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: _____Delphis Levia_____phone number__831-3218_____

Department: _____Geography_____email address_dlevia@udel.edu___

Action: _____**Add Honors Major in Environmental Science** __
(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: _____**HBS**_____
(Example: BA, BACH, BACJ, HBA, EDD, MA, MBA, etc.)

Proposed name:_____ **Honors BS in Environmental Science** _____
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")

ENSC 468: Honors: Directed Research - This course constitutes a directed research experience for honors students. Topics of research will in the realm of environmental studies, depending on the interests and expertise of the student and supervising faculty member. Course credit may vary from 3 to 6 credits commensurate with the scope of the research performed.

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

The Environmental Science Curriculum supports the 10 goals of undergraduate education in the following ways:

1. Courses in the major require that students communicate effectively in verbal and written ways.
2. Students will need to use information technologies, use quantitative reasoning and critical thinking skills.
3. Students will be asked to integrate in-class learning in solving real life problems.
4. Students will understand the impact of humans on the environment and *vice versa* locally and globally.
5. Students will work and learn independently and collaboratively, integrating various concentrations, perspectives and diverse ways of thinking that underlie the search for knowledge in the arts, humanities, sciences and social sciences.
6. Students will explore environmentally related ethical questions and implications of individual and societal choices on individuals, communities, and the planet.
7. Students will develop intellectual curiosity, confidence, and understand the need for lifelong engagement in learning.
8. Students will develop an integrated, international perspective regarding countries, populations and the environment.
9. Students will integrate and demonstrate classroom skills and knowledge in at least one field related experience.

Identify other units affected by the proposed changes:
(Attach permission from the affected units. If no other unit is affected, enter "None")

University Honors Program

Describe the rationale for the proposed program change(s):
(Explain your reasons for creating, revising, or deleting the curriculum or program.)

Programmatic revisions to the BS in Environmental Science are being proposed to be implemented in Fall 2014.

An Honor's degree option would enhance the degree program and provide the option for Honors program students.

As a part of its Path to Prominence ™, the University of Delaware is focused on becoming a greener, more environmentally aware campus and on highlighting and enhancing opportunities for undergraduates to engage in environmental degree programs. Specifically, the goals outlined in the P2P state that UD will:

- Strive to make environmental awareness and stewardship an integral part of every student's educational experience.
- Develop environmental degree programs that promote cross-fertilization of science and policy.
- Define additional degree tracks and concentrations as well as opportunities for self-designed programs.
- Develop environmentally focused study abroad programs.
- Enhance UD's emphasis on interdisciplinary graduate programs

- Cultivate opportunities for science and engineering to interact with emerging business, social, and cultural issues of an environmentally aware world.

The above text provides the framework and context under which the environmental science and environmental studies programs at UD were revised and created, respectively, in 2009. Building upon the success of the major programmatic revisions of 2009, and seeking to improve the programs based on the past four years of experience, the Environmental Council (formed by Provost Rich in 2008 to reflect the multiple units engaged in delivering degree content) sought to revise the Environmental Science Program. The Council met regularly over the 2012-2013 academic year to discuss programmatic revisions that would be best for UD students. It is a faculty based Council with the following members:

Council members include:

- Tracy Deliberty (Geography)
- Paul Imhoff (Civil and Environmental Engineering)
- Jan Johnson (Political Science and International Relations)
- Murray Johnston (Chemistry and Biochemistry)
- Gerald Kaufmann (Urban Affairs and Public Policy)
- John Madsen (Geological Sciences)
- Tom Sims (Plant and Soil Science)
- Steven Hastings (Applied Economics and Statistics)
- Franklin Newton (CEOE)
- Del Levia (Director, Environmental Science and Environmental Studies Programs)
- Nancy Targett (*Ex-officio*, CEOE)

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.)

HONOR'S BACHELOR OF SCIENCE in Environmental Science
The recipient must complete:
1. All requirements for the Bachelor of Science degree in Environmental Science and theme [see proposed changes to environmental science degree also under consideration].
2. All of the University Honors Program's standard requirements for Honor's Baccalaureate degree.
3. 9 of the 12 Honors credits required in the major must be in ENVR/ENSC courses. The remaining Honors credits in the major may come from related courses required for the major.
Note: When courses are offered at the 4xx/6xx level, courses taken at the 6xx-level or higher may be considered as Honors courses. This does not include those *major* courses offered only at the 6xx level required for the degree.

The 12 honors credits for the major will be satisfied as follows:

ENSC 101 (3 cr), ENSC450 (3 cr.), ENSC468 (3-6cr.), and one major related course (3 cr.) ENSC468 constitutes the field experience for the major. A possible sample schedule follows:

First Year Fall	
HNRS ENGL 110: Critical Reading and Writing or HNRS Colloquium	3

ENSC 101: Introduction to the Environment (also FYE) HNRS	3
MATH 241: Analytical Geometry and Calculus A or MATH242 (available Honors in Fall semesters)	4
CHEM 103: General Chemistry I (available HNRS in Fall semesters)	4
Breadth requirement [Group A, B, or C]	3
Total credits:	17

First Year Spring	
MATH 242: Analytical Geometry and Calculus B or Lang requirement	4
CHEM104 (available Honors in Spring semesters)	4
HNRS ENGL 110: Critical Reading and Writing or HNRS Colloquium	3
GEOG220: Meteorology	3
Total Credits [running total]:	14 [31]
To earn the General Honors Award, HNRS students must take 12 credits of Honors in the first year (including an HNRS ENGL110 and an HNRS Colloquium. Second Year Fall	
BISC 207: Introductory Biology I (available HNRS in Fall semesters priority given to FR; must take BISC100 HNRS for 1 credit)	4
GEOL 107: General Geology	4

Language Requirement	4
GEOG 372: Introduction to GIS	4
Total Credits [running total]:	16

Second Year Spring	
PLSC 204/205: Introduction to Soil Science	4
Language requirement (if needed)	4
ENWC 201: Wildlife Conservation and Ecology HNRS	3
PHYS 201 or PHYS 207: Introductory Physics or Fundamental Physics	4
Total Credits [running total]:	15 [62]

An additional 6 credits Honors required in 2nd year for total of 18 credits Honors in the first 2 years required for General Honors Award.

Third Year Fall	
APEC150 or ECON151 HNRS	3
MAST 482: Introduction to Ocean Science	3
POSC 350: Politics and the Environment	3

ENSC468: Directed Research HNRS	3-6
Multicultural course/breadth requirement	3
Total Credits [running total]:	15

Third Year Spring	
Breadth requirement	3
Breadth requirement at 300-level HNRS	3
Concentration course at 300-level or above HNRS	4
GEOG 412: Physical Climatology	4
Total Credits [running total]:	16 [94]

Fourth Year Fall	
Concentration course	3
Concentration course	3/4
Breadth requirement	3
ENSC 300: Earth systems: science and policy	3
Elective 300-level HNRS/Directed Research HNRS/Thesis UNIV401 HNRS	3
Total Credits [running total]:	15/16

Fourth Year Spring	
ENSC 450: Proseminar: The Environment [second writing requirement] HNRS capstone	3
Concentration course	3/4
Concentration course	3
Breadth requirement	3
Elective/Directed Research/HNRS Thesis UNIV402	3
Total Credits [running total]:	15/16 [124]

For the Honors Degree, students must complete 12 Honors credits at the 300-level or higher including an HD capstone course. A total of 30 credits Honors and 3.400 GPA is required for the Honors Degree. For the Honors Degree with Distinction, students must complete an Honors SR thesis.

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

Department Chairperson _____ Date 20 Feb 2014

Dean of College _____ Date 20 Feb 2014

Chairperson, College Curriculum Committee _____ Date 14 Feb 14

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

UNIVERSITY OF DELAWARE | Honors Program

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February 6, 2014

Del Levia, Director
Environmental Science and Environmental Studies
University of Delaware

Dear Del:

I am submitting this letter in support of the two Honors Degrees being proposed for ENSC and ENVR majors – the Honors Bachelor of Science Degree in Environmental Science and the Honors Bachelor of Arts Degree in Environmental Studies. These degree option offer an interesting and challenging course of study for students in the Honors Program. I am particularly excited about the inclusion of directed research and the senior year Honors capstone seminar in both of these degrees.

Each proposal specifies a clear academic plan for achieving the Honors Degree within a four-year timeline. The degree plans suggest an interesting selection of Honors courses in Environmental Science and in related disciplines in which there are ample Honors offerings to accommodate students pursuing these degrees. Because neither degree changes the total number of Honors students admitted to the University, they will not require additional resources from the Honors Program. In short, these degrees will be outstanding additions to the Honors Program, and I strongly support approval.

I thank you and your colleagues for moving forward with proposals that will enhance the Honors Program offerings at the University. Please feel free to contact me if you have any questions.

Sincerely,

Michael Arnold

Michael Arnold
Director