

# 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:** March 1, 2011

**Action:** revise 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** 12S  
(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:** \_\_\_\_\_  
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 416 and ENWC 456 require students to present written and/or oral reports along with ENWC 325 and ENWC 415, which are currently required courses. 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. We propose adding ENWC 416 and ENWC 456 to further strengthen problem-solving and critical thinking skills.

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. We propose adding ENWC 416 and ENWC 456 to permit more opportunities for 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. We propose adding ENWC 413 and ENWC 456, which address questions of ethics and recognizing the responsibilities of self, community, and society at large.

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”)

Center for Energy & Environmental Policy  
Department of Animal and Food Sciences  
Department of Biological Sciences  
Department of Chemistry and Biochemistry  
Department of Food and Resource Economics  
Department of Geography  
Department of Plant and Soil Sciences  
School of Public Policy and Administration

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

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

We propose this revision to increase the exposure of our students to wildlife conservation related topics. We propose moving ENWC406 (Insect Identification - Taxonomy) and ANSC300 (Animal and Plant Genetics) from "Major Requirements" to Group I and replace them with ENWC416 (Wildlife Habitat Management) and ENWC456 (Conservation Biology). ENWC 416 and 456 will provide our students with a stronger foundation in wildlife conservation. We propose adding PLSC201 as an option for the botany requirement so that either PLSC101 (Botany I) or PLSC201 (Botany II) would satisfy the requirement. The change will give the students greater flexibility in achieving their botany requirement. We propose replacing the 3 credit hours of any ENWC course with ENWC 413 (Wildlife Policy and Administration). This course is currently part of Group III but requiring it will ensure that all of our students will have a stronger foundation in policy and administration as it directly relates to wildlife conservation. We propose changing the general chemistry requirement from CHEM101/102 or CHEM103/104 to permit only CHEM103/104. Chemistry 101/102 is being phased out and does not prepare the student for advanced chemistry courses as well as CHEM 103/104. We propose revising Group I by reducing it to 6 credit hours, adding 15 courses to the list of courses, and deleting 3 courses. The reduction in credit hours will allow students greater flexibility to double major or minor in other topics. Reduction in the credits hours will not adversely affect students since we have strengthened the required major courses. We propose deleting 3 courses and adding 15 courses to ensure diversity in the focus areas of terrestrial animals and courses related to their biology. We propose adding one oral communication course to expand the offerings in Group II. We also propose requiring at least one oral and one written communication course to ensure that student gain experience in both forms of communication. We propose adding 5 courses to Group III to expand the offerings in this group. Because we are proposing that ENWC 413, currently part of Group III, be a required course, we propose reducing Group III to 3 credits hours.

### **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

FREC 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

FREC 150 Economics of Agriculture and Natural Resources 3  
FREC 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 2  
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  
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)

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  
FREC 100 Sustainable Development  
FREC 406 Agricultural and Natural Resource Policy  
FREC 444 Economics of Environmental Management  
FREC 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

FREC 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 101/CHEM 102 General Chemistry

or

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 300 Principles of Animal and Plant Genetics 3

or

BISC 403 Genetics and Evolutionary Biology 3

ENWC 325 Wildlife Management 3

ENWC 406 Insect Identification--Taxonomy 3

ENWC 415 Wildlife Research Techniques 3

ENWC 418 Ornithology 3

ENWC 425 Mammalogy 3

ENWC 465 Senior Capstone Experience 1

ENWC credit (may include UNIV 400 or any ENWC course 200-level

or above (except X66 and x68) 3

ECON 151 Introduction to Microeconomics: Prices and Markets 3

or

FREC 150 Economics of Agriculture and Natural Resources 3

FREC 408 Research Methods I 3

or

STAT 200 Basic Statistical Practice 3

PLSC 101 Botany I 4

PLSC 204 Introduction to Soil Science 3

PLSC 212 Woody Landscape Plants 4

or

PLSC 214 Indigenous Woody Plants of Eastern United States 2

or

PLSC 404 Plant Taxonomy 3

GROUP I: 10 credits from the following 10

ANSC 140 Functional Anatomy of Domestic Animals

BISC 300 Introduction to Microbiology

BISC 305 Cell Physiology

BISC 306 General Physiology

BISC 442 Vertebrate Morphology

BISC 480 Vertebrate Natural History

BISC 495 Evolution

BISC 637 Population Ecology

ENWC 310 Animal and Plant Genetics Laboratory

ENWC 408 Insect Field Taxonomy

ENWC 424 Herpetology

ENWC 444 Conservation of Tropical Biodiversity

ENWC 452 Conservation of African Wildlife

MAST 627 Marine Biology

MAST 629 Ichthyology

## Proposed Changes to the Program

CHEM 103/104

CHEM 101/102 no longer permitted

ENWC 456 Conservation Biology 3

ENWC 300 (now ANFS300) and BISC403 moved to Group I

ENWC 416 Wildlife Habitat Management 3

ENWC 406 moved to Group I

ENWC 413 Wildlife Policy and Administration 3

PLSC 101 Botany I or PLSC 201 Botany II

Group I: 6 credits from the following 27

Delete BISC 637

Delete MAST 627

Delete MAST 629

Add ANFS 251 Animal Nutrition  
Add ANFS 300 Principles of Animal and Plant Genetics  
Add ANFS 332 Introduction to Animal Diseases 3  
Add BISC 312 Field Ecology 3  
Add ENWC 214 Apiology and Apiculture 2  
Add ENWC 215 Entomology Laboratory 1  
Add ENWC 224 Apiology and Apiculture Laboratory 1  
Add ENWC 314 Comparative Terrestrial and Marine Ecology 3  
Add ENWC 405 Insect Structure and Function 3  
Add ENWC 406 Insect Identification – Taxonomy 3  
Add ENWC 410 Medical, Veterinary, and Forensic Entomology 3  
Add ENWC 411 Insect Pest Management 3  
Add ENWC 419 Biological Control 3  
Add ENWC 620 Behavioral Ecology 3  
Add ENWC 435 Population Ecology 3

GROUP II: 9 credits from the following 11

*At least one of the following:*

AGRI 212 Oral Communication in Agriculture and Natural Resources 3

COMM 212 Oral Communication in Business 3

COMM 350 Public Speaking

Add LEAD 209 Presentation Strategies 3

THEA 204 Introduction to Voice and Speech 3

*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 Communications in Business 3

ENGL 410 Technical Writing 3

UNIV 402 Senior Thesis (requires completed thesis) 3

GROUP III: 3 credits from the following 12

Delete ENWC 413 from group and becomes it a required course

Add ENEP 410 Political Economy of Environment 3

Add ENEP 426 Climate Change: Science, Policies & Political Economy

Add FREC 100 Sustainable Development

Add FREC 406 Agricultural and Natural Resource Policy 3

Add GEOG235 Conservation of Natural Resources 3

GROUP II: 9 credits from the following 9

AGRI 212 Oral Communication in Agriculture and Natural Resources

COMM 212 Oral Communication in Business

COMM 350 Public Speaking

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

THEA 204 Introduction to Voice and Speech

UNIV 402 Senior Thesis (requires completed thesis)

GROUP III: 6 credits from the following 6

ENWC 413 Wildlife Policy and Administration

ENWC 450 Debates in Conservation Biology

ENWC 453 Community-based Conservation

FREC 444 Economics of Environmental Management

FREC 450 Topics in Environmental Law

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: John Michael Byrne <jbbyrne@UDel.Edu>  
Sent: Wednesday, September 14, 2011 11:15 AM  
To: Jacob L. Bowman  
Subject: Re: Permission to list courses

No problem, Jake. Regards, John

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John Byrne, Director and Phone: (302) 831-8405  
Distinguished Professor of  
Energy and Climate Policy FAX: (302) 831-3098  
Center for Energy &  
Environmental Policy E-mail: jbbyrne@udel.edu  
University of Delaware Website: http://ceep.udel.edu  
Newark, DE 19716-7301 USA Bio:  
http://ceep.udel.edu/Bios/Byrne.pdf  
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On Wed, 14 Sep 2011, Jacob L. Bowman wrote:

> Dr. Byrne,  
>  
> The Department of Entomology and Wildlife Ecology is proposing a  
> revision to our Wildlife Conservation major. Part of this revision is  
> updating several of the groups required by the major. We would like  
> to list ENEP 410 and 426 as part of our Group III along with 11 other  
> courses. Students only have to complete one course from this group.  
> Because of the number of courses offered in this group, I don't expect  
> large requests for any one course in this group. Is this listing  
> acceptable to your department?  
>  
> Sincerely,  
>  
> Jake  
>  
>  
> \_\_\_\_\_  
>  
> Jacob L. Bowman, Ph.D.  
> Associate Professor Wildlife Ecology  
> 245 Townsend Hall  
> Department of Entomology and Wildlife Ecology University of Delaware  
> Newark, DE 19716-2160  
> Office: (302) 831-4621  
> Fax: (302) 831-8889  
> Email: jlb Bowman@udel.edu<mailto:jlb Bowman@udel.edu>  
> \_\_\_\_\_  
>  
>  
>



**From:** Kniel, Kali  
**Sent:** Wednesday, September 21, 2011 9:14 AM  
**To:** Jacob L. Bowman; Gelb, Jack  
**Subject:** RE: Permission to list courses

Hi Jake,

This is fine with ANFS.

An issue was raised that ANFS students have difficulties getting the Wildlife minor. Could we talk about how to make that easier for them. (So this is not really a bargain, but can we talk about this issue sometime this semester.)

Thanks,  
Kali

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**From:** Jacob L. Bowman  
**Sent:** Wednesday, September 21, 2011 8:38 AM  
**To:** Gelb, Jack  
**Cc:** Kniel, Kali  
**Subject:** RE: Permission to list courses

Jack and Kali,

I was wondering if you had a chance to consider my request for listing courses? Let me know if you have any questions. I'm happy to meet to discuss these courses with one or both of you.

Take care,

Jake

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**From:** Gelb, Jack  
**Sent:** Tuesday, September 13, 2011 8:47 AM  
**To:** Jacob L. Bowman  
**Cc:** Kniel, Kali  
**Subject:** RE: Permission to list courses

Hi Jake,

Thank you for your e-mail.

I will ask Kali, who chairs our anfs courses and curriculum committee, to respond.

Jack

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**From:** Jacob L. Bowman  
**Sent:** Monday, September 12, 2011 8:18 PM  
**To:** Gelb, Jack  
**Subject:** Permission to list courses

Jack,

The Department of Entomology and Wildlife Ecology is proposing a revision to our Wildlife Conservation major. Part of this revision is updating several of the groups required by the major. We would like to list ANFS 251, ANFS 300, and ANFS 332 as part of our Group I along with 24 other courses. ANFS 300 is currently a required course so the requests for this course will decrease. We have several students double majoring in Animal Science so permitting ANFS 251 and ANFS 332 would allow them to double count required courses. Because of the large number of courses in Group I, I expect the pressure on any one course to be very low. Is this listing acceptable to your department?

Sincerely,

Jake

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Jacob L. Bowman, Ph.D.  
Associate Professor Wildlife Ecology  
245 Townsend Hall  
Department of Entomology and Wildlife Ecology  
University of Delaware  
Newark, DE 19716-2160  
Office: (302) 831-4621  
Fax: (302) 831-8889  
Email: [jlbowman@udel.edu](mailto:jlbowman@udel.edu)

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**From:** David C. Usher <dusher@UDel.Edu>  
**Sent:** Sunday, September 18, 2011 8:39 PM  
**To:** Jacob L. Bowman; 'Randall Duncan'  
**Cc:** 'David W. Smith'  
**Subject:** RE: Permission to list a course

Jake,

We have no complaint as long as it is only one student. This is a heavily subscribed course and we can reserve one spot but only in the fall. In addition you must email Dave Smith before spring registration to let him know who the student is.

--Dave

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**From:** Jacob L. Bowman [<mailto:jlbowman@UDel.Edu>]  
**Sent:** Tuesday, September 13, 2011 7:57 AM  
**To:** Randall Duncan  
**Cc:** 'David C. Usher'  
**Subject:** RE: Permission to list a course

Randy,

Thank you for your consideration. If either Dave or you have any questions, just let me know.

Take care,

Jake

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**From:** Randall Duncan [<mailto:rluncan@UDel.Edu>]  
**Sent:** Tuesday, September 13, 2011 7:46 AM  
**To:** Jacob L. Bowman  
**Cc:** 'David C. Usher'  
**Subject:** RE: Permission to list a course

Hi Jake,

I'm passing this on to my Associate Chair, David Usher. We'll go over the request and get back to you by tomorrow.

Randy

Randall L. Duncan, Ph.D.  
Professor and Chairman  
Department of Biological Sciences  
University of Delaware  
Newark, DE 19716  
(Tel) 302.831.4296  
(Fax) 302.831.1033

*"After a certain high level of technical skill is achieved, science and art tend to coalesce in aesthetics, plasticity, and form. The greatest scientists are always artists as well."  
Albert Einstein*

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**From:** Jacob L. Bowman [<mailto:jlbowman@UDel.Edu>]  
**Sent:** Monday, September 12, 2011 7:48 PM  
**To:** [rlduncan@udel.edu](mailto:rlduncan@udel.edu)  
**Subject:** Permission to list a course

Dr. Duncan,

The Department of Entomology and Wildlife Ecology is proposing a revision to our Wildlife Conservation major. Part of this revision is updating several of the groups required by the major. We would like to list BISC 312 as part of our Group I along with 26 other courses. Because of the number of courses in this group, I suspect that fewer than one student per year will request the course. Is this listing acceptable to your department?

Sincerely,

Jake

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Jacob L. Bowman, Ph.D.  
Associate Professor Wildlife Ecology  
245 Townsend Hall  
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University of Delaware  
Newark, DE 19716-2160  
Office: (302) 831-4621  
Fax: (302) 831-8889  
Email: [jlbowman@udel.edu](mailto:jlbowman@udel.edu)

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**From:** Klaus Theopold <theopold@UDel.Edu>  
**Sent:** Tuesday, September 13, 2011 10:22 AM  
**To:** Jacob L. Bowman  
**Cc:** John L. Burmeister  
**Subject:** Re: Permission to list courses

Jake,

Congratulations on lifting the bar a bit. I agree with you and your colleagues that CHEM 103/104 will be better preparation for your majors if they aspire to an understanding of chemistry and related sciences.

Regarding the practical consequences of your decision, I should say that we have recently experienced saturation in CHEM 103, which is capped at a capacity of 1200 students during the fall semester, due to available laboratory space. If your students have already been taking this sequence, then the change should not create additional problems. However, in the spirit of full disclosure I wanted you to be aware that under the current enrollment scenarios immediate access to CHEM 103 may not always be guaranteed. All the same, we teach the class fall, winter, spring and summer, so with some flexibility your majors should be able to fulfill this requirement.

Regards, Klaus

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Klaus H. Theopold, Professor and Chair  
Department of Chemistry and Biochemistry

On Sep 12, 2011, at 7:54 PM, Jacob L. Bowman wrote:

Dr. Theopold,

The Department of Entomology and Wildlife Ecology is proposing a revision to our Wildlife Conservation major. Part of this revision is updating courses. Our current curriculum permits either CHEM101/102 or CHEM 103/104. We would like to change this requirement to only CHEM 103/104. We think this requirement would better prepare our students for BISC 207/208 and allow those interested in chemistry to be better prepared for more advanced chemistry courses. The last few years we have attempted to place students in CHEM103/104 so I don't expect any additional pressure on CHEM 103/104. Is this listing acceptable to your department?

Sincerely,

Jake

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Jacob L. Bowman, Ph.D.  
Associate Professor Wildlife Ecology  
245 Townsend Hall  
Department of Entomology and Wildlife Ecology  
University of Delaware  
Newark, DE 19716-2160  
Office: (302) 831-4621  
Fax: (302) 831-8889  
Email: [jlbowman@udel.edu](mailto:jlbowman@udel.edu)

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**From:** Titus Awokuse  
**Sent:** Tuesday, September 13, 2011 5:00 PM  
**To:** Jacob L. Bowman  
**Subject:** Re: Permission to list courses

Jake,  
It's ok to list FREC 100 and 406 as part of the Group III requirement in your major.  
In FREC, we are happy to continue to partner with your growing program in Wildlife Conservation.

Regards,

TOA

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Titus O. Awokuse  
Professor and Chair  
Dept. of Food & Resource Economics  
University of Delaware  
Newark, DE 19716  
Phone: 302-831-1323

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**From:** "Jacob L. Bowman" <[jlbowman@udel.edu](mailto:jlbowman@udel.edu)>  
**Date:** Mon, 12 Sep 2011 19:58:48 -0400  
**To:** Titus Awokuse <[kuse@udel.edu](mailto:kuse@udel.edu)>  
**Subject:** Permission to list courses

Titus,

The Department of Entomology and Wildlife Ecology is proposing a revision to our Wildlife Conservation major. Part of this revision is updating several of the groups required by the major. We would like to list FREC 100 and FREC 406 part of our Group III along with 11 other courses. Students only have to complete one course from this group. Most of our student have been taking FREC100 the last few years so I don't expect additional pressure on these courses. Is this listing acceptable to your department?

Sincerely,

Jake

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Jacob L. Bowman, Ph.D.  
Associate Professor Wildlife Ecology  
245 Townsend Hall  
Department of Entomology and Wildlife Ecology  
University of Delaware

Newark, DE 19716-2160  
Office: (302) 831-4621  
Fax: (302) 831-8889  
Email: [jlbowman@udel.edu](mailto:jlbowman@udel.edu)

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**From:** Tracy Deliberty <tracyd@UDel.Edu>  
**Sent:** Wednesday, September 21, 2011 8:59 AM  
**To:** Jacob L. Bowman  
**Subject:** Re: Permission to list course

Jacob,

That is just fine with Geography. We will offer Geog235 once a year at a minimum, if not each semester. Let me know if you require additional info. Tracy DeLiberty

On Mon, Sep 12, 2011 at 8:03 PM, Jacob L. Bowman <[jlbowman@udel.edu](mailto:jlbowman@udel.edu)> wrote:

Dr. DeLiberty,

The Department of Entomology and Wildlife Ecology is proposing a revision to our Wildlife Conservation major. Part of this revision is updating several of the groups required by the major. We would like to list GEOG 235 as part of our Group III along with 11 other courses. Students only have to complete one course from this group, so I don't expect much pressure on this course. Is this listing acceptable to your department?

Sincerely,

Jake

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Jacob L. Bowman, Ph.D.

Associate Professor Wildlife Ecology

245 Townsend Hall

Department of Entomology and Wildlife Ecology

University of Delaware

Newark, DE 19716-2160

Office: [\(302\) 831-4621](tel:(302)831-4621)

Fax: [\(302\) 831-8889](tel:(302)831-8889)

Email: [jlbowman@udel.edu](mailto:jlbowman@udel.edu)

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**From:** Blake Meyers <meyers@dbi.udel.edu>  
**Sent:** Monday, September 12, 2011 8:30 PM  
**To:** Jacob L. Bowman  
**Cc:** Dave Frey  
**Subject:** Re: Permission to list a course

Jake,  
This sounds fine to me - while the content is a bit different, I don't see why PLSC201 shouldn't also suffice.

best wishes,  
Blake

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**From:** "Jacob L. Bowman" <[jlbowman@udel.edu](mailto:jlbowman@udel.edu)>  
**To:** [MEYERS@DBI.UDEL.EDU](mailto:MEYERS@DBI.UDEL.EDU)  
**Cc:** "Dave Frey" <[dfrey@udel.edu](mailto:dfrey@udel.edu)>  
**Sent:** Monday, September 12, 2011 8:11:50 PM  
**Subject:** Permission to list a course

Blake,

The Department of Entomology and Wildlife Ecology is proposing a revision to our Wildlife Conservation major. Part of this revision is updating courses. Our current curriculum permits PLSC 101 for our botany requirement. We would like to change this requirement to PLSC 101 or PLSC 201. We think this change would allow our student greater flexibility in fulfilling their botany requirement. I have discussed this change with Dave Frey so I copied him in case he has anything to add. Is this listing acceptable to your department?

Sincerely,

Jake

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Jacob L. Bowman, Ph.D.  
Associate Professor Wildlife Ecology  
245 Townsend Hall  
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**From:** Aristigueta, Maria P. <Aristigueta@oet.udel.edu>  
**Sent:** Tuesday, September 13, 2011 3:10 PM  
**To:** Jacob L. Bowman  
**Subject:** RE: Permission to list courses

Jake, no problem with the LEAD course. However, ENEP is not in the School, they are in the College of Engineering. Please contact John Byrne for the ENDP courses.  
Best wishes, Maria

Maria P. Aristigueta  
Professor and Director  
School of Public Policy and Administration  
University of Delaware  
(302) 831-4570  
<http://www.udel.edu/suapp/>  
<http://www.ipa.udel.edu/directory/homepages/aristigueta.html>

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**From:** Audrey Helfman [<mailto:ahelfman@udel.edu>]  
**Sent:** Tuesday, September 13, 2011 10:42 AM  
**To:** Aristigueta, Maria P.  
**Subject:** Re: Permission to list courses

Hi Maria,  
Yes, Wildlife Conservation majors can have access to LEAD 209.  
Audrey

On Sep 13, 2011, at 8:55 AM, Aristigueta, Maria P. wrote:

Are you ok with this?

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**From:** Jacob L. Bowman [<mailto:jlbowman@UDel.Edu>]  
**Sent:** Monday, September 12, 2011 8:30 PM  
**To:** Aristigueta, Maria P.  
**Subject:** Permission to list courses

Dr. Aristigueta,

The Department of Entomology and Wildlife Ecology is proposing a revision to our Wildlife Conservation major. Part of this revision is updating several of the groups required by the major. We would like to list LEAD 209 as part of our Group II along with 11 other courses. Student have to complete 3 courses from this group and we have been allowing LEAD 209 as a substitute for several year. I anticipate less than 5

requests per year. We would also like to list ENEP 410 and 426 as part of our Group III along with 11 other courses. Students only have to complete one course from this group. Because of the number of courses offered in this group, I don't expect large requests for any one course in this group. Is this listing acceptable to your department?

Sincerely,

Jake

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