

Bachelor of Science--Biology/Ecology, Conservation, and Evolutionary Biology Track-PrgRsv-2016-03-08

- The workflow icon is no longer available. Please click on the Page Status after the orange circle icon near the page title. *

Form Information

 The page you originally access is the global template version. To access the template document that progresses through the workflow, please complete the following steps:

First Step: **ONLY** change the text in the [brackets] so it looks like this: **Bachelors in Criminology Pre-Law-PrgRsv-2015-08-10**

- If DUAL LISTED list BOTH courses in the page title***

Second Step: Click “SAVE” on bottom right

- DO NOT TYPE ANYTHING INTO THE FIRST PAGE OTHER THAN THE TEXT IN BRACKETS***
- Please be sure to remove the Brackets while renaming the page***

Third Step: Make sure the word ***DRAFT*** is in yellow at the top of the proposal

Fourth Step: Click on “**EDIT CONTENTS**.”(not EDIT) and start completing the template. When exiting or when done, click “**SAVE**” on bottom right

When ready to submit click on the workflow icon and hit approve. It will then move to the chair as the next step in the workflow.

**Indicates a required field*

Proposer*	Joe Duchamp	Proposer Email*	jduchamp@iup.edu
Contact Person*	Megan Knoch	Contact Email*	mknoc@iup.edu
Proposing Department/Unit*	Biology	Contact Phone*	7-2613

<p>Program Revision Options (Check all that apply)</p> <p>Catalog Description Change liberal-studies Program Revision</p> <p><i>* Teacher Education: Please complete the Teacher Education section of this form (below)</i></p> <p><i>* Liberal Studies: Please complete the Liberal Studies section of this form (below)</i></p>
--

Course Level:*	undergraduate-level
-----------------------	---------------------

Rationale for Proposed Changes	
(A) Why is the program being revised?*	<ol style="list-style-type: none"> The experimental design course (BIOL 205) is critical for training our students to understand how to effectively plan a typical study in ecology and handle the resulting data. Expanding the options for Ancillary Courses provides additional flexibility for our students to fulfill the requirements for their degree. Changes to Ancillary courses also help encourage our students to pursue minors in 2 newer IUP minors (Applied Statistics, and Sustainability) in addition to existing minors in Geography, Geoscience, and Regional Planning. Deletions to Ancillary Course options also help direct our students to related courses in other departments. These deletions were made for 3 reasons. A) Many of the courses previously listed as options under Ancillary Courses were no longer being offered due to past curriculum revisions. B) Some courses had layers of prerequisites that were otherwise not required as part of our track. C) Some courses were removed because they are only distantly related to the focus of our track. The wording for the “Other Requirements” along with the use of a footnote was confusing for both students and advisors.

<p>(B) Identify the Program Student Learning Outcomes</p> <p>(SLO). Mark any SLOs that are changing as a part of the Program Revision.*</p>	<p>After successfully completing this program, students will be able to:</p> <ol style="list-style-type: none"> 1. Apply fundamental concepts from biology, chemistry, geology, mathematics, and physics to interactions among organisms and the structure and function of ecosystems. 2. Assess populations, communities, and ecosystems using appropriate experimental designs, research methodology, and quantitative tools. 3. Discuss scientific information related to their studies in the ECEB program in both written and oral form to professionals and the general public. 4. Construct research projects and develop the necessary skills to complete these projects with peers and professionals. 5. Evaluate scientific information for credibility and relevance to conservation and the environment. 6. Identify significant ethical issues related to conservation and the environment, and address these issues in an informed and thoughtful manner.
<p>(C) Implications of the change on the program, other programs and the Students:*</p>	<p>We are requiring 1 additional course, BIOL 205, and this modest change does not require the hiring of additional faculty. The course is expected to be offered a maximum of once per year. We anticipate that the additional course will improve the quality of the experience for our students. We also expect that the expanded course options in Ancillary Courses will increase retention and improve the ability of our students to complete their degree in 4 years. We see this as especially important for students transferring into the program after their freshman year.</p>

Current Program Information	Proposed Changes
<p>(D) Current Program Title*</p> <p>Ecology, Conservation, and Environmental Biology</p>	<p>P r o p o s e d P r o g r a m Ti t l e</p> <p><i>(if changed)</i></p>
<p>(E) Current Narrative</p> <p>UG Course Catalog: http://www.iup.edu/registrar/catalog/ Grad Course Catalog: http://www.iup.edu/graduatestudies/catalog/</p> <p>BS—Biology/Ecology, Conservation, and Environmental Biology Track</p> <p>The Ecology, Conservation, and Environmental Biology (ECEB) Track includes all core biology courses and a selection of related courses that focus on ecological and environmental sciences. To achieve an environmental focus, the student must complete broad training in the sciences and mathematics. The track is designed to provide flexibility to allow pursuit of specialized interests within ECEB, including minors in other environmental disciplines (e.g., environmental geology, geography, regional planning, law, etc.). Course requirements for professional certification by the Ecological Society of America (Certified Associate Ecologist) and/or the Wildlife Society (Certified Wildlife Biologist) can be met within this track. This track prepares students for pursuing advanced degrees or employment in areas related to ecology and environmental sciences at universities, government, and private companies.</p>	<p>P r o p o s e d N a r r a t i v e</p> <p>The Ecology, Conservation, and Environmental Biology (ECEB) Track includes core biology courses and a selection of related courses that focus on ecological and environmental sciences. To achieve an environmental focus, the student must complete broad training in the sciences and mathematics. The track is designed to provide flexibility to allow pursuit of specialized interests within ECEB, including minors in other related disciplines (Applied Statistics, Geology, Geography, Regional Planning, and Sustainability). Course requirements for professional certification by the Ecological Society of America (Certified Associate Ecologist) and/or the Wildlife Society (Certified Wildlife Biologist) can be met within this track. This track prepares students for pursuing advanced degrees or employment in areas related to ecology and environmental sciences at universities, government, and private companies.</p>

**C
a
t
a
l
o
g
D
e
s
c
r
i
p
t
i
o
n**

*If
c
o
p
y
i
n
g
p
a
s
t
i
n
g
f
r
o
m
c
u
r
r
e
n
t

c
a
t
a
l
o
g
e
n
t
r
y
,
p
l
e
a
s
e
p
a
s
t
e
i
n
t
o

W
o
r
d
o
r
N
o
t
e
p
a
d
f
i
r
s
t
o*

**C
a
t
a
l
o
g
D
e
s
c
r
i
p
t
i
o
n**

*(i
f
c
h
a
n
g
i
n
g)*

*el
i
m
in
at
e
p
ot
e
nt
ia
l
is
s
u
e
s
wi
th

fo
r
m
at
ti
n
g
or
s
p
e
ci
al
c
h
ar
a
ct
ers

in
th
e
te
xt.*

<p>(F)) C u r r e n t p r o g r a m R e q u i r e m e n t s</p>	<p>Liberal Studies: As outlined in Liberal Studies section with the following specifications (45 credits): Mathematics: MATH 121 Natural Science: CHEM 111-112 or CHEM 113-114 Liberal Studies Electives: 3cr, MATH 216 or 217</p> <p>Major: 36-37 credits</p> <p>Required Core Courses: BIOL 201 Principles of Ecology and Evolution 4cr BIOL 202 Principles of Cell and Molecular Biology 4cr BIOL 203 Principles of Genetics and Development 4cr</p> <p>Required Biology Courses: BIOL 210 Principles of Plant Biology 3cr BIOL 220 General Zoology 3cr BIOL 272 Conservation of Plant and Animal Resources 3cr BIOL 362 Ecology 3cr BIOL 451 Evolutionary Biology 3cr BIOL 450 or 490 Field Studies in Biology (Field Research Methods section only) or Field Biology at Pymatuning Laboratory of Ecology (Field Methods in Ecology and Conservation section only) 3-4cr</p> <p>Controlled Biology Electives: 6cr Biology electives (major courses only) (1)</p> <p>Other Science Requirements: 23 cr GEOS 201 Foundations of Geology 4cr PHYS 111 Physics I Lecture 3cr PHYS 121 Physics I Lab 1cr</p> <p>Controlled Electives: 15cr Select 15cr from the following: (2) ANTH 420; BIOC 301, 302, 311, 312, 401, 480, 490; CHEM 231, 232, 321, 323, 351; COSC 105, 110; ECON 361; GEOG 343, 345, 419; GEOG/RGPL 213, 314, 316, 415, 417, 440, 464; GEOS 202, 203, 303, 310, 311, 312, 313, 351, 352, 353, 354, 362, 370, 371; MATH 122, 417, 418; PHYS 112, 122, 151, 161; PSYC 290, 291, 315, 331, 341, 342 or 345, 350, 355, 356, 359, 372; RGPL 350, 458</p> <p>Other Requirements: 0-6 Foreign Language Intermediate Level (3) 0-6 cr Exit survey for assessment purposes Free Electives: 9-16</p> <p>Total Degree Requirements: 120</p> <p>(1) No more than 6cr total from Independent Study, Special Topics, or Internship applies to major; excess applied as free electives. (2) Other appropriate major courses at 200 level and above (excluding Liberal Studies courses) in the above departments may be substituted with permission of the advisor and the Biology Department chairperson in advance of taking the course. (3) (a) Two courses in one language, including the placement course; or (b) intermediate level. In lieu of a foreign language the students may elect to take a sequence of two courses in either computer science (exclusive of COSC/IFMG 101; COSC 110 and 210 recommended), or two courses in geography/regional planning (from the following: GEOG/RGPL 213, 314, 316, 415, 417).</p>	<p>P r o p o s e d P r o g r a m R e q u i r e m e n t s</p> <p>Liberal Studies: As outlined in Liberal Studies section with the following specifications: 45 Mathematics: MATH 121 Natural Science: CHEM 111-112 or CHEM 113-114</p> <p>Liberal Studies Electives: 3 cr. MATH 216 or 217</p> <p>Major: 39-40</p> <p>Required Core Courses: 12cr BIOL 201 Ecology and Evolution 4cr BIOL 202 Cell and Molecular Biology 4cr BIOL 203 Genetics and Development 4cr</p> <p>Required Biology Courses: 21-22cr</p> <p>BIOL 205 Ecological Methods 3cr BIOL 210 Botany 3cr BIOL 220 General Zoology 3cr BIOL 272 Conservation of Plant and Animal Resources 3cr BIOL 362 Ecology 3cr BIOL 451 Evolution 3cr BIOL 490 Field Studies in Biology or BIOL 450 Field Biology at Pymatuning Laboratory 3-4cr</p> <p>Controlled Biology Electives: 6cr BIOL majors courses only 6 cr (1)</p> <p>Other Science Requirements: 20</p> <p>GEOS 201 Foundations of Geology 4cr PHYS 111 Physics I Lecture 3cr PHYS 121 Physics I Lab 1cr</p> <p>Controlled Electives: 12cr (2) Select 12cr from the following (cannot include liberal studies elective, or courses counting toward Other Requirements): ANTH 222, 250, 420 BIOC: 301, 302, 311, 312 BIOL (Majors Courses Only) CHEM: 231, 232, 325, 326, 351 COSC 105, 110, 210, 310, 341 CRIM 374 ECON 122, 361</p> <p>GEOS 331, 419, 425, 435 GEOG/RGPL 213, 231, 313, 314, 316, 341, 342, 343, 345, 415, 420, 440, 464 GEOS: 202, 203, 302, 303, 310, 311, 312, 324, 352, 353, 370, 371 MATH: 122, 171, 309, 341, 342, 363, 411, 412 PHIL 270, 330 PHYS: 112, 122, 231 PSYC 330, 331 RGPL 350, 426 SAFE 310 SUST 201</p> <p>Other Requirements: 0-6 Course sequence in one of the following areas (may not be counted toward Ancillary Courses): 1) Foreign Language: 1 courses at Intermediate Level or 2 semesters beyond placement. 2) Computer Science: Choose two from the following: COSC 105, 110, 210 3) Geography/Regional Planning: Choose two from the following: GEOG /RGPL 213, 314, 415, 420</p> <p>Free Electives: 9-16</p> <p>Total Degree Requirements: 120</p> <p>(1) No more than 6cr total from Independent Study, Special Topics, or Internship applies to major; excess applied as free electives. (2) Other appropriate BIOL major courses at 200-level and above (excluding liberal studies courses) or courses in the above departments may be substituted with permission of the advisor and the biology department chairperson in advance of taking the course.</p>
---	--	---

(G) Supporting Documents*	Are you making a major change?					
	NO					
	If making a major change, please attach a document with a summary of any/all changes.					
	<table border="1"> <thead> <tr> <th style="text-align: left;">File</th> <th style="text-align: left;">Modified</th> </tr> </thead> <tbody> <tr> <td>PDF File SAFE_support.pdf</td> <td>Mar 10, 2017 by Megan E. Knoch</td> </tr> <tr> <td>PDF File CRIMLetter.pdf</td> <td>Mar 30, 2017 by Megan E. Knoch</td> </tr> </tbody> </table> Download All	File	Modified	PDF File SAFE_support.pdf	Mar 10, 2017 by Megan E. Knoch	PDF File CRIMLetter.pdf
File	Modified					
PDF File SAFE_support.pdf	Mar 10, 2017 by Megan E. Knoch					
PDF File CRIMLetter.pdf	Mar 30, 2017 by Megan E. Knoch					

Liberal Studies Section

- Complete this section only for a new Liberal Studies course or Liberal Studies course revision

If Completing this Section, Check the Box to the Right:	<input type="checkbox"/>
--	--------------------------

Liberal Studies Course Designations (Check all that apply)	
Learning Skills:	
Knowledge Area:	
Liberal Studies Elective	<i>Please mark the designation(s) that apply - must meet at least one</i>
Expected Undergraduate Student Learning Outcomes (EUSLOs)	<i>Describe how each Student Learning Outcome in the course enables students to become Informed Learners, Empowered Learners and/or Responsible Learners</i> <i>See http://www.iup.edu/WorkArea/DownloadAsset.aspx?id=181694</i>
Description of the Required Content for this Category	<i>Narrative on how the course will address the Selected Category Content</i>
All Liberal Studies courses are required to include perspectives on cultures and have a supplemental reading. Please answer the following questions.	
Liberal Studies courses must include the perspectives and contributions of ethnic and racial minorities and of women whenever appropriate to the subject matter. Please explain how this course will meet this criterion.	

<p>Liberal Studies courses require the reading and use by students of at least one non-textbook work of fiction or non-fiction or a collection of related articles. Please describe how your course will meet this criterion.</p>	
--	--

Teacher Education Section

- Complete this section only for a new Teacher Education course or Teacher Education course revision

If Completing this Section, Check the Box to the Right:							
Course Designations:							
Key Assessments							
	<p>For both new and revised courses, please attach (see the program education coordinator):</p> <ul style="list-style-type: none"> • The Overall Program Assessment Matrix • The Key Assessment Guidelines • The Key Assessment Rubric <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">File</th> <th style="text-align: center;">Modified</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">PDF File SAFE_support.pdf</td> <td style="text-align: center;">Mar 10, 2017 by Megan E. Knoch</td> </tr> <tr> <td style="text-align: center;">PDF File CRIMLetter.pdf</td> <td style="text-align: center;">Mar 30, 2017 by Megan E. Knoch</td> </tr> </tbody> </table> <ul style="list-style-type: none"> • Drag and drop to upload or browse for files <p>Download All</p>	File	Modified	PDF File SAFE_support.pdf	Mar 10, 2017 by Megan E. Knoch	PDF File CRIMLetter.pdf	Mar 30, 2017 by Megan E. Knoch
File	Modified						
PDF File SAFE_support.pdf	Mar 10, 2017 by Megan E. Knoch						
PDF File CRIMLetter.pdf	Mar 30, 2017 by Megan E. Knoch						
Narrative Description of the Required Content	<i>How the proposal relates to the Education Major</i>						

For Deans Review
Are Resources Available/Sufficient for this Course?
Is the Proposal Congruent with the College Mission?
Has the Proposer Attempted to Resolve Potential Conflicts with Other Academic Units?
Comments:

Please scroll to the top and click the Page Status if you are ready to take action on the workflow. Please submit an ihelp if you have any questions <http://ihelp.iup.edu>