

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: Judith Hough-Goldstein phone number 831-2529

Department: Entomology & Wildlife Ecology email address jhough@udel.edu

Action: add honors degree for new Ecology 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 11S
(use format 04F, 05W)

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

Proposed change leads to the degree of: Honors BS - Ecology
(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: _____
(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")

We propose cross-listing BISC 312, Field Ecology, with ENWC 312, and either teaching multiple sections or co-teaching the course with faculty drawn from both departments. This is necessary because the current BISC 312 is already oversubscribed. No other new or revised courses are proposed.

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 requires students to take at least one written and one oral communication course, with skills reinforced in the Senior Capstone Experience. Numerous courses are required that strengthen quantitative reasoning and the use of information technology, including MATH 241, CHEM 103-104, ENWC/BISC 635, and a statistics course. Several courses in the curriculum require students to present written and/or oral reports.

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

Problem solving is emphasized in many of the required science courses, especially those with laboratories. Students will apply problem-solving and critical thinking skills in the Senior Capstone Experience (ENWC 465).

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.

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

Environmental issues and conservation of biodiversity and wild lands are extremely important in the study of ecology and many of the courses in the major address these issues. The Senior Capstone Experience (ENWC 465) explicitly addresses controversial issues related to entomology and wildlife conservation.

5. *Understand the diverse ways of thinking that underlie the search for knowledge in the arts, humanities, sciences and social sciences.*

This major addresses primarily the search for knowledge in the sciences, with electives and breadth requirements addressing the other areas.

The last 5 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")

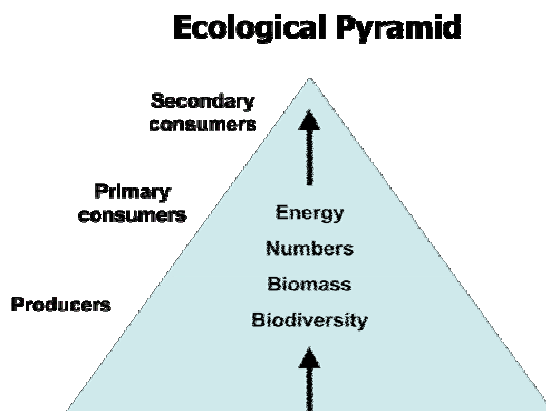
Department of Biological Sciences. This major is intended to be an interdisciplinary major with Biological Sciences, housed in the Department of Entomology & Wildlife Ecology. If the new major is approved, the Department of Biological Sciences will deactivate the current Ecology and Organismic Biology concentration under the BS in Biological Sciences, and this major will take its place. The Environmental Science Program is also potentially impacted, since it addresses ecology in addition to climatology and geology. Letters of support from both programs are attached.

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

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

Ecology is the interdisciplinary scientific study of the interactions among organisms and their environment. As such, it is concerned with the network of relationships among small-scale biological systems such as organisms, complex interacting systems such as ecosystems, and the physical and other non-biological aspects of their environments. Consequently, much of the science of ecology follows an organizational flow diagram of a trophic pyramid where energy flows through the system affecting the numbers, biomass, and biodiversity of species. The largest amount of energy, numbers, biomass, and biodiversity exists at lower trophic levels of producers and primary consumers; whereas higher trophic levels of secondary consumers exhibit lower amounts of energy, numbers, biomass, and biodiversity. To provide a solid education in ecology it is important that students learn principles and relationships within the ecological pyramid, including:

1. The movement of materials and energy through living communities, including the basic understanding of life processes
2. The distribution and diversity of both producers and consumers
3. The ecological interactions among organisms at different trophic levels.



The Ecology major will be interdisciplinary, with the Department of Biological Sciences supplying training in the basic tenets of biology, and the Department of Entomology and Wildlife Ecology offering courses related to the diversity, behavior, and ecological interactions among organisms. The Department of Biological Sciences currently offers a concentration in Ecology and Organismic Biology, but over time has reduced the number of its faculty specializing in this area, while Entomology and Wildlife Ecology has increased its faculty size and course offerings in ecological topics. Both departments agree on the importance of Ecology as a specialty area within biological sciences, which underpins applied aspects of environmental sciences, wildlife studies, and insect pest management.

This major will be distinct from the Environmental Sciences major, which is more broadly interdisciplinary, encompassing geological and climatological aspects of environmental issues, and from the Wildlife Conservation major, which focuses on the application of ecological principles for conservation and management of ecosystems and species. The Ecology major would provide a broad background that students could apply to many career directions including conservation biology, wetland management, agriculture, forestry, fisheries, city planning (urban ecology), and community health. Upon completion of the major, students would be competitive for graduate programs in ecology and prepared to seek certification in Ecology by the Ecological Society of America. To assist with career development we also propose classes to improve communication and research skills including speaking, writing, and statistics. We estimate approximately 10 students a year (totaling 40 students) would participate in this major. The major will be housed in the Department of Entomology & Wildlife Ecology within the College of Agriculture and Natural Resources, and will be a Bachelor of Science program subject to the College's Bachelor of Science Core Curriculum in addition to University and specific major requirements.

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.)

HONORS BACHELOR OF SCIENCE: ECOLOGY

The recipient of this degree must complete:

1. All requirements for the Bachelor of Science: Ecology.

2. All of the University's requirements for the [Honors Baccalaureate](#) degree. For the Ecology major, all BISC and ENWC courses taken as Honors or taken at the 600-level or higher will count toward the 12 Honors credits required in the major and/or in collateral disciplines.

DEGREE: BACHELOR OF SCIENCE
MAJOR: ECOLOGY

CURRICULUM

CREDITS

MAJOR REQUIREMENTS

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

Foundation Courses

MATH 241 Analytic Geometry and Calculus A (bio section available and preferable)	4
CHEM 103 General Chemistry	4
CHEM 104 General Chemistry	4
BISC 207 Introductory Biology I	4
BISC 208 Introductory Biology II	4
FREC 408 Statistical Research Methods OR STAT 200 Basic Statistical Practice OR BISC 643 Biological Data Analysis	3
TOTAL	23

1. The movement of materials and energy through living communities including basic understanding of life processes

CHEM 321 Organic Chemistry	4
CHEM 322 Organic Chemistry	4
PHYS 201 Introductory Physics I	4
PHYS 202 Introductory Physics II	4
BISC 403 Genetic and Evolutionary Biology	3
BISC 495 Evolution	3
Earth Processes - Select 2 of the following:	
GEOG 101 Physical Geography: Climatic Processes (3)	6-8
GEOG 106 Physical Geography: Land Surface Processes (3)	
GEOG 220 Meteorology (3)	
GEOG 342 Bioclimatology (3)	
GEOL 107 General Geology (4)	
GEOL 113 Earth Science (4)	
PLSC 204 Introduction to Soil Science (3)	
TOTAL	28-30

2. The distribution and diversity of both producers and consumers

Course Name and Number	
Producers -	
PLSC 201 Botany II	4
Select 1 of the following:	
PLSC 214 Indigenous Woody Plants of the Eastern U.S. (4)	3-4
PLSC 404 Plant Taxonomy (3)	
Consumers - Select 2 of the following:	6
ENWC 406 Insect Identification – Taxonomy (3) (requires ENWC 205 prerequisite)	
ENWC 418 Ornithology (3)	
ENWC 424 Herpetology (3)	
ENWC 425 Mammalogy (3)	

MAST 630 Ichthyology (3)	
TOTAL	13-14

3. Ecological interactions among organisms at different trophic levels

Course Name and Number	
BISC 302 General Ecology	3
BISC/ENWC 312 Field Ecology	3
ENWC/BISC 635 Population Ecology (CURRENTLY WILDLIFE POPULATION DYNAMICS, TO BE RENAMED)	3
Select 2 of the following:	
BISC 306 General Physiology (3)	6-7
BISC 317 Tropical Ecology (3)	
BISC 318 Tropical Amphibians and Reptiles (3)	
BISC 321 Environmental Biology (3)	
BISC 415/615 Vertebrate Developmental Morphology (3)	
BISC 442 Vertebrate Morphology (4)	
BISC 480 Vertebrate Natural History (3)	
BISC 641 Microbial Ecology (3) (requires BISC 300 prerequisite)	
ENWC 419 Biological Control (3)	
ENWC 444/BISC 440 Conservation of Tropical Biodiversity (3)	
ENWC 452 Conservation of African Wildlife (3)	
ENWC 453 Community-Based Conservation (3)	
ENWC 456 Conservation Biology (3)	
ENWC 620 Behavioral Ecology (3)	
ENWC/MAST 314 Comparative Terrestrial and Marine Ecology (3)	
MAST 421/621 Coastal Field Biology (3)	
MAST 427/627 Marine Biology (3)	
MAST 442 Ecology and Evolution of Coral Reefs (3)	
MAST 451/651 Marine Invertebrate Diversity (3)	
MAST 618 Marine Microbial Ecology (3)	
TOTAL	15-16

Communication Skills:

Course Name and Number	Credit Hours
Select 1 of the following: ENGL 301 Expository Writing ENGL 307 News Writing & Editing ENGL 312 Written Com. in Business ENGL 410 Technical Writing UNIV 402 Senior Thesis (thesis must be completed)	3
Select 1 of the following: AGRI 212 Oral Com. in Ag & Natural COMM 212 Oral Com. in Business COMM 350 Public Speaking LEAD 209 Presentation Strategies THEA 204 Intro to Voice and Speech	3
ENWC 465 Senior Capstone Experience	1
TOTAL	7

Additional University and College Requirements:

(Parentheses indicate credits that may be earned from requirements above)

UNIVERSITY REQUIREMENTS

ENGL 110 Critical Reading and Writing (minimum grade of C-)	3
First Year Experience (FYE) – ENWC 165, New Student Seminar	1
Breadth Requirements	12 (3)
Creative Arts and Humanities	3
History and Cultural Change	3
Social and Behavioral Sciences	3
Math, Nat. Sci., and Technol. (3, satisfied by BISC 207, among others)	
Discovery Learning Experience (satisfied by BISC 312, Field Ecology)	(3)
Multi-cultural Course	3

COLLEGE BREADTH REQUIREMENTS

Agricultural and Natural Resources	9 (6)
Satisfied by PLSC 201, possibly FREC 408 or STAT 200	
Physical Science	(8)
Satisfied by CHEM 103-104	

Total: 39 (20)**Additional Electives: to reach 124 cr. (minimum number of required credits: 105)****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 10/23/2007 /khs



DEPARTMENT OF GEOGRAPHY

University of Delaware
Newark, Delaware 19716-2541
Ph: 302/831-2294/2295
Fax: 302/831-6654

Date: 22 June 2010

Judy Hough-Goldstein, Professor
Department of Entomology & Wildlife Ecology
531 South College Avenue
University of Delaware, Newark DE 19716-2160

Dear Judy,

As Director of UD's Environmental Science and Environmental Studies Programs, I write in strong support of the proposed interdisciplinary Ecology major. It is my belief that the new Ecology major will be complementary to our existing environmental programs. Whereas the Ecology and Organismic Biology concentration of the Environmental Science Program provides students with an interdisciplinary ecological background and how it interfaces with Earth's other spheres, the new Ecology major will emphasize the movement of energy and matter through the biosphere, the distribution and diversity of organisms, and ecological interactions. Thus, it is important to note that the intellectual thought and practice of ecology is clearly distinct from that of environmental science, equipping students with different skills sets to solve different types of problems. I opine that the creation of the new Ecology major is long overdue and will fill an important void in the undergraduate curriculum.

I wish you and participating faculty the very best in the approval, launch, and implementation of this important major.

Yours sincerely,

A handwritten signature in blue ink, appearing to read "Delphis F. Levia".

Delphis F. Levia, Ph.D.
Director, Environmental Science and Environmental Studies Programs
Associate Professor of Ecohydrology

From: Randall Duncan [rlduncan@UDel.Edu]
Sent: Monday, July 12, 2010 10:56 AM
To: Hough-Goldstein, Judith
Cc: herson@UDel.Edu; 'Doren, Douglas J.'; 'Watson, George H.'
Subject: Ecology Interdisciplinary program

Dear Dr. Hough-Goldstein,

Our Undergraduate Programs Committee has reviewed the proposed interdisciplinary program in Ecology between the Department of Biological Sciences and the Department of Entomology and Wildlife Ecology and believes that this integrative program will strengthen the ecology program here. The Department of Biological Sciences faculty has unanimously approved the proposal as well. You have our full support to move ahead with the process of establishing this program.

I look forward to working with your department as this interdisciplinary program is established.

Best regards,
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

From: Perse, Elizabeth M. [mailto:eperse@art-sci.udel.edu]
Sent: Monday, October 11, 2010 2:29 PM
To: Hough-Goldstein, Judith
Cc: Elizabeth Perse; Reeser, Susan D.
Subject: RE: Permission to list courses

The Department of Communication handle a few more students in COMM212. COMM350 is rarely open to non-majors.

Elizabeth M. Perse
Professor and Chair
Department of Communication
University of Delaware
Newark, DE 19716
302.831.8041
www.udel.edu/communication

From: Hough-Goldstein, Judith [mailto:jhough@UDel.Edu]
Sent: Monday, October 11, 2010 2:23 PM
To: eperse@udel.edu
Subject: Permission to list courses

Dear Dr. Perse,

We are proposing a new major, Ecology, which is intended to be an interdisciplinary major with Biological Sciences, housed in the Department of Entomology & Wildlife Ecology. If the new major is approved, the Department of Biological Sciences will deactivate the current Ecology and Organismic Biology concentration under the BS in Biological Sciences, and this major will take its place. We estimate approximately 10 students a year (totaling 40 students) would participate in this major, but since these students might otherwise have majored in Biology, the net increase might not be that much.

We would like to require students in this major to take one course from among the following: COMM 212, COMM 350, AGRI 212, LEAD 209, and THEA 204. Is this acceptable to your department?

Thanks,
Judy Hough-Goldstein

Judy Hough-Goldstein, Professor
Dept. Entomology & Wildlife Ecology

From: Ilvento, Tom
Sent: Monday, October 11, 2010 3:15 PM
To: Hough-Goldstein, Judith
Subject: Re: Permission to list courses

That would be acceptable.

twi

Thomas W. Ilvento
Professor and Chair
213 Townsend Hall
Newark, DE 19717
Office: 302-831-6773
Fax: 302-831-6243
Cell: 302-388-0971

From: J Hough-Goldstein <jhough@UDel.Edu>
Date: Mon, 11 Oct 2010 13:33:34 -0400
To: Thomas W Ilvento <ilvento@udel.edu>
Subject: Permission to list courses

Tom,

We are proposing a new major, Ecology, which is intended to be an interdisciplinary major with Biological Sciences, housed in the Department of Entomology & Wildlife Ecology. If the new major is approved, the Department of Biological Sciences will deactivate the current Ecology and Organismic Biology concentration under the BS in Biological Sciences, and this major will take its place. We estimate approximately 10 students a year (totaling 40 students) would participate in this major, but since these students might otherwise have majored in Biology, the net increase might not be that much.

We would like to list FREC 408 or STAT 200 (or BISC 643) as a requirement for this new major. Is that acceptable to your department?

Thanks,
Judy

Judy Hough-Goldstein, Professor
Dept. Entomology & Wildlife Ecology

From: Klaus Theopold [mailto:theopold@UDel.Edu]
Sent: Monday, October 11, 2010 4:55 PM
To: Hough-Goldstein, Judith
Cc: John L. Burmeister
Subject: Re: Permission to list courses

Dear Judy,

It sounds like your proposal is essentially neutral in terms of student numbers, as your new major replaces a BISC concentration. Under those circumstances, we should be able to accommodate your plans.

The real bottleneck - if any - will be CHEM 321/322, as our laboratory facilities for that course are severely constrained. We are hoping to renovate those labs in the near future, and there may be temporary inconveniences, but I assume your new majors won't hit that point until 2 years hence at the earliest.

You have our blessing. Much success.

Regards, Klaus

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

On Oct 11, 2010, at 1:33 PM, Hough-Goldstein, Judith wrote:  
[I should note that in addition to CHEM 103-104, the new major also lists CHEM 321-322 as a requirement.](#)  
JHG

**From:** Hough-Goldstein, Judith  
**Sent:** Monday, October 11, 2010 1:21 PM  
**To:** 'theopold@udel.edu'  
**Subject:** Permission to list courses

Dear Dr. Theopold,

We are proposing a new major, Ecology, which is intended to be an interdisciplinary major with Biological Sciences, housed in the Department of Entomology & Wildlife Ecology. If the new major is approved, the Department of Biological Sciences will deactivate the current Ecology and Organismic Biology concentration under the BS in Biological Sciences, and this major will take its place. We estimate approximately 10 students a year (totaling 40 students) would participate in this major, but since these students might otherwise have majored in Biology, the net increase might not be that much.

We would like to list CHEM 103-104 as a requirement for this new major. Is that acceptable to the Chemistry department?

Thanks,  
Judy Hough-Goldstein

**From:** Blake Meyers [mailto:meyers@dbi.udel.edu]  
**Sent:** Monday, October 11, 2010 6:40 PM  
**To:** Hough-Goldstein, Judith  
**Cc:** Frett, John; Dave Frey  
**Subject:** Re: Permission to list courses

Dear Judy,

This sounds fine for me, but I've cc'ed Dave and John in case they have additional suggestions or questions or alternative ideas. PLSC 204 is in a bit of flux since Dave Hansen has left, but we'll hopefully have at least one and perhaps two new faculty in the area of soil science to teach this in the near future.

best wishes,  
Blake

On 10/11/2010 7:39 PM, Hough-Goldstein, Judith wrote:  
Dear Blake,

We are proposing a new major, Ecology, which is intended to be an interdisciplinary major with Biological Sciences, housed in the Department of Entomology & Wildlife Ecology. If the new major is approved, the Department of Biological Sciences will deactivate the current Ecology and Organismic Biology concentration under the BS in Biological Sciences, and this major will take its place. We estimate approximately 10 students a year (totaling 40 students) would participate in this major, but since these students might otherwise have majored in Biology, the net increase might not be that much.

We would like to list PLSC 201 as a requirement for this major, along with a choice of PLSC 214 or 404 (students would select one). In addition we would like to include PLSC 204 in a group called "Earth Processes" that also includes GEOG 101, 106, 220, and 342 and GEOL 107 and 113 (students would select two courses from this group). Is all this acceptable to your department?

Thanks,  
Judy

---

Judy Hough-Goldstein, Professor  
Dept. Entomology & Wildlife Ecology

**From:** Epifanio, Charles E. [mailto:epi@UDel.Edu]  
**Sent:** Tuesday, October 12, 2010 11:26 AM  
**To:** Hough-Goldstein, Judith  
**Cc:** Lopez, Janis C.; Targett, Nancy M.; Newton, Franklin A.  
**Subject:** Permission to list courses

Dear Judy,

We will be pleased to have you list our courses ( MAST 630,421/621, 427/627, 442, 451/651, and 618) in your proposed degree program in ecology.

Please note that MAST 421/621 and MAST 451/651 have major field components, and logistics may become an issue down the road with addition of your new program and our own proposed undergraduate degree comes on line. But for now, all should be fine.

Also please note that MAST 618 is offered every two years.

Best of luck with your new program.

Chuck

Charles E. Epifanio  
Harrington Professor of Marine Science  
Interim Director, School of Marine Science and Policy  
University of Delaware  
Lewes, DE 19958

302-645-4263

<http://www.ceoe.udel.edu/>

**From:** Kinservik, Matthew [mailto:matthewk@english.udel.edu]  
**Sent:** Tuesday, October 12, 2010 9:08 PM  
**To:** Hough-Goldstein, Judith  
**Cc:** Feng, Peter  
**Subject:** RE: Permission to list courses

Dear Judy,

Thank you for the note. I have no objection to this. Given the relatively small number of students and the range of courses you list, this should not be a problem.

All good wishes,  
Matt

Matthew J. Kinservik  
Professor and Chair  
Department of English  
University of Delaware  
Newark, DE 19716  
302-831-3351

*Become a fan of UD Department of English on Facebook visit <http://www.english.udel.edu/Facebook>*

**From:** Hough-Goldstein, Judith [mailto:jhough@UDel.Edu]  
**Sent:** Monday, October 11, 2010 2:20 PM  
**To:** matthewk@udel.edu  
**Subject:** Permission to list courses

Dear Dr. Kinservik,

We are proposing a new major, Ecology, which is intended to be an interdisciplinary major with Biological Sciences, housed in the Department of Entomology & Wildlife Ecology. If the new major is approved, the Department of Biological Sciences will deactivate the current Ecology and Organismic Biology concentration under the BS in Biological Sciences, and this major will take its place. We estimate approximately 10 students a year (totaling 40 students) would participate in this major, but since these students might otherwise have majored in Biology, the net increase might not be that much.

We would like to require students in this major to take one course from among the following: ENGL 301, 307, 312, 410, or UNIV 402 (Senior Thesis – thesis must be completed). Is this acceptable to your department?

Thanks,  
Judy Hough-Goldstein

---

Judy Hough-Goldstein, Professor  
Dept. Entomology & Wildlife Ecology

**From:** Aristigueta, Maria P. [mailto:Aristigueta@oet.udel.edu]  
**Sent:** Thursday, October 14, 2010 10:10 AM  
**To:** Hough-Goldstein, Judith  
**Subject:** RE: Permission to list course

I am pleased to approve the listing of LEAD 209. Maria

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

**From:** Hough-Goldstein, Judith [mailto:jhough@UDel.Edu]  
**Sent:** Thursday, October 14, 2010 9:24 AM  
**To:** Aristigueta, Maria P.  
**Subject:** Permission to list course

Dear Dr. Aristigueta,

We are proposing a new major, Ecology, which is intended to be an interdisciplinary major with Biological Sciences, housed in the Department of Entomology & Wildlife Ecology. If the new major is approved, the Department of Biological Sciences will deactivate the current Ecology and Organismic Biology concentration under the BS in Biological Sciences, and this major will take its place. We estimate approximately 10 students a year (totaling 40 students) would participate in this major, but since these students might otherwise have majored in Biology, the net increase might not be that much.

We would like to require students in this major to take one course from among the following: COMM 212, COMM 350, AGRI 212, LEAD 209, and THEA 204. Is this acceptable to your department?

Thanks,  
Judy Hough-Goldstein

---

Judy Hough-Goldstein, Professor  
Dept. Entomology & Wildlife Ecology

**From:** Robbins, Sanford L. [mailto:srobbins@art-sci.udel.edu]  
**Sent:** Thursday, October 14, 2010 3:11 PM  
**To:** Hough-Goldstein, Judith  
**Subject:** RE: Permission to list course

This is entirely fine with us.

We wish you the best with your new major.

Sandy Robbins

**From:** Hough-Goldstein, Judith [mailto:jhough@UDel.Edu]  
**Sent:** Thursday, October 14, 2010 9:19 AM  
**To:** srobbins@udel.edu  
**Subject:** Permission to list course

Dear Dr. Robbins,

We are proposing a new major, Ecology, which is intended to be an interdisciplinary major with Biological Sciences, housed in the Department of Entomology & Wildlife Ecology. If the new major is approved, the Department of Biological Sciences will deactivate the current Ecology and Organismic Biology concentration under the BS in Biological Sciences, and this major will take its place. We estimate approximately 10 students a year (totaling 40 students) would participate in this major, but since these students might otherwise have majored in Biology, the net increase might not be that much.

We would like to require students in this major to take one course from among the following: COMM 212, COMM 350, AGRI 212, LEAD 209, and THEA 204. Is this acceptable to your department?

Thanks,  
Judy Hough-Goldstein

---

Judy Hough-Goldstein, Professor  
Dept. Entomology & Wildlife Ecology



**From:** David A. Edwards [mailto:edwards@math.udel.edu]  
**Sent:** Monday, October 18, 2010 9:35 AM  
**To:** Hough-Goldstein, Judith  
**Subject:** Fwd: Permission to list course

Dear Dr. Hough-Goldstein:

We would be happy to have you list MATH 241 as a prerequisite for your students.

If you can point me to the place where the Web site led you astray, I'll have our Webmaster scrub it.

Sincerely,

David A. Edwards  
Interim Chair  
Department of Mathematical

Sciences

On Oct 11, 2010, at 10:34 PM, Peter Monk wrote:

Hi Judy

I am no longer chair, but I am copying the current Interim Chair, David Edwards, on this reply and I am sure he will respond (and have the web site changed).

Sincerely

Peter Monk

On Oct 11, 2010, at 12:18 PM, Hough-Goldstein, Judith wrote:

Peter,

I'm not sure if you are still the Chair of Math, but that's what the web site seems to suggest...

We are proposing a new major, Ecology, which is intended to be an interdisciplinary major with Biological Sciences, housed in the Department of Entomology & Wildlife Ecology. If the new major is approved, the Department of Biological Sciences will deactivate the current Ecology and Organismic Biology concentration under the BS in Biological Sciences, and this major will take its place. We estimate approximately 10 students a year (totaling 40 students) would participate in this major, but since these students might otherwise have majored in Biology, the net increase might not be that much.

We would like to list Math 241 (preference for biology section) as a requirement for this new major. Is that acceptable to the Math department?

Thanks,  
Judy

---

Judy Hough-Goldstein, Professor  
Dept. Entomology & Wildlife Ecology

-----Original Message-----

From: Tracy DeLiberty [mailto:tracyd@UDel.Edu]

Sent: Monday, October 18, 2010 10:51 AM

To: Hough-Goldstein, Judith

Subject: Re: Permission to list courses

Judy,

Thanks for sending me another email as a reminder. We talked about your new program at our faculty meeting last week. We welcome you listing our geography courses in the proposed ecology program. Tracy

Dr. Tracy DeLiberty

Associate Professor & Interim Chair

Department of Geography

Pearson Hall 229 (or Main Office 216)

University of Delaware

Newark, Delaware 19734

[tracyd@udel.edu](mailto:tracyd@udel.edu)

302-831-4084

302-831-6654 FAX

---- Original message ----

>Date: Mon, 18 Oct 2010 12:53:08 +0000

>From: "Hough-Goldstein, Judith" <[jhough@UDel.Edu](mailto:jhough@UDel.Edu)>

>Subject: Permission to list courses

>To: "[tracyd@udel.edu](mailto:tracyd@udel.edu)" <[tracyd@UDel.Edu](mailto:tracyd@UDel.Edu)>

>

> Dear Dr. DeLiberty,

> We are proposing a new major, Ecology, which is  
> intended to be an interdisciplinary major with  
> Biological Sciences, housed in the Department of  
> Entomology & Wildlife Ecology. If the new major is  
> approved, the Department of Biological Sciences will  
> deactivate the current Ecology and Organismic  
> Biology concentration under the BS in Biological  
> Sciences, and this major will take its place. We  
> estimate approximately 10 students a year (totaling  
> 40 students) would participate in this major, but  
> since these students might otherwise have majored in  
> Biology, the net increase might not be that much.  
> We would like to include GEOG 101, 106, 220, and  
> 342 in a group called "Earth Processes" that also  
> includes PLSC 204 and GEOL 107 and 113 (students  
> would select two courses from this group). Is this  
> acceptable to your department?

>

> Thanks,

>

> Judy Hough-Goldstein

From: smcgeary@UDel.Edu [mailto:smcgeary@UDel.Edu]  
Sent: Friday, October 22, 2010 11:52 AM  
To: Hough-Goldstein, Judith  
Cc: jmadsen@UDel.Edu  
Subject: RE: Permission to list courses

Hello Judy. Sorry for the delay. We are in the process of revising our undergraduate program and I wanted to run this past John Madsen. The major sounds great! Yes - this is acceptable to our department.

As far as the two Geology courses go, just three notes:

- Both of these courses - particularly 107 - tend to be oversubscribed. They can be hard to get into. However, we have a policy of pink-slipping people in who need them for their majors (environmental science or civil engineering for example)- and I'm sure we can extend the same courtesy to your students but you will have to let them know that they would need to contact us if they didn't get in online.
- There is a fair amount of overlap in content between GEOL 107 and GEOL 113 although the audience is quite different. (GEOL 107 is mostly science and engineering students, whereas GEOL 113 is designed for elementary ed majors and covers weather and atmosphere and other topics not in the physical geology course.)
- We are quite likely to switch the semesters in which they are offered - GEOL 107 will probably move to Fall again in F12 and GEOL 113 to Spring in S13.

Good luck. Cheers, Sue

\*\*\*\*\*

Dr. Susan McGeary  
Chair  
Geological Sciences  
College of Earth, Ocean, and Environment  
University of Delaware  
Newark, DE 19716

\*\*\*\*\*

From: Hough-Goldstein, Judith  
> Sent: Monday, October 18, 2010 8:54 AM  
> To: 'smcgeary@udel.edu'  
Dear Dr. McGeary,

We are proposing a new major, Ecology, which is intended to be an interdisciplinary major with Biological Sciences, housed in the Department of Entomology & Wildlife Ecology. If the new major is approved, the Department of Biological Sciences will deactivate the current Ecology and Organismic Biology concentration under the BS in Biological Sciences, and this major will take its place. We estimate approximately 10 students a year (totaling 40 students) would participate in this major, but since these students might otherwise have majored in Biology, the net increase might not be that much.

We would like to include GEOL 107 and 113 in a group called "Earth Processes" that also includes PLSC 204 and GEOG 101, 106, 220, and 342 (students would select two courses from this group). Is this acceptable to your department?

Thanks,  
Judy Hough-Goldstein