

UNIVERSITY FACULTY SENATE FORMS

Academic Program Approval

This form is a routing document for the approval of new and revised academic programs. Proposing department should complete this form. For more information, call the Faculty Senate Office at 831-2921.

Submitted by: Jacob Bowman phone number 831-4621

Department: Entomology and Wildlife Ecology email address jlbowman@udel.edu

Date: October 16, 2013

Action: revise Wildlife Conservation major

(Example: add major/minor/concentration, delete major/minor/concentration, revise major/minor/concentration, academic unit name change, request for permanent status, policy change, etc.)

Effective term 14F
(use format 04F, 05W)

Current degree BS
(Example: BA, BACH, BACJ, HBA, EDD, MA, MBA, etc.)

Proposed change leads to the degree of: _____
(Example: BA, BACH, BACJ, HBA, EDD, MA, MBA, etc.)

Proposed name: Wildlife Ecology and Conservation
Proposed new name for revised or new major / minor / concentration / academic unit (if applicable)

Revising or Deleting:

Undergraduate major / Concentration: Wildlife Conservation
(Example: Applied Music – Instrumental degree BMAS)

Undergraduate minor: _____
(Example: African Studies, Business Administration, English, Leadership, etc.)

Graduate Program Policy statement change: _____
(Must attach your Graduate Program Policy Statement)

Graduate Program of Study: _____
(Example: Animal Science: MS Animal Science: PHD Economics: MA Economics: PHD)

Graduate minor / concentration: _____

Note: all graduate studies proposals must include an electronic copy of the Graduate Program Policy Document, highlighting the changes made to the original policy document.

List new courses required for the new or revised curriculum. How do they support the overall program objectives of the major/minor/concentrations)?

(Be aware that approval of the curriculum is dependent upon these courses successfully passing through the Course Challenge list. If there are no new courses enter “None”)

None of the courses in this revision are new.

Explain, when appropriate, how this new/revised curriculum supports the 10 goals of undergraduate education: <http://www.ugs.udel.edu/gened/>

1. *Attain effective skills in oral and written communication, quantitative reasoning, and the use of information technology.*

The major has always required 9 credit hours of written and oral communication courses but this revision will require that at least one course be written communication and one be oral communication. This change will ensure that student gain experience in both forms of communication. Additionally, ENWC 325, ENWC 415, ENWC 416 and ENWC 456 require students to present written and/or oral reports. These four courses also strengthen quantitative reasoning skills and the use of information technology.

2. *Learn to think critically to solve problems.*

Problem solving is emphasized in many of the required science courses, especially those with laboratories.

3. *Be able to work and learn both independently and collaboratively.*

Both independent and collaborative work is emphasized in many of the required science classes with laboratories. ENWC 325, ENWC 415, ENWC 416 and ENWC 456 require students to present written and/or oral reports which require students to work independently and collaboratively solving problems.

4. *Engage questions of ethics and recognize responsibilities to self, community, and society at large.*

Environmental issues and conservation of biodiversity are central to wildlife conservation and many of the courses in the major address these issues. The Senior Capstone Experience (ENWC 465) explicitly addresses controversial issues related to wildlife conservation.

The last 6 goals are supported through college and university requirements as well as electives that expose students to a broad understanding of social, cultural, global, aesthetic, environmental, and intellectual aspects of the world we live in.

Identify other units affected by the proposed changes:

(Attach permission from the affected units. If no other unit is affected, enter “None”)

The Department of English, John Ernest jrernest@udel.edu

Describe the rationale for the proposed program change(s):

(Explain your reasons for creating, revising, or deleting the curriculum or program.)

We propose change the requirement for ENWC 465 to ENWC 465 or UNIV 402 because students completing a senior thesis have to present a major research project both as a thesis and as a poster or oral presentation. The written and poster presentation of research is a major focus of ENWC 465. We propose to drop APEC 408 as a statistics option since it will not be taught in the future. We propose to revise the botany credit hours so it reflects the change in credit hours for PLSC 101. We propose changing the name of the major to Wildlife Ecology and Conservation to better describe the balance of ecology and conservation in the current major. We also wanted our insect and wildlife majors to have similar names. We don't think this new name will conflict with the current Ecology major in our department since it is a very broad major

without a particular focus in organismal biology like our insect and wildlife majors.

Program Requirements:

(Show the new or revised curriculum as it should appear in the Course Catalog. If this is a revision, be sure to indicate the changes being made to the current curriculum and **include a side-by-side comparison** of the credit distribution before and after the proposed change.)

Below is the revised curriculum and attached is the side-by-side comparison of the old and new curricula.

DEGREE: BACHELOR OF SCIENCE
MAJOR: WILDLIFE CONSERVATION

CURRICULUM CREDITS

See University and College requirements.

MAJOR REQUIREMENTS

A minimum grade of C- is required for all ENWC credits used to satisfy departmental requirements.

Professional Studies

APEC 135 (or equivalent) Intro to Data Analysis 3

MATH 115, MATH 221, or MATH 241 3-4

BISC 207/BISC 208 Introductory Biology I and II 8

BISC 302 General Ecology 3

CHEM 103/CHEM 104 General Chemistry 8

ENWC 165 New Student Seminar 1

ENWC 201 Wildlife Conservation and Ecology 3

ENWC 205 Elements of Entomology 3

ENWC 325 Wildlife Management 3

ENWC 413 Wildlife Policy and Administration 3

ENWC 416 Wildlife Habitat Management 3

ENWC 456 Conservation Biology 3

ENWC 415 Wildlife Research Techniques 3

ENWC 418 Ornithology 3

ENWC 425 Mammalogy 3

ENWC 465 Senior Capstone Experience 1

or

UNIV 402 Senior Thesis (requires completed thesis) 3

ECON 151 Introduction to Microeconomics: Prices and Markets 3

or

APEC 150 Economics of Agriculture and Natural Resources 3

STAT 200 Basic Statistical Practice 3

PLSC 101 Botany I 3

or

PLSC 201 Botany II 4

PLSC 204 Introduction to Soil Science 3

PLSC 212 Woody Landscape Plants 4

or

PLSC 214 Indigenous Woody Plants of Eastern United States 4

or

PLSC 404 Plant Taxonomy 3

GROUP I: 6 credits from the following

ANFS 140 Functional Anatomy of Domestic Animals

ANFS 251 Animal Nutrition

ANFS 300 Principles of Animal and Plant Genetics

ANFS 310 Animal and Plant Genetics Laboratory

ANFS 332 Introduction to Animal Diseases

BISC 300 Introduction to Microbiology

BISC 305 Cell Physiology
BISC 306 General Physiology
BISC 312 Field Ecology
BISC 442 Vertebrate Morphology
BISC 480 Vertebrate Natural History
BISC 495 Evolution
ENWC 214 Apiology and Apiculture
ENWC 215 Entomology Laboratory
ENWC 224 Apiology and Apiculture Laboratory
ENWC 314 Comparative Terrestrial and Marine Ecology
ENWC 405 Insect Structure and Function
ENWC 406 Insect Identification – Taxonomy
ENWC 408 Insect Field Taxonomy
ENWC 410 Medical, Veterinary, and Forensic Entomology
ENWC 411 Insect Pest Management
ENWC 419 Biological Control
ENWC 424 Herpetology
ENWC 435 Population Ecology
ENWC 444 Conservation of Tropical Biodiversity
ENWC 452 Conservation of African Wildlife
ENWC 620 Behavioral Ecology

GROUP II: 9 credits from the following

At least one of the following:

AGRI 212 Oral Communication in Agriculture and Natural Resources
COMM 212 Oral Communication in Business
COMM 350 Public Speaking
LEAD 209 Presentation Strategies
THEA 204 Introduction to Voice and Speech

At least one of the following:

ENGL 301 Expository Writing
ENGL 307 News Writing and Editing
ENGL 309 Feature and Magazine Writing
ENGL 312 Written Communications in Business
ENGL 410 Technical Writing
ENGL 413 Topics in Professional Writing 3
UNIV 402 Senior Thesis (requires completed thesis)

GROUP III: 3 credits from the following

ENEP 410 Political Economy of Environment
ENEP 426 Climate Change: Science, Policies & Political Economy
ENWC 450 Debates in Conservation Biology
ENWC 453 Community-based Conservation
APEC 100 Sustainable Development
APEC 406 Agricultural and Natural Resource Policy
APEC 444 Economics of Environmental Management
APEC 450 Topics in Environmental Law
GEOG235 Conservation of Natural Resources
GEOG 236 Conservation: Global Issues
PHIL 448 Environmental Ethics
POSC 350 Politics and the Environment

ELECTIVES

Beyond required courses, sufficient credits must be taken to meet the minimum credits required for the degree. Calculus, organic chemistry, biochemistry, geographic information systems, and physics are strongly recommended. Only two credits of BHAN 120 activity or performing music may be counted toward the degree.

CREDITS TO TOTAL A MINIMUM OF 124

ROUTING AND AUTHORIZATION: (Please do not remove supporting documentation.)

Department Chairperson _____ Date _____

Dean of College _____ Date _____

Chairperson, College Curriculum Committee _____ Date _____

Chairperson, Senate Com. on UG or GR Studies _____ Date _____

Chairperson, Senate Coordinating Com. _____ Date _____

Secretary, Faculty Senate _____ Date _____

Date of Senate Resolution _____ Date to be Effective _____

Registrar _____ Program Code _____ Date _____

Vice Provost for Academic Affairs & International Programs _____ Date _____

Provost _____ Date _____

Board of Trustee Notification _____ Date _____

Revised 02/09/2009 /khs

Current Program

DEGREE: BACHELOR OF SCIENCE
MAJOR: WILDLIFE CONSERVATION

CURRICULUM CREDITS

See University and College requirements.

MAJOR REQUIREMENTS

A minimum grade of C- is required for all ENWC credits used to satisfy departmental requirements.

Professional Studies

APEC 135 (or equivalent) Intro to Data Analysis 3

MATH 115, MATH 221, or MATH 241 3-4

BISC 207/BISC 208 Introductory Biology I and II 8

BISC 302 General Ecology 3

CHEM 103/CHEM 104 General Chemistry 8

ENWC 165 New Student Seminar 1

ENWC 201 Wildlife Conservation and Ecology 3

ENWC 205 Elements of Entomology 3

ENWC 325 Wildlife Management 3

ENWC 413 Wildlife Policy and Administration 3

ENWC 416 Wildlife Habitat Management 3

ENWC 456 Conservation Biology 3

ENWC 415 Wildlife Research Techniques 3

ENWC 418 Ornithology 3

ENWC 425 Mammalogy 3

ENWC 465 Senior Capstone Experience 1

ECON 151 Introduction to Microeconomics: Prices and Markets 3

or

APEC 150 Economics of Agriculture and Natural Resources 3

APEC 408 Research Methods I 3

or

STAT 200 Basic Statistical Practice 3

PLSC 101 Botany I 4

or

PLSC 201 Botany II 4

PLSC 204 Introduction to Soil Science 3

PLSC 212 Woody Landscape Plants 4

or

PLSC 214 Indigenous Woody Plants of Eastern United States 4

or

PLSC 404 Plant Taxonomy 3

GROUP I: 6 credits from the following 27

ANFS 140 Functional Anatomy of Domestic Animals

ANFS 251 Animal Nutrition

ANFS 300 Principles of Animal and Plant Genetics

ANFS 310 Animal and Plant Genetics Laboratory

ANFS 332 Introduction to Animal Diseases

BISC 300 Introduction to Microbiology

BISC 305 Cell Physiology

BISC 306 General Physiology

BISC 312 Field Ecology

BISC 442 Vertebrate Morphology

BISC 480 Vertebrate Natural History

BISC 495 Evolution

ENWC 214 Apiology and Apiculture

ENWC 215 Entomology Laboratory

ENWC 224 Apiology and Apiculture Laboratory

ENWC 314 Comparative Terrestrial and Marine Ecology

ENWC 405 Insect Structure and Function

ENWC 406 Insect Identification – Taxonomy

ENWC 408 Insect Field Taxonomy

ENWC 410 Medical, Veterinary, and Forensic Entomology

ENWC 411 Insect Pest Management

ENWC 419 Biological Control

ENWC 424 Herpetology

Proposed Changes to the Program

Wildlife Ecology and Conservation

ENWC 465 Senior Capstone Experience 1

or

UNIV 402 Senior Thesis (requires completed thesis) 3

STAT 200 Basic Statistical Practice 3

PLSC 101 Botany I 3

or

PLSC 201 Botany II 4

ENWC 435 Population Ecology
ENWC 444 Conservation of Tropical Biodiversity
ENWC 452 Conservation of African Wildlife
ENWC 620 Behavioral Ecology

GROUP II: 9 credits from the following 11

At least one of the following:

AGRI 212 Oral Communication in Agriculture and Natural Resources

COMM 212 Oral Communication in Business

COMM 350 Public Speaking

LEAD 209 Presentation Strategies

THEA 204 Introduction to Voice and Speech

At least one of the following:

ENGL 301 Expository Writing

ENGL 307 News Writing and Editing

ENGL 309 Feature and Magazine Writing

ENGL 312 Written Communications in Business

ENGL 410 Technical Writing

UNIV 402 Senior Thesis (requires completed thesis)

ADD to written commutation options.

ENGL 413 Topics in Professional Writing 3

GROUP III: 3 credits from the following 12

ENEP 410 Political Economy of Environment

ENEP 426 Climate Change: Science, Policies & Political Economy

ENWC 450 Debates in Conservation Biology

ENWC 453 Community-based Conservation

APEC 100 Sustainable Development

APEC 406 Agricultural and Natural Resource Policy

APEC 444 Economics of Environmental Management

APEC 450 Topics in Environmental Law

GEOG235 Conservation of Natural Resources

GEOG 236 Conservation: Global Issues

PHIL 448 Environmental Ethics

POSC 350 Politics and the Environment

ELECTIVES

Beyond required courses, sufficient credits must be taken to meet the minimum credits required for the degree.

Calculus, organic chemistry, biochemistry, geographic information systems, and physics are strongly recommended. Only two credits of BHAN 120 activity or performing music may be counted toward the degree.

CREDITS TO TOTAL A MINIMUM OF 124

From: [Ernest, John Richard](#)
To: [Bowman, Jacob L](#)
Cc: [Miller, George \(miller@english.udel.edu\)](mailto:miller@english.udel.edu)
Subject: RE: Permission to list courses
Date: Wednesday, October 16, 2013 1:44:02 PM

Dear Jake,

I don't see any reason why this wouldn't work. I'm copying George Miller, Associate Chair, so that he can chime in if he sees a problem. Otherwise, though, this seems fine.

Best,
John

John Ernest, Chair
Department of English
University of Delaware
208 Memorial Hall
Newark, DE 19716

302-831-3351

From: Bowman, Jacob L
Sent: Wednesday, October 16, 2013 11:35 AM
To: Ernest, John Richard
Cc: Hough-Goldstein, J A
Subject: Permission to list courses

Dear Dr. Ernest,

The Department of Entomology and Wildlife Ecology is proposing a revision to our Ecology and Wildlife Conservation majors. Both majors have a communications group. We would like to add ENGL 413 to the Wildlife Conservation written communications group. We would like to add ENGL 309 and ENGL 413 to the Ecology written communication group. Below is how our communications group would look if you approve these additions.

Group III- Communication Skills Focus
9 Credits: Choose at least one of the following
ENGL 301 Expository Writing 3
ENGL 307 News Writing and Editing 3
ENGL 309 Feature and Magazine Writing 3
ENGL 312 Written Com. In Business 3
ENGL 410 Technical Writing 3
ENGL 413 Topics in Professional Writing 3
UNIV 402 Senior Thesis (Completed) 3

Choose at least one of the following
AGRI 212 Oral Com. In Ag & Natural Resources 3
COMM 212 Oral Com. In Business 3
COMM 350 Public Speaking 3
LEAD 209 Presentation Strategies 3
THEA 204 Intro to Voice and Speech 3

Students only have to complete at most two ENGL courses from this focus. Because of the large number of courses offered in this group, I don't expect large requests for any one course. Are these listings acceptable to your department?

Thanks,
Jake

Jacob L. Bowman, Ph.D.
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Professor of Wildlife Ecology
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