

Bachelor of Science Biology/Environmental Health

Track-PrgRsv-2015-09-01

Form Information

Bachelors in Biology Environmental Health-PrgRsv-2015-08-10

Please direct any questions to curriculum-approval@iup.edu

*Indicates a required field

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

Program Revision Options (Check all that apply)

Program Revision

Course Level:* undergraduate-level

Rationale for Proposed Changes

(A) Why is the program being revised?*

Last year the Biology Department increased the number of credits for BIOL 250 from 3 credits to 4 credits. This change to BIOL 250 resulted in the reduction of the number of controlled biology electives from 6 credits to 5 credits. We are proposing to readjust our Required Biology Courses and our Controlled Biology Electives for Biology/ Environmental Health track students. BIOL 210 was removed from the Required Biology Courses as the course content is not relevant to students in the Environmental Health track. Although IUP's track is not accredited by the National Environmental Health Science and Protection Accreditation Council, the council does not recommend botany in its criteria for accredited programs. We increased the number of Controlled Biology Electives from 5 credits to 8 credits to allow students to broaden their background in the biological sciences. All Biology/Environmental Health students will still be required to complete the Biology Required Courses that include BIOL 201, BIOL 202 and BIOL 203.

(B) Identify the Program Student Learning Outcomes

Upon completion of the program, students should be able to: 1) Describe the basic tenants of epidemiology and toxicology. 2) Recognize the health risks associated with air quality, food protection, occupational health and safety, water and wastewater, solid and hazardous materials and waste management, and disease prevention. 3) Develop management strategies for environmental health risks by applying the technical knowledge and skills to function as members of an environmental health team in the private or public sector. 4) Develop management strategies for environmental health risks by applying the technical knowledge and skills to function as members of an environmental health team in the private or public sector.

(SLO). Mark any SLOs that are changing as a

part of the Program Revision.*

(C) Implications of the change on the program, other

The proposed changes will add three extra credits to the Controlled Biology Electives that can be used by students towards an internship, independent study or an additional environmental health technical area course, thereby making the program more relevant to environmental health practice. Other programs will not be affected by the proposed changes. BIOL 240 and BIOL 250 will fulfill the graduation requirements of current students. Current students can immediately switch to the new curriculum and opt to not take BIOL 210, giving them additional credits for Controlled Biology Electives.

programs and the Students.*

Current Program Information		Proposed Changes	
(D) Current Program Title*		Proposed Program Title <i>(if changing)</i>	
(E) Current Narrative Catalog Description <i>It is acceptable to copy/paste from the current catalog entry.</i>	<i>UG Course Catalog: http://www.iup.edu/registrar/catalog/ <i>Grad Course Catalog: http://www.iup.edu/graduatestudies/catalog/</i></i>	Proposed Narrative Catalog Description <i>(if changing)</i>	
(F) Current Program Requirements	<p>Bachelor of Science—Biology/Environmental Health Track</p> <p>Liberal Studies: (45 cr) As outlined in Liberal Studies section with the following specifications:</p> <p>Mathematics: MATH 121</p> <p>Natural Science: CHEM 111-112 or CHEM 113-114</p> <p>Social Science: ECON 101, PSYC 101 or SOC 151</p> <p>Liberal Studies Electives: 3cr, BTED/COSC/IFMG 101, no courses with BIOL prefix</p> <p>Major: (41 cr)</p> <p>Required Core Courses: (12 cr)</p> <p>BIOL 201 Principles of Ecology and Evolution 4cr</p> <p>BIOL 202 Principles of Cell and Molecular Biology 4cr</p> <p>BIOL 203 Principles of Genetics and Development 4cr</p> <p>Required Biology Courses: (24 cr)</p> <p>BIOL 210 Principles of Plant Biology 3cr</p> <p>BIOL 220 General Zoology 3 cr</p> <p>BIOL 221 Environmental Health and Protection 4 cr</p> <p>BIOL 240 Human Physiology 4cr</p> <p>BIOL 250 Principles of Microbiology 4 cr</p> <p>BIOL 323 Introduction to Toxicology and Risk Assessment 3cr</p> <p>BIOL 460 Fundamentals of Environmental Epidemiology 3 cr</p> <p>Controlled Biology Electives: (5 cr) BIOL 262, 310, 363, 466, 476, 481, 482, 483, 484, 493 or other biology major courses by permission of advisor or department chairperson. No more than 6 cr total from Independent Study, Special Topics or Internship applies to major; excess applies to free electives. (1)</p> <p>Other Science Requirements: (19 cr)</p> <p>CHEM 231 Organic Chemistry I 4cr</p> <p>CHEM 351 Biochemistry 4cr</p>	<p>Proposed Program</p> <p>Requirements</p> <p><i>(if changing, please highlight in RED what is being changed)</i></p>	<p>Bachelor of Science—Biology/Environmental Health Track</p> <p>Liberal Studies: (45 cr) As outlined in Liberal Studies section with the following specifications:</p> <p>Mathematics: MATH 121</p> <p>Natural Science: CHEM 111-112 or CHEM 113-114</p> <p>Social Science: ECON 101, PSYC 101 or SOC 151</p> <p>Liberal Studies Electives: 3cr, BTED/COSC/IFMG 101, no courses with BIOL prefix</p> <p>Major: (41 cr)</p> <p>Required Core Courses: (12 cr)</p> <p>BIOL 201 Principles of Ecology and Evolution 4cr</p> <p>BIOL 202 Principles of Cell and Molecular Biology 4cr</p> <p>BIOL 203 Principles of Genetics and Development 4cr</p> <p>Required Biology Courses: (21 cr)</p> <p>BIOL 220 General Zoology 3 cr</p> <p>BIOL 221 Environmental Health and Protection 4 cr</p> <p>BIOL 240 Human Physiology 4 cr</p> <p>BIOL 250 Principles of Microbiology 4 cr</p> <p>BIOL 323 Introduction to Toxicology and Risk Assessment 3cr</p> <p>BIOL 460 Fundamentals of Environmental Epidemiology 3 cr</p> <p>Controlled Biology Electives: (8 cr) (1) BIOL 262, 310, 363, 466, 476, 481, 482, 483, 484, 493 or other biology major courses by permission of advisor or department chairperson. No more than 6 cr total from Independent Study, Special Topics or Internship applies to major; excess applies to free electives.</p> <p>Other Science Requirements: (19 cr)</p> <p>CHEM 231 Organic Chemistry I 4cr</p> <p>CHEM 351 Biochemistry 4cr</p>

MATH 216 Probability and Statistics for Natural Sciences 3cr or 217 Probability and Statistics

PHYS 111 Physics I Lecture 3cr

PHYS 121 Physics I Lab 1cr

Ancillary Science and Technical Electives: (4cr) **(2)** CHEM 232, 323 GEOG/RGPL 415, 417, GEOG 419, 425 GEOS 201, 202, 312, 313 MATH 122 PHYS 112, 122 PSYC 290, 291, 315, 331, 341, 342 or 345, 350, 355, 356, 359, 372 SAFE 330, 430

Other Requirements: (0-6 cr) Foreign Language Intermediate Level, Exit survey for assessment purposes **(3)**

Free Electives: 9-15 cr **(4)**

Total Degree Requirements: 120 cr

(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, students may elect to take a sequence of two courses in either computer science, exclusive of COSC 101 (COSC 110 and 210 recommended), or two courses in geography/regional planning (from the following: GEOG/RGPL 213, 314, 316, 415, 417). **(4)** Recommended free electives: MGMT 310; PLSC 250, 370; SAFE 101, 220.

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(G)
Supporting
Documents

If making a major change, please attach a document with a summary of any/all changes.

File

Modified ^

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: