecture/Recitation/Discussion Hours: 2 Lab Hours: 2*

Prerequisite: BE 332 and BE 334 and BE 350 and BE 351 and BE 360 and BE 385 or approval of department

Restrictions: Open to juniors or seniors in the Biosystems Engineering major.

Description: Engineering design process. Problem identification, analysis, design, modeling, materials, cost estimation, and final specifications. Safety, environmental, and ethical considerations.

Semester Alias: BE 486

Effective Dates: FALL 2013 - Open

[View all versions of this course](#)

Course: **BE 487 Biosystems Design Project (W)**

Semester: Spring of every year

Credits: Total Credits: 3 *Lab Hours: 6*

Prerequisite: (BE 485) and completion of Tier I Writing requirement

Restrictions: Open to seniors in Biosystems Engineering major.

Description: Individual or team design project selected in BE 485. Information expansion, development of alternatives, and evaluation, selection, and completion of a design project.

Semester Alias: AE 488

Effective Dates: FALL 2013 - Open

[View all versions of this course](#)

Course: **BE 490 Independent Study**

Semester: Fall of every year, Spring of every year, Summer of every year

Credits: Variable from 1 to 5

Reenrollment Information: A student may earn a maximum of 5 credits in all enrollments for this course.

Restrictions: Approval of department; application required.

Description: Supervised individual student research and study in biosystems engineering.

Effective Dates: FALL 2013 - Open

[View all versions of this course](#)

Course: BE 491 Special Topics in Biosystems Engineering

Semester: Fall of every year, Spring of every year, Summer of every year

Credits: Variable from 1 to 4

Reenrollment Information: A student may earn a maximum of 12 credits in all enrollments for this course.

Restrictions: Approval of department.

Description: Special topics in biosystems engineering.

Effective Dates: FALL 2013 - Open

[View all versions of this course](#)

Course: BE 815 Experimentation and Instrumentation in Biosystems Engineering

Semester: Spring of every year

Credits: Total Credits: 3 *Lecture/Recitation/Discussion Hours: 2 Lab Hours: 2*

Restrictions: Open to graduate students in the College of Agriculture and Natural Resources or in the College of Engineering.

Description: Establish generalized experimental study planning, measurement, data collection and execution skills, which are applicable to individual topics/projects/areas in biological systems.

Semester Alias: AE 815

Effective Dates: FALL 2014 - Open

[View all versions of this course](#)

Course: BE 820 Research Methods in Biosystems Engineering

Semester: Fall of every year

Credits: Total Credits: 1 *Lecture/Recitation/Discussion Hours: 1*

Restrictions: Open only to graduate students in the College of Agriculture and Natural Resources or College of Engineering.

Description: Procedures and methods for designing and executing research projects.

Semester Alias: AE 820

Effective Dates: SUMMER 1997 - Open

Course: BE 835 Modeling Methods in Biosystems Engineering

Semester: Fall of every year

Credits: Total Credits: 3 *Lecture/Recitation/Discussion Hours: 2 Lab Hours: 2*

Recommended Background: Undergraduate degree in an engineering discipline, and one year of biological science.

Restrictions: Open to graduate students in the College of Agriculture and Natural Resources or in the College of Engineering.

Description: Establish generalized model planning and execution skills, which is applicable to individual topics/projects/areas in biological systems.

Effective Dates: FALL 2014 - Open

[View all versions of this course](#)

Course: BE 844 Biosensor Principles and Applications

Semester: Spring of every year

Credits: Total Credits: 3 *Lecture/Recitation/Discussion Hours: 3*

Recommended Background: Knowledge of biology, chemistry, and electronics.

Description: Nanotechnology-based biosensors, their components, desirable properties, and associated electronics. Applications related to healthcare, biodefense, food and water safety, agriculture, bio-production, and environment. Multidisciplinary interactions necessary for biosensor development.

Semester Alias: BE 845

Interdepartmental With: Biomedical Engineering

Administered By: Biosystems Engineering

Effective Dates: FALL 2015 - Open

[View all versions of this course](#)

Course: BE 849 Quantitative Human Health Risk Modeling and Analysis for Microbial Stressors

Semester: Fall of even years

Credits: Total Credits: 3 *Lecture/Recitation/Discussion Hours: 2 Lab Hours: 2*

Prerequisite: STT 421 or STT 464 or (STT 814 or concurrently) or approval of department

Recommended Background: probability theory, mathematical modeling covered in the engineering and quantitative sciences. Background in toxicology, microbiology, food safety, and/or public health.

Description: Characterization of human health risk from exposures to environmental stressors. Development of empirical and statistical models for health effects and exposure analysis. Probabilistic risk characterization, uncertainty and sensitivity analysis. Problem-based critical evaluation of risk-based environmental decisions.

Effective Dates: SPRING 2016 - Open

Course: BE 869 Life Cycle Assessment for Bioenergy and Bioproduct Systems

Semester: Spring of every year

Credits: Total Credits: 3 *Lecture/Recitation/Discussion Hours: 3*

Restrictions: Open to graduate students in the College of Engineering or in the Department of Biosystems and Agricultural Engineering or approval of department.

<p>Not open to students with credit in: BE 469</p> <p>Description: Life cycle assessment to evaluate the environmental impacts of biological and chemical conversion processes. Biomass supply chain economics and technoeconomics for biomass conversion. Current policy considerations impacting the adoption of bioenergy and bioproduct systems.</p> <p>Interdepartmental With: Chemical Engineering</p> <p>Administered By: Biosystems Engineering</p> <p>Effective Dates: SPRING 2016 - Open</p>
<p>Course: BE 881 Ecohydrology</p> <p>Semester: Fall of odd years</p> <p>Credits: Total Credits: 3 <i>Lecture/Recitation/Discussion Hours: 3</i></p> <p>Recommended Background: BE 481 or ENE 421 or FW 454</p> <p>Description: Identify and quantify the critical linkages between ecological processes and the hydrological cycle.</p> <p>Effective Dates: FALL 2013 - Open</p>
<p>Course: BE 882 Advanced Topics in Ecological Engineering</p> <p>Semester: Fall of every year</p> <p>Credits: Total Credits: 3 <i>Lecture/Recitation/Discussion Hours: 3</i></p> <p>Recommended Background: Undergraduate course or equivalent experience on biological and chemical process design and hydraulics.</p> <p>Description: Rural and suburban water quality challenges. Science and design of rural and suburban water treatment and resource recovery systems.</p> <p>Effective Dates: FALL 2013 - Open</p>
<p>Course: BE 890 Special Problems</p> <p>Semester: Fall of every year, Spring of every year, Summer of every year</p> <p>Credits: Variable from 1 to 3</p> <p>Reenrollment Information: A student may earn a maximum of 6 credits in all enrollments for this course.</p> <p>Restrictions: Approval of department; application required.</p> <p>Description: Individual study in biosystems engineering.</p> <p>Semester Alias: AE 890</p> <p>Effective Dates: SUMMER 1997 - Open</p>
<p>Course: BE 891 Advanced Topics in Biosystems Engineering</p> <p>Semester: Fall of every year, Spring of every year, Summer of every year</p> <p>Credits: Variable from 1 to 3</p> <p>Reenrollment Information: A student may earn a maximum of 6 credits in all enrollments for this course.</p> <p>Restrictions: Open only to seniors and graduate students.</p> <p>Description: Biosystems engineering topics not covered in regular courses.</p> <p>Semester Alias: AE 891</p> <p>Effective Dates: SUMMER 2005 - Open</p> <p style="text-align: center;">View all versions of this course</p>
<p>Course: BE 892 Biosystems Engineering Seminar</p> <p>Semester: Spring of every year</p> <p>Credits: Total Credits: 1 <i>Lecture/Recitation/Discussion Hours: 1</i></p> <p>Restrictions: Open only to graduate students in the College of Agriculture and Natural Resources or College of Engineering.</p> <p>Description: Current topics in biosystems engineering.</p> <p>Semester Alias: AE 892</p> <p>Effective Dates: SUMMER 1997 - Open</p>
<p>Course: BE 899 Master's Thesis Research</p> <p>Semester: Fall of every year, Spring of every year, Summer of every year</p> <p>Credits: Variable from 1 to 10</p> <p>Reenrollment Information: A student may earn a maximum of 99 credits in all enrollments for this course.</p> <p>Restrictions: Open only to master's students in the Biosystems Engineering major.</p> <p>Description: Master's thesis research.</p> <p>Semester Alias: AE 899</p> <p>Effective Dates: SUMMER 1997 - Open</p>
<p>Course: BE 999 Doctoral Dissertation Research</p> <p>Semester: Fall of every year, Spring of every year, Summer of every year</p> <p>Credits: Variable from 1 to 24</p> <p>Reenrollment Information: A student may earn a maximum of 36 credits in all enrollments for this course.</p> <p>Restrictions: Open to doctoral students in the Biosystems Engineering Major.</p> <p>Description: Doctoral dissertation research.</p> <p>Semester Alias: AE 999</p> <p>Effective Dates: SUMMER 2014 - Open</p>