

Bachelors of Science - Biochemistry-PrgRsv-2016-12-13

- 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*	Jonathan Southard	Proposer Email*	southard@iup.edu
Contact Person*	Jonathan Southard	Contact Email*	southard@iup.edu
Proposing Department/Unit*	Biochemistry Program	Contact Phone*	72210

Program Revision Options (Check all that apply)

Catalog Description Change
Program Revision

** Teacher Education: Please complete the Teacher*

Education section of this form (below)

** Liberal Studies: Please complete the Liberal Studies*

section of this form (below)

Course Level:*

undergraduate-level

Rationale for Proposed Changes

(A) Why is the program being revised?*

The program is being revised to reflect previously approved changes in BIOL and CHEM courses included in the program and to make clear the option for a degree certified by the American Chemical Society (ACS). This option is made possible by the recent approval of the bachelors in biochemistry program by the ACS.

(B) Identify ALL Program Student Learning Outcomes

(SLO). Identify any SLOs that have be changed in response to the Program Revision .*

Upon completion of the program students should:

- be prepared for further study in graduate or professional programs in biochemistry or related fields.
- be prepared for technical employment in university, government or industrial laboratories.
- have the ability to analyze data and scientific arguments, work with peers to solve complex, multi-step problems and communicate answers and scientific reasoning clearly, in both written and oral forms.
- have developed effective and safe laboratory skills involving the methods and instrumentation of modern biochemistry.
- have an awareness of the major scientific and ethical issues at the forefront of biochemistry

No SLOs have been changed.

<p>(C) Implications of the change on the program, other programs and the Students:*</p>	<p>This revision updates required and controlled elective BIOL and CHEM courses to their currently approved designation, title, and credit hours. Implications of the change for the program are negligible.</p> <p>There may be a small increase in the number of students enrolled in CHEM 214 (biochemistry majors using this course as a controlled elective for an ACS certified degree). Otherwise, there are no implications of this revision for other programs.</p> <p>The primary implications for program students will be elimination of problems during registration due to out-of-date course prerequisites. Students will be informed of the option for an ACS certified degree and may plan their academic program accordingly.</p>
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Program Information

<p>(D) Current Program Title*</p>	<p>Bachelor of Science-Biochemistry</p>
<p>Proposed Program Title</p> <p><i>(if changing)</i></p>	
<p>(E) Current Narrative</p> <p>Catalog Description</p> <p><i>If copying pasting from current catalog entry, please paste into Word or Notepad first to eliminate potential issues with formatting or special characters in the text.</i></p>	<p>UG Course Catalog: http://www.iup.edu/registrar/catalog/</p> <p>Grad Course Catalog: http://www.iup.edu/graduatestudies/catalog/</p> <p>Website: www.iup.edu/biochemistry</p> <p>Jonathan N. Southard, Coordinator; N. Bharathan, S. Bharathan, Diep, Ford, Hinrichsen, Irani, Jain, Ko, Kyler, Luciano, Majumdar, Ruby, Villemain, Widzowski; and professors emeriti Butler, Harding</p> <p>The BS degree program in biochemistry is a four-year degree curriculum offered as a cooperative program by the Biology and Chemistry departments. This program also offers the Biochemistry minor.</p> <p>The curriculum leading to a BS degree with a major in biochemistry begins with foundation courses in biology, chemistry, mathematics, and physics in the first two years. Specialization in biochemistry commences in the third year with courses in Biochemistry, Genetics, Physical Chemistry, Special Topics in Biochemistry, and Biochemistry Seminar and an American Chemical Society certified degree.</p> <p>A unique feature of this undergraduate program is that biochemistry research is a requirement. After consultation with faculty, the students will define a problem and devise an experimental plan through library research. Laboratory research will be done under the direct supervision of a faculty member. Finally, the student will report on the results of the research in both written and oral forms.</p> <p>This program is intended for students whose interests lie in a most exciting field of modern science. Graduates can expect to be qualified to enter graduate programs in biochemistry, biology, chemistry, and molecular biology; professional schools in the health sciences; and positions in industrial and government research laboratories and in industrial production facilities.</p>

Proposed Narrative	Website: www.iup.edu/biochemistry						
	Jonathan N. Southard, Coordinator; N. Bharathan, S. Bharathan, Diep, Ford, Hinrichsen, Irani, Jain, Ko, Kyler, Luciano, Majumdar, Ruby, Villemain, Widzowski; and professors emeriti Butler, Harding						
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(F) Current and Proposed	Attach a Word document showing a side-by-side comparison of the current and proposed program requirements. Please clearly label the attachment as Program Requirements.						
Program Requirements	<table border="1"> <thead> <tr> <th>File</th> <th>Modified</th> </tr> </thead> <tbody> <tr> <td>File Support for BIOC revisions.eml</td> <td>Feb 07, 2017 by southard</td> </tr> <tr> <td>Microsoft Word Document Program requirements.docx</td> <td>Mar 13, 2017 by southard</td> </tr> </tbody> </table>	File	Modified	File Support for BIOC revisions.eml	Feb 07, 2017 by southard	Microsoft Word Document Program requirements.docx	Mar 13, 2017 by southard
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	Download All						

(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. Please clearly label the attachment as Supporting Documentation.						
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	Download All						

Liberal Studies Section

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

If Completing this Section,	NOTE: you must check this box if the Course/Program has previously been approved for Liberal Studies
Check the Box to the Right:	

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	<i>Describe how each Student Learning Outcome in the course enables students to become Informed Learners, Empowered Learners and/or Responsible Learners</i>
Learning Outcomes (EUSLOs)	<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.	
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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.	
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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:	NOTE: you must check this box if the Course/Program has previously been approved for Teacher Education related items
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" data-bbox="397 279 1193 409"> <thead> <tr> <th data-bbox="397 279 941 321">File</th> <th data-bbox="941 279 1193 321">Modified</th> </tr> </thead> <tbody> <tr> <td data-bbox="397 321 941 363">File Support for BIOC revisions.eml</td> <td data-bbox="941 321 1193 363">Feb 07, 2017 by southard</td> </tr> <tr> <td data-bbox="397 363 941 405">Microsoft Word Document Program requirements.docx</td> <td data-bbox="941 363 1193 405">Mar 13, 2017 by southard</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	File Support for BIOC revisions.eml	Feb 07, 2017 by southard	Microsoft Word Document Program requirements.docx	Mar 13, 2017 by southard
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<p>Narrative Description of the Required Content</p>	<p><i>How the proposal relates to the Education Major</i></p>						

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>