

December 3rd 2017

Subject: Revision to Natural Resource and Environmental Science (NRES) analytical skill development area (ASDA) and environmental systems emphasis areas (ESEA)

Dear Dr. Grabau,

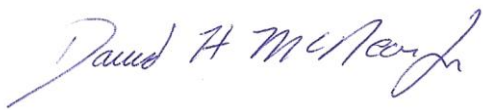
The NRES steering committee in several meetings over the past year and a half have reviewed the course offerings for the Analytical Skill Development Area (ASDA) and Environmental Systems Emphasis Areas (ESEA) and in the process added and/or removed course options. Previous review of these course options was performed in 2014. Since 2014 several courses are no longer offered and several new courses have come into existence. For example, the B.S Forestry program underwent a program change that resulted in several courses being added or changed that have a direct impact on our ESEA and ASD offerings. There were no changes made to the UK Core, College, Pre-major, or major requirements for the degree and no change to the number of required credits to attain the B.S. NRES degree.

Since 2014, the NRES Director of Undergraduate Studies has had the approval of the NRES steering committee to substitute courses from other departments or colleges to satisfy our programs ASDA and ESEA requirements. We are not requiring our students to take any specific course from those listed under each ASDA or ESEA, but instead we only list courses as options. The students must choose three courses from each emphasis area (i.e. 9 credits from ASDA, 9 credits from ESEA) to complete the requirement. The idea behind this framework is to help our NRES students develop basic analytical skills (ASD) in an area of their choosing that they can then apply to an environmental system (ESEA) that suits their long-term career goals and interests. Because NRES has operated in this fashion (i.e. allowing course substitutions and needing no prior program approval for listing courses outside of our program) there should be no significant change in demand from these programs resulting from this requested change.

I have conferred with the Chairs from the Departments offering the courses we are proposing to add (BAE, CE, COM, DHN, EDL, EES, ENT, FNR, GEO, LA, PLS, SOC, ENG) and they have

discussed and received approval from their faculty. You will find their letters of support attached to the faculty senate UG curriculum change application along with a summary of the courses currently offered from each of the departments and those we are proposing to add. I have also included below a document for your information that details the proposed changes organized by each of the ASDA and ESEA's. Listed are the courses that are currently offered under each of the ESEA and ASDA options, courses we are removing, as well as the course additions being proposed. Note that the ESEA and ASDA descriptions are not included in the bulletin and are therefore not subject to approval.

Sincerely,

A handwritten signature in blue ink that reads "David H. McNeely". The signature is written in a cursive style with a large, sweeping initial "D".

NRES Director of Undergraduate Studies

Key: In the proposed change column **BLUE** indicates current courses to keep, **RED** indicates courses being removed and **GREEN** indicates courses being added

Analytical Skill Development Area (ASDA)

CURRENT	PROPOSED CHANGE
Economic and Policy Analysis	<i>No Change</i>
<p>Economic and Policy Analysis – The economic and policy analysis skill development area will provide students with the theoretical and analytical tools necessary to evaluate the economic and social effects of resource and environmental issues. The policy courses will help students understand how environmental policy is made, the public agencies that manage resources, and how policies are evaluated for impact on humans and the environment.</p> <ul style="list-style-type: none"> • AEC 309 International Agriculture, World Food Needs, and U.S. Trade in Agricultural Products • AEC 483 Regional Economics • AEC 532 Agriculture and Food Policy • AEC/NRE 545 Resource and Environmental Economics • CLD/SOC 360 Environmental Sociology • FOR 320 Forest Valuation and Economics • FOR 400 Human Dimensions of Forestry and Natural Resources • GEO 235 Environmental Management and Policy • GEO 455 Economic Geography 	<p><i>No change to description</i></p> <ul style="list-style-type: none"> • AEC 309 International Agriculture, World Food Needs, and U.S. Trade in Agricultural Products • AEC 483 Regional Economics • AEC 532 Agriculture and Food Policy • AEC/NRE 545 Resource and Environmental Economics • CLD/SOC 360 Environmental Sociology • FOR 320 Forest Valuation and Economics • FOR 400 Human Dimensions of Forestry and Natural Resources • GEO 235 Environmental Management and Policy • GEO 455 Economic Geography • ECO473G Economic Development • GEO 316 Environment and Development • GEO 431 Political Ecology
CURRENT	PROPOSED CHANGE
Field and Laboratory Analysis of Ecosystems	<i>No change</i>
<p>Students will learn the theory and application of sample data collection and techniques, field and laboratory analysis, statistical analysis, and data interpretation required to evaluate the quality of water, soil, and ecosystem resources. This analytical skill development area is geared towards students pursuing careers as environmental science and protection scientists/technicians and forest and conservation scientists/technicians.</p> <ul style="list-style-type: none"> • BIO/NRE 420G Taxonomy of Vascular Plants • ENT/BIO 300 General Entomology • ENT/FOR 402 Forest Entomology • FOR 219 Dendrology • PLS 396 Soil Judging 	<p><i>No change to description</i></p> <ul style="list-style-type: none"> • BIO/NRE 420G Taxonomy of Vascular Plants • ENT/BIO 300 General Entomology • ENT502/FOR 502 Forest Entomology • FOR 219 Dendrology • PLS 396 Soil Judging

<ul style="list-style-type: none"> • PLS 573 Soil Morphology and Classification • FOR 250 Statistics and Measurements I • BIO 452G Laboratory in Ecology • PLS 597 Special Topics in Plant and Soil Science: Environmental Sampling and Analysis 	<ul style="list-style-type: none"> • PLS 573 Soil Morphology and Classification • PLS 581 Chemical Analysis of Soil & Plants • FOR 250 Statistics and Measurements I • BIO 452G Laboratory in Ecology • PLS 597 Special Topics in Plant and Soil Science: Environmental Sampling and Analysis • BIO 325 Ecology • BIO 351 Plant Kingdom (Lecture and Lab) • BIO 559 Ornithology • EES 230 Fundamentals of Geology 1 • FOR 221 Winter Dendrology • FOR 510 Herpetology • FOR 520 Mammals of the Eastern United States • PLS 468G Soil Use and Management • PLS 514 Grass Taxonomy and ID • PLS 581 Methods of Plant and Soil Analysis
CURRENT	PROPOSED CHANGE
Geospatial Analysis	<i>No change</i>
<p>Geospatial technologies are often used in conjunction with traditional natural resource and environmental scientist job requirements. This development area will provide students with enhanced skills beyond the major requirements in the use of geospatial software, approaches, and products. Students will learn the theory and application required to address a variety of environmental conditions. This analytical skill development area is geared towards students wishing to pursue careers that depend on extensively applying geospatial technologies to natural resources and environmental science issues or advanced study in geospatial science.</p> <ul style="list-style-type: none"> • BAE 538 Applications for Water Resources • FOR 200 Basics of Geospatial Technology • GEO 309 Digital Geographic Data: Sources, Characteristics, Problems, and Uses • GEO 409 Geographic Information Systems and Science: Fundamentals • GEO 415 Map Interpretation • LA 556/NRE 556 Advanced Geographic Information Systems (GIS) and Landscape Analysis • FOR 330 GIS and Spatial Analysis 	<p>No changes to description</p> <ul style="list-style-type: none"> • BAE 538 GIS Applications for Water Resources • FOR 200 Basics of Geospatial Technology • GEO 309 Digital Geographic Data: Sources, Characteristics, Problems, and Uses • GEO 409 Geographic Information Systems and Science: Fundamentals • GEO 415 Map Interpretation • LA 556/NRE 556 Advanced Geographic Information Systems (GIS) and Landscape Analysis • FOR 330 GIS and Spatial Analysis • GEO 305 Elements of Cartography • GEO 419 Introduction to Remote Sensing • GEO 509 Workshop in Geospatial Technologies • FOR 560 Landscape Ecology •

CURRENT	PROPOSED CHANGE
<p data-bbox="203 233 513 260">Environmental Education</p> <p data-bbox="203 268 786 478">The environmental education area will introduce you to the concepts of Environmental Education (in NRE 390) and then provide you with the background necessary to apply your environmental systems knowledge in an educational (formal and non-formal) setting.</p> <ul data-bbox="251 556 773 850" style="list-style-type: none"> • NRE 390 Special Topics: Environmental Education • NRE 390 Special Topics: Environmental Communication • CLD 230 Intrapersonal Leadership • CLD/SOC 360 Environmental Sociology • AED/FCS 583 Designing Curriculum and Assessment in Career and Technical Education • EDP 202 Human Development and Learning 	<p data-bbox="821 233 1382 260">Environmental Education and Communication</p> <p data-bbox="821 268 1393 548">The environmental education and communication area will introduce you to the concepts of Environmental Education (in NRE 390) and then provide you with the background necessary to apply your environmental systems knowledge in an educational (formal and non-formal) setting or through other avenues of communication.</p> <ul data-bbox="870 556 1393 1117" style="list-style-type: none"> • *NRE 390 Special Topics: Environmental Education • *NRE 390 Special Topics: Environmental Communication • CLD 230 Intrapersonal Leadership • CLD/SOC 360 Environmental Sociology • AED/FCS 583 Designing Curriculum and Assessment in Career and Technical Education • EDP 202 Human Development and Learning • COM 315 Understanding Workplace Communication • ECO 499 Special Topics: Environmental Justice • COM 281 Communication in Small Groups • COM 287 Persuasive Speaking • CLD/EDL 402 Principles Of Leadership • CLD/EDL 403 Leadership and Communication • ENG 425 Environmental Writing <p data-bbox="821 1121 1360 1203"><i>* New course proposals for NRE390 Enviro. Comm. and Enviro. Ed (to be NRE360, NRE365, respectively) have proceeded this curriculum change request.</i></p>

Environmental Systems Emphasis Areas (ESEA)

CURRENT	PROPOSED CHANGE
<p data-bbox="203 1369 464 1396">Conservation Biology</p> <p data-bbox="203 1404 792 1894">The conservation biology emphasis area will provide students with knowledge of the ecological underpinnings of conservation biology. Depending on the courses chosen, students will: (1) learn to identify trees and other plants and develop a taxonomic framework for plant identification; (2) develop an understanding of plant community ecology; (3) develop an understanding of ecosystem pattern and process; (4) gain an introduction to the vegetation, flora and forests of Kentucky and surrounding states. Students who choose courses in this environmental systems emphasis area may be qualified to pursue careers as naturalists, natural</p>	<p data-bbox="821 1369 954 1396"><i>No change</i></p> <p data-bbox="821 1404 1404 1894">The conservation biology emphasis area will provide students with knowledge of the ecological underpinnings and organismal biology of conservation biology. Depending on the courses chosen, students will: (1) gain a solid foundation in field botany by learning tree identification and by developing a taxonomic framework for plant identification; (2) become familiar with the mammals, birds, reptiles and amphibians of Kentucky and surrounding states; (3) gain an introduction to the vegetation, flora and forests of Kentucky and surrounding states; and (4) develop an understanding of ecosystem pattern and process. Students who choose</p>

<p>resource managers, natural resource educators, or pursue graduate education in ecology or botany.</p> <ul style="list-style-type: none"> • BIO/PLS 210 The Life Processes of Plants • BIO 325 Introductory Ecology • BIO 375 Behavioral Ecology and Sociobiology • BIO/NRE 420G Taxonomy of Vascular Plants • BIO/GEO 530 Biogeography and Conservation • FOR 219 Dendrology • FOR 370 Wildlife Biology and Management 	<p>courses in this environmental systems emphasis area may be qualified to pursue careers with organizations dedicated to the preservation, conservation, and management of habitat, and related rare species preservation. Other opportunities include nature preserve manager, natural resource educator, naturalist, biological inventories and assessment, and environmental consulting. This emphasis area also prepares students for graduate studies in ecology, evolutionary biology, zoology, or botany.</p> <ul style="list-style-type: none"> • BIO/PLS 210 The Life Processes of Plants • BIO 325 Introductory Ecology • BIO 375 Behavioral Ecology and Sociobiology • BIO/NRE 420G Taxonomy of Vascular Plants • BIO/GEO 530 Biogeography and Conservation • FOR 219 Dendrology • FOR 370 Wildlife Biology and Management • BIO 303 Intro to Evolution • ABT/ENT/FOR/BIO 461 Intro to Population Genetics • NRE/PLS 455G Wetland Delineation • FOR/GEO 570 Landscape Ecology for Natural Resources • FOR510 Herpetology • FOR520 Mammals of the Eastern United States • FOR530 Freshwater Ecology • FOR 540 Urban Ecology
CURRENT	PROPOSED CHANGE
Forestry	<i>No change</i>
<p>Current: The forestry emphasis area will provide students with an understanding of dendrology and silviculture. In dendrology, students will learn basic concepts of botany related to woody species and their use, along with basic soil and site characteristics used in the identification of trees and forest vegetation. In silviculture, students will learn the approaches for ecologically based manipulation of forests to achieve a desired management objective. Students who choose this emphasis area may be qualified to pursue careers in natural resource management. <i>[Note: Students with a B.S. in Forestry from a Society of American Foresters (SAF) accredited forestry program may be more competitive for certain</i></p>	<p>Proposed changes: The forestry emphasis area provides students with knowledge in dendrology (the study of trees) and silviculture (the cultivation, growing, and management of trees). In dendrology students will learn basic concepts of botany of woody species, and their use, along with basic soil and site characteristics used in the identification of trees and forest vegetation. In silviculture students will learn the basics of ecologically-based management of forest ecosystems to achieve a desired objective. Students who choose this emphasis area may be qualified to pursue careers in natural resource management with an emphasis on forest systems. <i>[Note: Students with a B.S. in Forestry from a Society of American Foresters (SAF) accredited</i></p>

<p><i>forestry jobs. The NRES program is not an SAF accredited program.]</i></p> <ul style="list-style-type: none"> • FOR 219 Dendrology • FOR 350 Silviculture • FOR 320 Forest Valuation and Economics • FOR 400 Human Dimensions of Forestry and Natural Resources • FOR 402 Forest Entomology • FOR 425 Forest Management 	<p><i>forestry program may be more competitive for certain forestry jobs. The NRES program is not an SAF accredited program.]</i></p> <ul style="list-style-type: none"> • FOR 219 Dendrology* • FOR 350 Silviculture* • FOR 320 Forest Valuation and Economics • FOR 400 Human Dimensions of Forestry and Natural Resources • FOR 402 Forest Entomology • FOR 502/ENT502 Forest Entomology • FOR 425 Forest Management • FOR 200 Basics of Geospatial Technology • FOR 221 Winter Dendrology • FOR 255 Forest Fire • FOR 260 Forest Products and Wood Science <p><i>*students are strongly encouraged to take these key courses.</i></p>
CURRENT	PROPOSED CHANGE
<p>Earth System Sciences</p>	<p><i>No change</i></p>
<p>The GP emphasis area will provide context for understanding the processes that operate within and at the interface between the lithosphere, biosphere/hydrosphere, and atmosphere, i.e., the environments in which bedrock, soil, water, air and organisms interact physically and chemically. Students pursuing the GP area of emphasis may choose to pursue the minor in Geology, which can be partly satisfied with NRES required courses EES 220 and PLS 366, plus EES 230 and 235, and an additional 5 credits at the 300 level or higher in EES or a related field. All courses listed below at the 300+ level would count toward the minor. Students who take EES 385 among their NRES major requirements may also count this course toward the minor.</p> <ul style="list-style-type: none"> • EES 210 Habitable Planet • EES 230 Fundamentals of Geology I • EES 235 Fundamentals of Geology II • EES 323 Geology Field Camp • EES 360 Mineralogy • EES 450 Sedimentary Geology • EES 530 Low Temperature Geochemistry • EES 550 Fundamentals of Geophysics • EES 585 Hydrogeology • GEO 331 Global Environmental Change • GEO 351 Physical Landscapes • EES 420 Structural Geology 	<p>The Earth Systems Science emphasis area will provide context for understanding the processes that operate within and at the interface between Earth's lithosphere, biosphere, hydrosphere, and atmosphere, i.e., the environments in which bedrock, soil, organisms, water, and air interact. Students pursuing this area of emphasis may choose to pursue the minor in Geological Sciences, which can be partly satisfied with NRES required courses EES 220 and PLS 366, plus EES 230 and 235, and an additional 5 credits at the 300 level or higher in Earth and Environmental Sciences (EES) or a related field. All courses listed below at the 300+ level would count toward the minor. Students who take EES 385 among their NRES major requirements may also count this course toward the minor.</p> <ul style="list-style-type: none"> • EES 210 Habitable Planet • EES 230 Fundamentals of Geology I • EES 235 Fundamentals of Geology II • EES 323 Geology Field Camp • EES 360 Mineralogy • EES 450 Sedimentary Geology • EES 530 Low Temperature Geochemistry • EES 550 Fundamentals of Geophysics • EES 585 Hydrogeology • GEO 331 Global Environmental Change • GEO 351 Physical Landscapes • EES 420 Structural Geology

<ul style="list-style-type: none"> • EES 461 Igneous and Metamorphic Petrology • GEO 451G Fluvial Forms and Processes • PLS 450G Biogeochemistry 	<ul style="list-style-type: none"> • EES 461 Igneous and Metamorphic Petrology • GEO 451G Fluvial Forms and Processes • PLS 450G Biogeochemistry • EES 345 Paleoclimatology: The Science
CURRENT	PROPOSED CHANGE
Global Sustainable Food Systems	<i>No change</i>
<p>Students who choose this area will be exposed to basic principles in sustainable agriculture, issues in global food systems, and the ecology of agricultural systems, emphasizing the overlap and complementarities between systems emphasized through NRES major requirements and food production systems. Some students choosing this ESEA may want to obtain the minor in Sustainable Agriculture, which requires the selection of SAG 101 (not listed below because all 9 credits must be 200 or above), in addition to SAG 201 and 386.</p> <ul style="list-style-type: none"> • SAG 201 Cultural Perspectives on Sustainability • SAG/PLS 386 Plant production systems • CLD/SOC 360 Environmental Sociology • ENT 310 Insect Pests of Field Crops • ENT 300 General Entomology • AEC 309 International Agriculture, World Food Needs and U.S. Trade in Agricultural Products • PLS 404 Integrated Weed Management • SAG 390 Agroecology • ECO 410 Current Issues in Economics: World Food Economics 	<p>Students who choose this area will be exposed to basic principles in sustainable agriculture, issues in global food systems (e.g. food security) and the ecology of agricultural systems, emphasizing the overlap and complementarities between systems emphasized through NRES major requirements and food production systems. Some students choosing this ESEA may want to obtain the minor in Sustainable Agriculture, which requires the selection of SAG 101 (not listed below because all 9 credits must be 200 or above), in addition to SAG 201 and 386.</p> <ul style="list-style-type: none"> • SAG 201 Cultural Perspectives on Sustainability • SAG/PLS 386 Plant production systems • CLD/SOC 360 Environmental Sociology • ENT 310 Insect Pests of Field Crops • ENT/BIO 300 General Entomology • AEC 309 International Agriculture, World Food Needs and U.S. Trade in Agricultural Products • PLS 404 Integrated Weed Management • SAG 390 Agroecology • ECO 410 Current Issues in Economics: World Food Economics • AEC 532 Agriculture and Food Policy • DHN 318 Hunger, Food Behavior, & the Environment
CURRENT	PROPOSED CHANGE
Human Dimensions and Natural Resource Planning	<i>No change</i>
<p>The human dimensions and natural resource planning emphasis area will provide students with an understanding of the interaction between society and natural systems and provide students with the skills and knowledge for tomorrow's effective conservation leaders. This emphasis area does this by building upon the core NRES curriculum with coursework and internship experience focused on land planning, legal aspects of land and water, landscape</p>	<i>No change</i>

<p>ecology, biogeography, and geospatial technologies. Private foundations and government entities are funding land conservation efforts, and increasingly, real estate developers and their consultants are incorporating land conservation into their development projects. There is a professional community working in a variety of capacities for conservation organizations globally and there is the opportunity for advanced study in a variety of graduate programs.</p> <ul style="list-style-type: none"> • BIO/GEO 530 Biogeography and Conservation • CLD/SOC 340 Community Interaction • CLD/SOC 360 Environmental Sociology • CLD/SOC 420 Sociology of Communities • CLD/SOC 440 Community Processes and Communication • FOR 400 Human Dimensions of Forestry and Natural Resources • GEO 285 Introduction to Planning • GEO 485G Urban Planning and Sustainability • GEO 490G American Landscapes • GEO 531 Landscape Ecology • LA 858 Regional Land Use Planning Systems • LA 869 Advanced Regional Land Use Planning Applications • ENS 400 Senior Seminar in Environmental Studies • FOR 470 Interdependent Natural Resource Issues – Analysis and Solutions 	<ul style="list-style-type: none"> • BIO/GEO 530 Biogeography and Conservation • CLD/SOC 340 Community Interaction • CLD/SOC 360 Environmental Sociology • CLD/SOC 420 Sociology of Communities • CLD/SOC 440 Community Processes and Communication • FOR 400 Human Dimensions of Forestry and Natural Resources • GEO 285 Introduction to Planning • GEO 485G Urban Planning and Sustainability • GEO 490G American Landscapes • GEO 531 Landscape Ecology • LA 858 Regional Land Use Planning Systems • LA 869 Advanced Regional Land Use Planning Applications • ENS 400 Senior Seminar in Environmental Studies • FOR 470 Interdependent Natural Resource Issues – Analysis and Solutions • CLD/SOC 517 Rural Sociology • GEO 220 US Cities (UK Core) • GEO 222 Cities of the World (UK Core) • GEO 422 Urban Geography • GEO/BIO 530 Biogeography and Conservation • LA 308 Regional Land Use Planning Systems • LA 307 Cultural Landscape Preservation • SOC 363 Environmental Justice • ENG 425 Environmental Writing • GEO 431 Political Ecology • FOR 540 Urban Ecology • GEO 550 Sustainable Resource Development and Environmental Management
CURRENT	PROPOSED CHANGE
Soil Science	<i>No change</i>
Students choosing this emphasis area will learn about the dynamic and interrelated processes taking place within the thin skin of the Earth (i.e.	<i>No change in description</i>

<p>Critical Zone) and the services provided by these processes to ensure adequate and sustainable feed, fuel and fiber production, clean air and water, and healthy habitats. Topics covered include bioremediation, phytoremediation, soil fertility, microbiology, soil chemistry, biogeochemistry, etc. Students completing this emphasis area will be equipped to evaluate soils for a range of management options, and be eligible for positions with public and private agencies (e.g. the Natural Resource Conservation Service, Environmental Protection Agency, U.S. Department of Agriculture, Environmental Consulting Firms, etc.)</p> <ul style="list-style-type: none"> • PLS 396 Soil Judging • PLS 468G Soil Use and Management • PLS/NRE 470G Soil Nutrient Management • PLS 566 Soil Microbiology • PLS 573 Soil Morphology and Classification • PLS 575 Soil Physics 	<ul style="list-style-type: none"> • PLS 396 Soil Judging • PLS 468G Soil Use and Management • PLS/NRE 470G Soil Nutrient Management • PLS 566 Soil Microbiology • PLS 573 Soil Morphology and Classification • PLS 575 Soil Physics • PLS 406 Advanced Soil Judging • PLS/NRE 455G Wetland Delineation • GEO 351 Physical Landscapes • EES 530 Low Temperature Geochemistry
CURRENT	PROPOSED CHANGE
<p>Water Resources</p>	<p><i>No change</i></p>
<p>The water resources emphasis area will provide students with a fundamental understanding of the hydrologic cycle so that students understand how climate, soils, vegetation, and land-use affect the amount, timing and quality of water. Use of this information is important in natural resource management so that one may determine where water resource management objectives are compatible and where they conflict with other resource management objectives. Ultimately, students will gain an understanding of the role of watershed management and multiple use in planning and implementing natural resource programs while becoming familiar with current issues in watershed management and water resources.</p> <ul style="list-style-type: none"> • AEN 461G Biometeorology • EES 585 Hydrogeology • BAE 532/CE 542 Introduction to Stream Restoration 	<p><i>No change in description</i></p> <ul style="list-style-type: none"> • AEN 461G Biometeorology • EES 585 Hydrogeology • BAE 532/CE 542 Introduction to Stream Restoration

<ul style="list-style-type: none"> • BAE 538 GIS Applications to Water Resources • BIO/GEO 530 Biogeography and Conservation • CHE 565 Environmental Chemistry • GEO 230 Weather and Climate • GEO 451G Fluvial Forms and Processes • EES 530 Low Temperature Geochemistry • PLS 573 Soil Morphology and Classification • PLS 575 Soil Physics 	<ul style="list-style-type: none"> • BAE 538 GIS Applications to Water Resources • BIO/GEO 530 Biogeography and Conservation • CHE 565 Environmental Chemistry • GEO 230 Weather and Climate • GEO 451G Fluvial Forms and Processes • EES 530 Low Temperature Geochemistry • PLS 573 Soil Morphology and Classification • PLS 575 Soil Physics • NRE/LA 556 Cont Geospatial Appl For Land Analysis • PLS/NRE 455G Wetland Delineation • BAE/CE 547 Watershed Sedimentation • LA 531 Water in Urbanizing Environments • FOR 530 Freshwater Ecology
CURRENT	PROPOSED CHANGE
Wildlife Management	Wildlife Ecology and Management
<p>This emphasis area will provide opportunities for students to gain knowledge and experience, understand fundamental concepts, and develop basic skills in the area of wildlife ecology and management. The curriculum provides students with the option to meet certification requirements to become a registered Associate Wildlife Biologist with The Wildlife Society. To do this, students will need to complete additional coursework. For more information visit: http://wildlife.org/learn/professional-development-certification/certification-programs/</p> <ul style="list-style-type: none"> • BIO/ENT 300 General Entomology • BIO 304 Principles of Genetics • BIO 325 Introductory Ecology • BIO 350/ASC 325 Animal Physiology • BIO 375 Behavioral Ecology and Sociobiology • BIO 559 Ornithology • FOR 370 Wildlife Biology and Management 	<p>No change to description</p> <ul style="list-style-type: none"> • BIO/ENT 300 General Entomology • BIO 304 Principles of Genetics • BIO 325 Introductory Ecology • BIO 350/ASC 325 Animal Physiology • BIO 375 Behavioral Ecology and Sociobiology • BIO 559 Ornithology • FOR 370 Wildlife Biology and Management • FOR 510 Herpetology • FOR 520 Mammals of the Eastern United States • FOR 530 Freshwater Ecology • FOR 540 Urban Ecology • FOR 550 US Biodiversity Hotspots • FOR 502/ENT 502 Forest Entomology • FOR/GEO 570 Landscape Ecology for Natural Resources • BIO 303 Introduction to Evolution • BIO/ENT 568 Insect Behavior • BIO 350 Animal Physiology • ASC 325 Animal Physiology

CHANGE UNDERGRADUATE DEGREE PROGRAM

PLEASE NOTE: To ensure that a series of changes to an existing degree program does not essentially create a new program, the Southern Association for the Accreditation of Colleges and Schools (SACS) requires submission of its Substantive Change Checklist for every program change. Prior to college-level review, you must fill out and submit the [SACS Substantive Change Checklist](#) to the Office of Institutional Effectiveness. Contact Institutional Effectiveness (institutionaleffectiveness@uky.edu) for assistance.

Once approved at the college level, your college will send the proposal to the appropriate Senate academic council (HCCC and/or UC) for review and approval. Once approved at the academic council level, the academic council will send your proposal to the Senate Council office for additional review and then a 10-day posting online, during which senators review on their own and have an option to register an objection if they so desire. If no objection is raised to the Senate Council Office within ten days of the posting the proposal, then the program change is approved. The Senate Council Office will report approvals to the Provost, Registrar and other appropriate entities, including the contact person.

For every proposed change, you MUST also include the existing requirement.

SUMMARY OF CHANGES

Check all that apply.

<input checked="" type="checkbox"/> Courses	<input type="checkbox"/> Program name	<input type="checkbox"/> Total required credit hours	<input type="checkbox"/> Student learning outcomes
<input type="checkbox"/> Criteria for admissions/progression/termination	<input type="checkbox"/> Certificate assessment	<input type="checkbox"/> Other	

1. General Information

1a	Date of contact with Institutional Effectiveness (IE) ¹ :	11/14/17
	<input checked="" type="checkbox"/> Appended to the end of this form is a PDF of the reply from Institutional Effectiveness.	
1b	College ² : CAFE	Department ² : NRES
1c	CIP code ³ : 03.0101	Today's Date: 11/16/17
1d	Current major name: (Biology, Design, etc.) NRES	Proposed major name:
1e	Current Degree (BA, BFA, etc.): BS BSNRS	Proposed degree:
1f	Will there be any changes regarding a track(s) for the program?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
1g	Accrediting agency, if applicable:	
1h	Date of most recent periodic program review for this degree:	2013
1i	Requested effective date: <input checked="" type="checkbox"/> Fall semester following approval.	OR <input type="checkbox"/> Specific Date ⁴ : Fall 20

¹ Prior to college-level review, you must fill out and submit the SACS Substantive Change Checklist to the Office of Institutional Effectiveness. You can reach Institutional Effectiveness by phone or email (257-2873 or institutionaleffectiveness@uky.edu).

² It is not possible to change the home academic unit of a degree program via this form. To change the home unit, visit <http://www.uky.edu/faculty/senate> and search for forms related to academic organizational structure.

³ The CIP code is provided by Institutional Effectiveness. If a different CIP code is necessary, the program may undergo a review similar to the new program approval process.

⁴ No program change(s) will be effective until all approvals are received.

CHANGE UNDERGRADUATE DEGREE PROGRAM

1j	Contact person name:	David H. McNear Jr	Phone / Email:	859-257-8627 / dave.mcnear@uky.edu
----	----------------------	--------------------	----------------	------------------------------------

2. Overview of Changes

2a Describe the rationale for the changes, including results from the most recent program review if applicable. (450 word limit)

The NRES steering committee in several meetings over the past year and a half have reviewed the lists of optional course offerings (guided electives) for the Analytical Skill Development Area (ASDA) and Environmental Systems Emphasis Areas (ESEA) and in the process added and/or removed course options. Previous review of these course options was performed in 2014. Since 2014 several courses are no longer offered and several new courses have come into existence. For example, the B.S Forestry program underwent a program change that resulted in several courses being added or changed that have a direct impact on our ESEA and ASDA offerings. There were no changes made to the UK Core, College, Pre-major, or major requirements for the degree and no change to the number of required credits to attain the B.S. NRES degree.

2b Use the fields below, as applicable, to identify the areas in which changes will be made.

		Current	Proposed
i.	Credit Hours of Premajor Courses:	25	
ii.	Credit Hours of Preprofessional Courses:	21	
iii.	Credit Hours of Major Core Course Requirements	45	
iv.	Minimum Credit Hours of Guided Electives:	18	
v.	Minimum Credit Hours of Free Electives:	11	
vi.	Credit Hours for Track 1 (name):		
vii.	Credit Hours for Track 2 (name):		
viii.	Credit Hours for Track 3 (name):		
ix.	Credit Hours for Track 4 (name):		
x.	Credit Hours for Track 5 (name):		
xi.	Credit Hours for Required Minor:		
xii.	Total Credit Hours Required by Level:		
	100-level:	24-36	
	200-level:	10-16	
	300-level:	23-45	
	400-level:	16-25	
	500-level:		

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION:	<u>120</u>	<u> </u>
--	------------	---------------

xv. If the total hours required for graduation have changed, explain below. (150 word limit)

2c	Will the requested change(s) result in the use of courses from another educational unit?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
----	--	---	-----------------------------

If "Yes," describe generally the courses and how they will be used.

The NRES steering committee in several meetings over the past year and a half have reviewed the lists of optional course offerings (guided electives) for the Analytical Skill Development Area (ASDA) and Environmental

Systems Emphasis Areas (ESEA) and in the process added and/or removed course options. Previous review of these course options was performed in 2014. Since 2014 several courses are no longer offered and several new courses have come into existence. For example, the B.S Forestry program underwent a program change that resulted in several courses being added or changed that have a direct impact on our ESEA and ASDA offerings. There were no changes made to the UK Core, College, Pre-major, or major requirements for the degree and no change to the number of required credits to attain the B.S. NRES degree.

If "Yes," two pieces of supporting documentation are required.

Check to confirm that appended to the end of this form is a letter of support from the appropriate chair/director⁵ of each unit from which individual courses will be used.

Check to confirm that appended to the end of this form is verification that the chair/director of each affected unit has consent from the faculty members of the unit. This typically takes the form of meeting minutes.

2d Will the proposed change(s) affect an associated minor? Yes No

If "Yes," the department must also submit a change form to change the minor.

3. Course Sharing

3a. Will the requested changes result in the use of courses from another unit? Yes No

If "Yes," describe generally the courses and how they will used.

NRES students are required to choose one analytical skill development area (ASDA) and one environmental systems emphasis area (ESEA) within which they choose from a list of optional classes (currently there are 4 ASDA and 8 ESEAs). We do not require our students to take any specific course from those listed under each ASDA or ESEA, but instead, we only list courses as options. The students must choose three courses from each area (i.e. 9 credits from ASDA, 9 credits from ESEA) to complete the requirement. The listed optional courses come from multiple departments and colleges.

If "Yes," two pieces of supporting documentation are required.

Check to confirm that appended to the end of this form is a letter of support from the other units' chair/director⁶ from which individual courses will be used.

Check to confirm that appended to the end of this form is verification that the chair/director of the other unit has consent from the faculty members of the unit. This typically takes the form of meeting minutes.

3. UK Core Courses

3a Are there any proposed changes to the UK Core requirements for the program? (If "Yes," indicate and proceed to next question. If "No," indicate and proceed to 4a.) Yes No

If "Yes," note the specific changes in the grid below.

UK Core Area	Current Course	Current Credits	Proposed Course	Proposed Credits
I. Intellectual Inquiry				
Arts and Creativity				
Humanities				
Social Sciences				

⁵ A dean may submit a letter only when there is no educational unit below the college level, i.e. there is no department/school.

⁶ A dean may submit a letter only when there is no educational unit below the college level, i.e. there is no department/school.

CHANGE UNDERGRADUATE DEGREE PROGRAM

	Natural/Physical/Mathematical				
II. Composition and Communication					
	Composition and Communication I	CIS/WRD 110	3	<i>CIS/WRD 110</i>	3
	Composition and Communication II	CIS/WRD 111	3	<i>CIS/WRD 111</i>	3
III. Quantitative Reasoning					
	Quantitative Foundations				
	Statistical Inferential Reasoning				
IV. Citizenship (one course in each area)					
	Community, Culture & Citizenship in USA				
	Global Dynamics				

Total UK Core Hours		=====	=====
----------------------------	--	-------	-------

3b Provide the Bulletin language about UK Core.

4. Graduation Composition and Communication Requirement

4a Will the Graduation Composition and Communication requirement be changed? (If “Yes,” indicate and proceed to next question. If “No,” indicate and proceed to 5a.) Yes No

If “Yes,” note the specific changes below, including changes to credit hours.

If the course(s) used are from outside the home unit, one piece of supporting documentation is required.

Check to confirm that appended to the end of this form is a letter of support from the other units’ chair/director⁷ from which individual courses will be used.

	Current	<i>Proposed</i>
i.	<input type="checkbox"/> Single course in home unit:	<input type="checkbox"/> <i>Single course in home unit:</i>
ii.	<input type="checkbox"/> Multiple courses in home unit.	<input type="checkbox"/> <i>Multiple courses in home unit.</i>
iii.	<input type="checkbox"/> Single course outside home unit.	<input type="checkbox"/> <i>Single course outside home unit.</i>
iv.	<input type="checkbox"/> Multiple courses outside home unit.	<input type="checkbox"/> <i>Multiple courses outside home unit.</i>
v.	<input type="checkbox"/> Course(s) inside & outside home unit.	<input type="checkbox"/> <i>Course(s) inside & outside home unit.</i>

4b Provide the Bulletin language about GCCR below.

5. Other Course Changes

5a Will the college-level requirements change? (If “Yes,” indicate and note the specific changes in the grid below. If “No,” indicate and proceed to question 5c.) Yes No

	Current	<i>Proposed</i>
	<input type="checkbox"/> Standard college requirement	<input type="checkbox"/> <i>Standard college requirement</i>
	<input type="checkbox"/> Specific course	<input type="checkbox"/> <i>Specific course</i>

Prefix &	Credit	Title	Prefix &	Credit	Title	Course Status ⁸
----------	--------	-------	----------	--------	-------	----------------------------

⁷ A dean may submit a letter only when there is no educational unit below the college level, i.e. there are no departments/schools.
⁸ Use the drop-down list to indicate if the course is a new course (“new”), an existing course that will change (“change”), or if the

CHANGE UNDERGRADUATE DEGREE PROGRAM

Nmbr	Hrs		<i>Nmbr</i>	<i>Hrs</i>		Select one....
						Select one....
						Select one....

5b	Will the existing language in the Bulletin about college-level requirements change?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
	If "Yes," provide the new language below.		

5c	Will the pre-major or pre-professional course requirements change? (If "Yes," indicate and note the specific changes in the grid below. If "No," indicate and proceed to question 5e.)	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
----	--	------------------------------	--

Current			Proposed			
Prefix & Nmbr	Credit Hrs	Title	Prefix & Nmbr	Credit Hrs	Title	Course Status ⁹
						Select one....
						Select one....
						Select one....
						Select one....
						Select one....

5d	Provide the Bulletin language about pre-major or pre-professional courses below.

5e	Will the major's core course requirements change? (If "Yes," indicate and note the specific changes in the grid below. If "No," indicate and proceed to question 5g.)	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
	If "Yes," note the specific changes in the grid below.		

Current			Proposed			
Prefix & Nmbr	Credit Hrs	Title	Prefix & Nmbr	Credit Hrs	Title	Course Status ¹⁰
						Select one....
						Select one....
						Select one....
						Select one....
						Select one....
						Select one....
						Select one....
						Select one....
						Select one....

course is an existing course that will not change ("no change").

⁹ Use the drop-down list to indicate if the course is new, exists but will change, or exists but will not change.

¹⁰ Use the drop-down list to indicate if the course is new, exists but will change, or exists but will not change.

CHANGE UNDERGRADUATE DEGREE PROGRAM

						Select one....
						Select one....
						Select one....
						Select one....
						Select one....
						Select one....

5f Provide the Bulletin language for major core course requirements.

5g Will the guided electives change? (If "Yes," indicate and note the specific changes in the grid below. If "No," indicate and proceed to question 5i.) Yes No

Current			Proposed			
Prefix & Nmbr	Credit Hrs	Title	Prefix & Nmbr	Credit Hrs	Title	Course Status ¹¹
		Please see attachment at the end of this docment detailing all changes				Select one....
						Select one....
						Select one....
						Select one....
						Select one....
						Select one....

5h Provide the Bulletin language for guided electives.

5i Will the free electives change? (If "Yes," indicate and note the specific changes in the space below. If "No," indicate and proceed to question 5j.) Yes No

5j Does the proposed change affect any track(s)? (If "Yes," note the specific changes using the grid below. If "No," proceed to question 6.) Yes No
 If more than one track is affected, click [HERE](#) for a template. Append a PDF for each affected track to the end of this form.

Track Name:		<input type="checkbox"/> New Track	<input type="checkbox"/> Changed Track	<input type="checkbox"/> Deleted Track		
Current			Proposed			
Prefix & Nmbr	Credit Hrs	Title	Prefix & Nmbr	Credit Hrs	Title	Course Status ¹²
						Select one....
						Select one....

¹¹ Use the drop-down list to indicate if the course is new, exists but will change, or exists but will not change.

¹² Use the drop-down list to indicate if the course is new, exists but will change, or exists but will not change.

						Select one....
						Select one....
						Select one....
						Select one....

5k Provide the Bulletin language for the track.

6. Semester by Semester Program

List below the typical semester-by-semester program for the major. If multiple tracks are available, click [HERE](#) for a template for additional tracks and append a PDF of each track’s courses to the end of this form.

YEAR 1 – FALL: (e.g. “BIO 103; 3 credits”)	Please see attached sample semester plan	YEAR 1 – SPRING:	
YEAR 2 - FALL :		YEAR 2 – SPRING:	
YEAR 3 - FALL:		YEAR 3 - SPRING:	
YEAR 4 - FALL:		YEAR 4 - SPRING:	

7. Approvals/Reviews

Information below does not supersede the requirement for individual letters of support from educational unit administrators and verification of faculty support (typically takes the form of meeting minutes).

In addition to the information below, attach documentation of department and college approval. This typically takes the form of meeting minutes but may also be an email from the unit head reporting department- and college-level votes.

	Reviewing Group Name	Date Approved	Contact Person Name/Phone/Email
7a	(Within College)		
	Plant and Soil Sciences	9/5/2017	Todd Pieffer / 218-0709 / tpfeiffe@uky.edu
	Entomology	9/12/2017	Subba Reddy Palli / 257-7450 / rpalli@uky.edu
	Forestry and Natural Resources	8/31/2017	Jeff Stringer / 275-7450 / jeffrey.stringer@uky.edu
	Landscape Architecture	9/13/2017	Ned Crankshaw / 257-4691 / ned.crankshaw@uky.edu
	Dietetics and Human Nutrition	9/13/2017	Sandra Bastin/ 257-3800/sandra.bastin@uky.edu
	NRES Stearing Committee	1/13/17	Mary Arthur/257-2852/marthur@uky.edu

7b (Collaborating and/or Affected Units)

	BAE	10/31/2017	Michael Montross / 257-5671 / michael.montross@uky.edu
	Civil Engineering	10/24/2017	Reginald Souleyrette / 257-4404 / souleyrette@uky.edu

CHANGE UNDERGRADUATE DEGREE PROGRAM

	Communications	9/7/2017	Shari Veil / 257-3621 / shari.veil@uky.edu
	Education Leadership Studies	9/13/2017	John Nash / 257-8921 / john.nash@uky.edu
	Earth and Environmental Sciences	9/20/2017	Dave Moecher / 257-3758 / moker@uky.edu
	Geography	9/17/2017	Patricia Ehrkamp/257-2931/p.ehrkamp@uky.edu
	Sociology	9/29/17	Claire Renzetti/ 257-6424/claire.renzetti@uky.edu
	English	12/1/2017	Jeffery Clymer/257-2901/jeff.clymer@uky.edu

7c	(Senate Academic Council)	Date Approved	Contact Person Name
	Health Care Colleges Council (if applicable)		
	Undergraduate Council (College)	12/1/18	Larry Grabau/257-3468/lgrabau@uky.edu
	Undergraduate Council	3/6/18	Joanie Ett-Mims



David McNear <dave.mcnear@gmail.com>

UK Sub Change - B.S. NRES

Mathews, Alice <Alice.Mathews@uky.edu>
To: "McNear, David" <dave.mcnear@uky.edu>

Wed, Nov 15, 2017 at 3:00 PM

David,

Thank you for your emails regarding the proposed program change(s) to the **Bachelor of Science in Natural Resources and Environmental Sciences (CIP: 03.0101)**.

My email will serve 2 purposes: 1.) Next steps for SACSCOC, and 2.) Verification and notification that you have contacted the Office of Strategic Planning and Institutional Effectiveness (OSPIE)—a Senate requirement for proposal approval.

1. **Next steps for SACSCOC:** None required
2. **Verification that OSPIE has reviewed the proposal:** Based on the proposal documentation presented and Substantive Change Checklist, the proposed program changes (refer to list below) are not substantive changes as defined by University or SACSCOC, the university's regional accreditor. Therefore, no additional information is required by the Office of Strategic Planning & Institutional Effectiveness at this time. The proposed program change(s) may move forward in accordance with college and university-level approval processes.

List of Proposed Change(s):

- NRES students are required to choose one analytical skill development area (ASDA) and one environmental systems emphasis area (ESEA) within which they choose from a list of optional classes. The list was updated to reflect new classes and classes that are no longer taught at UK. For the full list of options and the approval by their respective departments on the Senate's Undergraduate Change form. The appropriate permissions have been granted and are attached to the same form.

Should you have questions or concerns about UK's substantive change policy and its procedures, please do not hesitate contacting me.

Alice Mathews

From: dave.mcnear@gmail.com [mailto:dave.mcnear@gmail.com] **On Behalf Of** David McNear
Sent: Wednesday, November 15, 2017 1:24 PM

[Quoted text hidden]

[Quoted text hidden]

NRES Changes to Guided Electives (*Specialty Support*) by Department

✓ FOR – Jeff Stringer, Chair, stringer@uky.edu Approved August 31, 2017

Current	Proposed
<ul style="list-style-type: none"> • FOR 200 Basics of Geospatial Technology • FOR 219 Dendrology • FOR 320 Forest Valuation and Economics • FOR 350 Silviculture • FOR 370 Wildlife Biology and Management • FOR 400 Human Dimensions of Forestry and Natural Resources • ENT/FOR 502 Forest Entomology • FOR 425 Forest Management 	<ul style="list-style-type: none"> • FOR 221 Winter Dendrology (Paratley) • FOR 255 Forest Fire (Lhotka) • FOR 260 Forest Products and Wood Science (Ringe) • ABT/ENT/FOR/BIO 461 Intro to Population Genetics • FOR 510 Herpetology (Price) • FOR 520 Mammals of the Eastern United States (TBD) • FOR 530 Freshwater Ecology (Price) • FOR 540 Urban Ecology • FOR 560 Landscape Ecology • FOR/GEO 570 Landscape Ecology for Natural Resources (Yang)

✓ PLS – Todd Pfeiffer, Chair, tpfeiffe@uky.edu Approved September 5, 2017

Current	Proposed
<ul style="list-style-type: none"> • PLS 573 Soil Morphology and Classification • BIO/PLS 210 The Life Processes of Plants • SAG/PLS 386 Plant production systems • PLS 404 Integrated Weed Management • PLS 396 Soil Judging • PLS 468G Soil Use and Management • PLS/NRE 470G Soil Nutrient Management • PLS 566 Soil Microbiology • PLS 575 Soil Physics 	<ul style="list-style-type: none"> • PLS 406 Advanced Soil Judging (Karathanasis) • NRE/PLS 455G Wetland Delineation (Karathanasis) • PLS 514 Grass Taxonomy and ID (Phillips) • PLS 581 Methods of Plant and Soil Analysis

✓ COM – in Environmental Education and Communication ASD – Shari Veil, Chair, Shari.Veil@uky.edu (859 218-0468) sent September 5, 2017. Approved 9/7/17.

Current	Proposed
	<ul style="list-style-type: none"> • COM 315 Understanding Workplace Communication (Guth) • COM 281 Communication in Small Groups (Letcher) • COM 287 Persuasive Speaking (Rebecca and Kaiser)

✓EES – Dave Moecher, Chair, moker@uky.edu Sent Sept 5, 2017, (859-257-6939) follow up email on 9/9/17.

Approved 9/20/17

Current	Proposed
<ul style="list-style-type: none"> • EES 230 Fundamentals of Geology I • EES 235 Fundamentals of Geology II • EES 323 Geology Field Camp • EES 360 Mineralogy • EES 450 Sedimentary Geology • EES 530 Low Temperature Geochemistry • EES 550 Fundamentals of Geophysics • EES 585 Hydrogeology 	<ul style="list-style-type: none"> • EES 345 Paleoclimatology: The Science (Yeager)

✓BAE/CE - Michael Montross, BAE Chair, Michael.montross@uky.edu (859-257-4319) Sent Sept 5, 2017, resent on 9/13/17. Approved 10/31/17. Reginald Souleyrette, CE Chair; souleyrette@uky.edu (859-257-4404) sent 10/24/2017. Approved 10/24/2017

Current	Proposed
<ul style="list-style-type: none"> • BAE 538 GIS Applications to Water Resources • BAE 532/CE 542 Introduction to Stream Restoration • AEN 461G Biometeorology 	<ul style="list-style-type: none"> • BAE/CE 547 Watershed Sedimentation

✓GEO – Patricia Ehrkamp, Chair, schein@uky.edu (859-257-2119) Sent Sept 5, 2017, follow up call on 9/13/17.

Approved Sept 17, 2017

Current	Proposed
<ul style="list-style-type: none"> • GEO 230 Weather and Climate • GEO 235 Environmental Management and Policy • GEO 285 Introduction to Planning • GEO 309 Digital Geographic Data: Sources, Characteristics, Problems, and Uses • GEO 331 Global Environmental Change • GEO 351 Physical Landscapes • GEO 415 Map Interpretation • GEO 451G Fluvial Forms and Processes • GEO 485G Urban Planning and Sustainability • GEO 490G American Landscapes • BIO/GEO 530 Biogeography and Conservation • GEO 531 Landscape Ecology • GEO 550 Sustainable Resource Development and Environmental Management 	<ul style="list-style-type: none"> • GEO 220 US Cities (UK Core) • GEO 222 Cities of the World (UK Core) • GEO 305 Elements of Cartography (Gilbreath) • GEO 316 Environment and Development (Froehling) • GEO 419 Introduction to Remote Sensing (Liang) • GEO 422 Urban Geography • GEO 431 Political Ecology (Beymer-Farris) • GEO 509 Workshop in Geospatial Technologies (Wilson) • FOR/GEO 570 Landscape Ecology for Natural Resources (Yang)

✓ENG – Jeff Clymer, Chair, jeff.clymer@uky.edu , sent November 03, 2017, follow up November 06, 2017, approved Dec 6, 2017

Current	Proposed
	<ul style="list-style-type: none"> • ENG 425 Environmental Writing (Roorda)

✓DHN – Dr. Sandra Bastin, Chair, Sandra.bastin@uky.edu (859 257-3800) Sent September 5, 2017, follow up call on 9/13/17. Approved 9/13/17

Current	Proposed
	<ul style="list-style-type: none"> • DHN 318 Hunger, Food Behavior, & the Environment (Gustafson)

✓CLD – Wes Harrison, CLD Chair, wes.harrison@uky.edu (859-257-7579), sent September 5, 2017, follow up call on 9 11/17. Approved 9/13/17 via email, however since these courses are offered and paid for by EDL the approval was sought from the chair and faculty of EDL. ✓EDL –Dr. John Nash (EDL chair) john.nash@uky.edu (859-257-7845) Sent September 5, 2017, follow up call on 9/13/17. Approved 9/13/17

Current	Proposed
<ul style="list-style-type: none"> • CLD 230 Intrapersonal Leadership • CLD/SOC 340 Community Interaction • CLD/SOC 360 Environmental Sociology • CLD/SOC 420 Sociology of Communities • CLD/SOC 440 Community Processes and Communication 	<ul style="list-style-type: none"> • CLD/EDL 402 Principles Of Leadership (Sherif) • CLD/EDL 403 Leadership and Communication (Varies) • CLD/SOC 517 Rural Sociology (Harris)

✓ENT – Subba Reddy Palli, Chair, rpalli@email.uky.edu (859 257- 7450) Sent September 5, 2017, Approved 9/12/17

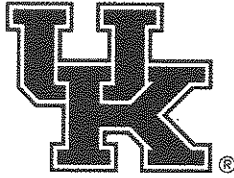
Current	Proposed
<ul style="list-style-type: none"> • ENT/BIO 300 General Entomology • ENT/FOR 502 Forest Entomology • ENT 310 Insect Pests of Field Crops 	<ul style="list-style-type: none"> • BIO/ENT 568 Insect Behavior (Haynes)

✓LA – Ned Crankshaw, Chair, ned.crankshaw@uky.edu (859 257-7295) Sent September 5, 2017, follow up call on 9/13/17 Approved 9/13/17

Current	Proposed
<ul style="list-style-type: none"> • LA 457 Contemporary Regional Land Use Planning Applications • LA 556/NRE 556 Advanced Geographic Information Systems (GIS) and Landscape Analysis (Lee) • LA 308 Regional Land Use Planning Systems 	<ul style="list-style-type: none"> • LA 531 Water in Urbanizing Environments (Sass) • LA307 Cultural Landscape Preservation • LA556 Contemporary Geospatial Applications for Land Analysis

✓SOC – Claire Renzetti, clarie.renzetti@uky.edu (859) 257-6424 Sent and heard back on 9/12/17. Approved 10/5/17

Current	Proposed
<ul style="list-style-type: none"> • CLD/SOC 360 Environmental Sociology • CLD/SOC 340 Community Interaction • CLD/SOC 360 Environmental Sociology • CLD/SOC 420 Sociology of Communities • CLD/SOC 440 Community Processes and Communication 	<ul style="list-style-type: none"> • SOC/CLD 517 Rural Sociology (Harris) • SOC 363 Environmental Justice (formerly Bell)



University of Kentucky
Department of Biology
101 Thomas Hunt Morgan Building
Lexington, KY 40506-0225
P: 859-257-1717
<https://bio.as.uky.edu>

April 30, 2018

To whom it may concern:

At our April 20, 2018 faculty meeting, the faculty of the Biology department voted to approve the inclusion of the Biology courses listed below as options for Natural Resource and Environmental Sciences (NRES) students. The minutes from the faculty meeting are attached. Students who enroll in the courses listed below should have completed all of the pre-requisites before enrolling.

BIO 325: Ecology

BIO 375: Behavioral Ecology and Sociobiology

BIO 304: Genetics

BIO 559: Ornithology

BIO 303: Evolution

BIO 350: Animal Physiology

BIO 351: Plant Kingdom

We appreciate the opportunity to help you offer a well-rounded curriculum to your students. Please contact me if you have any further questions.

Sincerely,

Vincent Cassone
Chair and Professor
Department of Biology
University of Kentucky
859-257-6766

see blue.

An Equal Opportunity University

URGENT Approval needed

Hoyt, William <whoyt@uky.edu>

Fri, Apr 20, 2018 at 12:17 PM

To: "McNear, David" <dave.mcnear@uky.edu>

Cc: "Kusunose, Yoko" <yoko.kusunose@uky.edu>, "Barnett, Barry" <Barry.Barnett@uky.edu>, "Hoyt, William" <whoyt@uky.edu>



Gatton College of
Business and Economics
Department of Economics

David,

Thanks for providing the information. ECO 381 Environmental Economics) is actually a new course – just on the books. I suspect that when you put together your proposal it was being taught as a topics course (ECO 410). We have, since hiring Professor Ma, been consistently teaching it at least once or twice a year.

While ECO 473G might have some relevance and might be added, given its prerequisites I think it will be irrelevant for most students – they will not have the prerequisite of ECO 401. You could include it for the few who may but my recommendation would be to certainly to focus on ECO 381 which seems more relevant and which has prerequisites that will be met by students in your program. Perhaps more to the point, with Lala teaching it, the course has been very popular and, based on the statements of students taking the course, valuable and interesting.

Bill

William Hoyt

Chair and Gatton Endowed Professor

Department of Economics

Gatton College of Business and Economics

University of Kentucky

Lexington, KY 40506

whoyt@uky.edu

01-859-257-2518

From: dave.mcnear@gmail.com <dave.mcnear@gmail.com> **On Behalf Of** David McNear**Sent:** Friday, April 20, 2018 12:07 PM**To:** Hoyt, William <whoyt@uky.edu>**Cc:** Kusunose, Yoko <yoko.kusunose@uky.edu>; Barnett, Barry <Barry.Barnett@uky.edu>

[Quoted text hidden]

[Quoted text hidden]



January 18, 2018

Subject: Approval of changes to the Natural Resources and Environmental Sciences curriculum

Dear Dr. McNear,

The NRES steering committee in several meetings over the past year and a half have reviewed the course offerings for the Analytical Skill Development Area (ASDA) and Environmental Systems Emphasis Areas (ESEA) and in the process added and/or removed course options. I have had the opportunity to review the courses and consulted with the steering committee via email the week of January 8th, 2018, and received unanimous approval of the proposed course additions/removals. I approve of the changes being proposed to the NRES options list.

Sincerely,

A handwritten signature in blue ink that reads "Mary A. Arthur". The signature is written in a cursive style.

Mary A. Arthur
NRES Steering Committee Chair



105 T.P. Cooper Building
Lexington, KY 40546-0073
P: 859-257-7596
F: 859-323-1031
www.uky.edu

August 30, 2017

Dr. David McNear
N122S Ag. Science Bldg. North
University of Kentucky
Plant & Soil Sciences Department
Lexington KY 40546

Subject: Approval of courses for Natural Resources and Environmental Sciences
curriculum revision

Dear Dr. McNear:

Thank you for contacting me regarding the proposed addition of courses from the Department of Forestry and Natural Resources as options within the NRES ASD and/or ESEA emphasis areas. I have had the opportunity to review the courses and consulted with the faculty that agree through consensus on August 30, 2017 to the additions and we are happy to offer our approval.

Sincerely,

A handwritten signature in black ink, reading 'Jeffrey W. Stringer'. The signature is written in a cursive style with a large, sweeping 'J' and 'S'.

Jeffrey W. Stringer
Interim Chair, Department of Forestry and Natural Resources

JS/lq



University of Kentucky
**College of Agriculture, Food
and Environment**
Department of Plant and Soil Sciences
105 Plant Science Building
Lexington, KY 40546-0312
P: 859-218-0709

September 5, 2017

Dr. David McNear
Director of Undergraduate Studies – Natural Resources and Environmental Sciences

Subject: Approval of courses for Natural Resources and Environmental Sciences curriculum revision

Dear Dr. McNear:

I received your letter requesting consideration for adding courses from the Department of Plant and Soil Sciences as options within the Analytical Skill Development Areas (ASDA) and Environmental Systems Emphasis Areas (ESEA) of the NRES curriculum. I reviewed the letter, presented the proposal to the faculty August 25, and noted a consensus agreement via email to the proposal. The department approves adding those courses to the NRES options list.

Sincerely,

A handwritten signature in black ink that reads "Todd Pfeiffer".

Todd Pfeiffer
Professor and Chair



Department of Communication
227 Grehan Building
Lexington, KY 40506-0042
Email: commdept@uky.edu
Information/Academic Services:
859 257-3621
Administration: 859 257-3622
fax 859 257-4103
comm.uky.edu

September 7, 2017

Subject: Approval of courses for Natural Resources and Environmental Sciences curriculum revision

Dear Dr. McNear,

Thank you for contacting me regarding the proposed addition of courses from the Department of Communication as options within the NRES ASD and/or ESEA emphasis areas. I have had the opportunity to review the courses and consulted with the Department Faculty at our monthly meeting on September 6, 2017. The faculty voted to approve the proposed course additions with the understanding that if we do not have the resources to continue to offer the courses to students beyond our majors and minors in the future, we will need to restrict sections or registration windows in order to give our students priority for the classes.

Sincerely,

A handwritten signature in cursive script that reads "Shari Veil".

Shari R. Veil, MBA, Ph.D.
Chair, Department of Communication



University of Kentucky
College of Arts
& Sciences

Department of Earth and Environmental
Sciences

101 Slone Building
Lexington, KY 40506
P: 859-257-3758
ees.as.uky.edu

David P. Moecher, Professor and Chair
Sept. 20, 2017

Prof. David H. McNear, Jr., DUS
NRES Program
Dept. Plant and Soil Science
N-122S Ag. Sciences North Bldg.
Campus 40546

Subject: Approval of courses for Natural Resources and Environmental Sciences curriculum revision

Dear Dr. McNear,

Thank you for contacting me regarding the proposed addition of EES 345 Paleoclimatology: the Science, a course in the Department of Earth and Environmental Sciences, as an option within the NRES ASD and/or ESEA emphasis areas. I had the opportunity to review the course and consulted with the faculty in our department during a faculty meeting on Sept. 20, 2017. We reached a consensus agreement to the proposed course addition. The department approves adding EES 345 to the NRES options list.

moker@uky.edu
<http://ees.as.uky.edu/users/moker>

see blue.

An Equal Opportunity University



University of Kentucky
College of Arts
& Sciences

Department of Earth and Environmental
Sciences

101 Slone Building
Lexington, KY 40506
P: 859-257-3758
ees.as.uky.edu

David P. Moecher, Professor and Chair
Sept. 20, 2017

Prof. David H. McNear, Jr., DUS
NRES Program
Dept. Plant and Soil Science
N-122S Ag. Sciences North Bldg.
Campus 40546

Subject: Approval of courses for Natural Resources and Environmental Sciences curriculum revision

Dear Dr. McNear,

Thank you for contacting me regarding the proposed addition of EES 345 Paleoclimatology: the Science, a course in the Department of Earth and Environmental Sciences, as an option within the NRES ASD and/or ESEA emphasis areas. I had the opportunity to review the course and consulted with the faculty in our department during a faculty meeting on Sept. 20, 2017. We reached a consensus agreement to the proposed course addition. The department approves adding EES 345 to the NRES options list.

moker@uky.edu
<http://ees.as.uky.edu/users/moker>

see blue.

An Equal Opportunity University

October 31, 2017

Subject: Approval of courses for Natural Resources and Environmental Sciences curriculum revision

Dear Dr. McNear,

Thank you for contacting me regarding the proposed addition of courses from the Department of Biosystems and Agricultural Engineering as options within the NRES ASD and/or ESEA emphasis areas. I have had the opportunity to review the courses and consulted with the instructors of these courses on October 20, 2017 and noted a consensus agreement at the faculty meeting on that date to the proposed course additions. The department approves adding those courses to the NRES options list.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael Montross". The signature is fluid and cursive, with a long horizontal stroke at the end.

Michael Montross
Professor and Chair
Biosystems and Agricultural Engineering Department



**University of Kentucky
Department of Geography**

817 Patterson Office Tower
Lexington, KY 40506
P: 859-257-2931
F: 859-257-6277
geography.as.uky.edu

September 17, 2017

Dr. David McNear
Address Goes Here
Lexington, KY 40506

Subject: Approval of courses for Natural Resources and Environmental Sciences curriculum revision

Dear Dr. McNear,

Thank you for contacting me regarding the proposed addition of courses from the Department of Geography as options within the NRES ASD and/or ESEA emphasis areas. I have had the opportunity to review the courses and consulted with the instructors of these courses during our faculty meeting on September 15, 2017. There was unanimous agreement to the proposed course additions. The department approves adding those courses to the NRES options list.

Sincerely,

A handwritten signature in cursive script that reads "Patricia Ehrkamp".

Patricia Ehrkamp, PhD
Associate Professor and Chair



Jeffory A. Clymer, Chair
Department of English
1215 Patterson Office Tower
Lexington, KY 40506-0027

859 257-7008
fax 859 323-1072

www.as.uky.edu/English

December 6, 2017

Dear Dr. McNear,

Thank you for contacting me regarding the proposed addition of ENG 425 from the Department of English within the NRES ASD and/or ESEA emphasis areas. I have had the opportunity to review the courses and consulted with the instructors of these courses, and the English Department as a whole also voted unanimously (18-0) at its faculty meeting today (December 6th) to approve adding those courses to the NRES options list.

Sincerely,

A handwritten signature in black ink that reads 'Jeffory A. Clymer' with a long, sweeping horizontal line extending to the right.

Jeffory A. Clymer
Professor and Chairperson



College of Agriculture, Food and Environment

Dietetics and Human Nutrition

*Department of Dietetics and Human Nutrition
203A Funkhouser Building
University of Kentucky
Lexington, KY 40506-0054*



To: Dr. David McNear
From: Dr. Sandra Bastin, DHN Chair
Date: September 12, 2017
Re: NRES Curriculum Revision Request

Sandra S Bastin, PhD, RD, LD, CDE

The Department of Dietetics and Human Nutrition faculty have reviewed the NRES request and unanimously approves DHN 318 being listed in the NRES Global Food Systems emphasis. We support students taking the course with “consent of instructor” and agree that five students per year is a reasonable limit.



John B. Nash, Ph.D.
Educational Leadership Studies
111 Dickey Hall | Lexington, KY 40506
P: 859-257-8921 | F: 859-257-1015
www.uky.edu | education.uky.edu/edl/

September 13, 2017

Dr. David H. McNear, Jr.
Associate Professor of Rhizosphere Science
Director of Undergraduate Studies for NRES
University of Kentucky
Department of Plant and Soil Sciences
N-122S Ag. Sciences North Bldg.
1100 Nicholasville Road
Lexington, KY 40546-0091

Dear Dr. McNear,

Thank you for contacting me regarding the proposed addition of courses from the Department of Educational Leadership Studies as options within the NRES ASD and/or ESEA emphasis areas. I have had the opportunity to review the courses and consulted with the instructors of these courses at our faculty meeting on September 11, 2017 and noted a consensus agreement to the proposed course additions. The department approves adding those courses to the NRES options list.

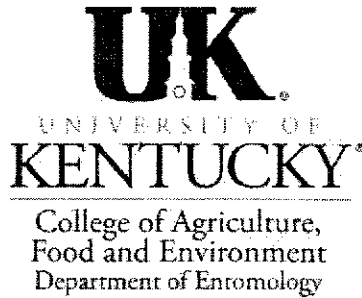
Sincerely,

A handwritten signature in blue ink that reads 'John Nash'. The signature is fluid and cursive, with a long horizontal stroke extending to the right.

John Nash, Ph.D.
Department Chair

see blue.

An Equal Opportunity University



Department of Entomology S-225
Ag. Science – North
Lexington, KY 40546-0091
(859) 257-7450
Fax: (859) 323-1120
www.uky.edu

September 12, 2017

Subject: Approval of courses for Natural Resources and Environmental Sciences curriculum revision

Dear Dr. McNear,

Thank you for contacting me regarding the proposed addition of BIO/ENT 568 Insect Behavior course from the Department of entomology as options within the NRES ASD and/or ESEA emphasis areas. I have had the opportunity to review the course and consulted with the instructor of this course on 12th September, 2017 and noted a consensus agreement via email to the proposed course addition. Entomology department approves adding this course to the NRES options list.

Sincerely,

A handwritten signature in black ink, appearing to read 'Subba Reddy Palli'. The signature is stylized with a large initial 'S' and a horizontal line extending to the right.

Subba Reddy Palli
University Research Professor and Chair

A handwritten signature in black ink, appearing to read 'Ken Haynes'. The signature is written in a cursive style.

Ken Haynes
Professor and Course Instructor

September 13, 2017

David H. McNear Jr., PhD
Associate Professor of Rhizosphere Science
Director of Undergraduate Studies for NRES
Department of Plant and Soil Sciences
University of Kentucky
N-122S Ag. Sciences North Bldg.
Lexington, KY 40546-0091

Dear David,

Thank you for contacting me regarding the proposed addition of courses from the Department of Landscape Architecture as options within the NRES emphasis areas. Our faculty discussed the proposed list of courses during a faculty meeting this morning and expressed support for their inclusion in the NRES program. The list of courses, including those already listed in the program and new listings include the following:

LA 308 Regional Land Use Planning Systems
LA 457 Contemporary Regional Land Use Planning Applications
LA 531 Water in Urbanizing Landscapes
LA 556 Contemporary Geospatial Applications for Land Analysis

Additionally, the NRES steering committee might consider LA 307 Cultural Landscape Preservation as an additional LA course in the Human Dimensions emphasis area.

My regards,



Ned Crankshaw, FASLA
Professor and Chair
Department of Landscape Architecture



Department of Sociology
1501 Patterson Office Tower
University of Kentucky
Lexington, KY 40506-0027

September 29, 2017

Subject: Approval of courses for Natural Resources and Environmental Sciences curriculum revision

Dear Dr. McNear,

Thank you for contacting me regarding the proposed addition of courses from the Department of Sociology as options within the NRES ASD and/or ESEA emphasis areas. I have had the opportunity to review the courses and I consulted with the faculty of record for these courses today, September 29th, at our monthly department meeting. The department approves adding these courses to NRES options list.

Sincerely,

Claire M. Renzetti, Ph.D.
Professor and Chair of Sociology
Judi Conway Patton Endowed Chair for Studies of Violence Against Women

Signatures of the Sociology Faculty:

Patrick Mooney
Noah Brown
Came
Curt M
Ana Liberato
Julia Miller, Graduate Student Rep.
TB
Toy

Semester: Fall		Year: Freshman	
Course Number & Title	Hours		
UK CORE: GEN 100* (F)	3		
UK CORE: CIS/WRD 110	3		
UK CORE: CHE 105	4		
UK CORE: CHE 111	1		
UK CORE: Social Sciences Elective	3		
Total Hours	14		

Semester: Spring		Year: Freshman	
Course Number & Title	Hours		
UK CORE: MA 123	4		
UK CORE: CIS/WRD 111	3		
UK CORE: Global Dynamics Elective	3		
UK CORE: Arts & Creativity Elective	3		
UK CORE: Humanities Elective	3		
Total Hours	16		

Semester: Fall		Year: Sophomore	
Course Number & Title	Hours		
NRE 201* (F)	3		
PHI 336* (F)	3		
BIO 148	3		
ECO 201	3		
UK CORE: STA 296	3		
Total Hours	15		

Semester: Spring		Year: Sophomore	
Course Number & Title	Hours		
BIO 152	3		
EES 220	4		
NRE 381 (S)	3		
PLS 366	4		
Total Hours	14		

Summer: NRE 320* (Su)	3
Total Hours	3

Semester: Fall		Year: Junior	
Course Number & Title	Hours		
FOR 325 (F)	3		
FOR 340 (F)	4		
AEC 326	3		
ASDA or ESEA Elective	3		
ASDA or ESEA Elective	3		
Total Hours	16		

Semester: Spring		Year: Junior	
Course Number & Title	Hours		
AEC 445G	3		
NRE 355	3		
ASDA or ESEA Elective	3		
ASDA or ESEA Elective	3		
Elective	3		
Total Hours	15		

Summer: NRE 395 or 399	3
Total Hours	3**

← This can be taken during the semester or during the summer. Most students take it in summer.

Semester: Fall		Year: Senior	
Course Number & Title	Hours		
FOR 460G (F) or EES 385 (F)	3		
ASDA or ESEA Elective	3		
ASDA or ESEA Elective	3		
Elective	3		
** Summer NRE 395/399 registered	3		
Total Hours	15		

Semester: Spring		Year: Senior	
Course Number & Title	Hours		
NRE 471* (S)	4		
For 435 (S)	3		
Elective	3		
Elective	3		
Total Hours	13		

***Courses only offered this semester/year or highly recommended to take at this time.**

Courses only offered one semester are noted.
Fall (F), Spring (S), Summer (Su)

With electives, study abroad can easily be worked into a summer or semester.