

## New Program Proposal

*Undergraduate Studies Committee program proposal presentation deadline: February 13, 2018*

*Graduate Studies Committee program proposal presentation deadline: February 8, 2018*

*All program proposals must be received by the University Faculty Council by March 1, 2018 to be considered for the 2018 - 2019 academic year.\**

*\*Please note that a submitted program proposal form must be reviewed/approved by departmental leadership and Academic Affairs before it may be presented to the Undergraduate Studies Committee, Graduate Studies Committee, or University Faculty Council.*

*All fields that are outlined in red are required fields.*

Requestor	Name	<input type="text" value="Sarah Pariseau"/>	E-mail	<input type="text" value="sparisea@iit.edu"/>
Origination Date	<input type="text" value="2017-10-26"/>			
Is this an interdisciplinary program?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		
<p><i>Note: An interdisciplinary program is defined as a program that is not administered by an academic department(s), but is administered by the larger college administrative unit. Co-terminal or dual degree programs are NOT considered interdisciplinary programs in this sense.</i></p>				
Academic Unit	<input type="text" value="Chemical Sciences"/>	College	<input type="text" value="College of Science"/>	
Program Title	<input type="text" value="Bachelor of Science in Chemistry/Master of Science in Biology for the"/>			
Effective Academic Year	<input type="text" value="Select..."/>	Effective Term	<input type="text" value="Select Effective 1"/>	
Academic Level	<input type="text" value="Undergraduate"/>			
Program Type	<input type="text" value="Co-Terminal Degree"/>			
Degree Type	<input type="text" value="Bachelor of Science/Master of Science(BSMS)"/>			





*The CIP code is required to make the program U.S. Financial Aid Eligible. This six-digit code identifies, to the greatest specificity possible, an entire instructional program. The classification scheme seeks to comprehensively address all areas of study. The first two-digits are the first cut off of detail and describe the general discipline of the program. For example, any program with a CIP code that starts with 14 is within the engineering discipline; anything with a 22 is within the legal discipline. The next two digits increase the level of detail, and the final two-digits provide the highest level of detail.*

CIP Code

Is there more than one Academic Unit proposer?

Yes  No

Which Academic  
Units?

Academic Unit	
<input type="text" value="Biological Sciences"/>	  

Second CIP

You may propose a program code and/or attribute below. The availability of the requested program code or attribute will be validated after submission. Please note that not all programs require a program attribute.

Program Code

Program Attribute

Total Program  
Credit Hours

## Program Narrative and Justification

Illinois Tech has reviewed and determined as an institution that we need to collect the below information regarding marketing and employment analysis for new programs, using the Department of Education's gainful employment criteria to establish best practices.

Illinois Tech also requires that new program proposals receive a marketing analysis from the Office of Marketing and Communications. The Marketing Analysis Request Form is available [online](#).

Narrative description of how the institution determined the need for the program. For example, describe what need this program will address and how the institution became aware of that need. If the program is replacing a current program(s), identify the current program(s) that is being replaced by the new program(s) and provide details describing the benefits of the new program(s). If the program will be offered in connection with, or in response to, an initiative by a governmental entity, provide details of that initiative.

Insert text here

Narrative description of how the program was designed to meet local market needs, or for an online program, regional or national market needs. For example, indicate if Bureau of Labor Statistics data or State labor data systems information was used, and/or if State, regional, or local workforce agencies were consulted. Include how the course content, program length, academic level, admission requirements, and prerequisites were decided; including information received from potential employers about course content; and information regarding the target students and employers.

Insert text here

Narrative description of any wage analysis the institution may have performed, including any consideration of Bureau of Labor Statistics wage data related to the new program.

Insert text here

*Bureau of Labor Statistics data may be accessed at [bls.gov/data](http://bls.gov/data)*

Narrative description of how the program was reviewed or approved by, or developed in conjunction with, one or more of the following: a) business advisory committees; b) program integrity boards; c) public or private oversight or regulatory agencies (not including the state licensing/authorization agency and accrediting agency); and d) businesses that would likely employ graduates of the program. For example, describe the steps taken to develop the program, identify when and with whom discussions were held, provide relevant details of any proposals or correspondence generated, and/or describe any process used to evaluate the program.

Insert text here

What are the enrollment estimates?

Year 1

5

Year 2

10

Year 3

15

Attach Additional  
Program  
Justification  
Document(s)

Uploading files requires [Adobe Flash 10](#). If you are required to attach files to this request, you will not be able to submit the request.

Uploaded Files:

Files To Be Uploaded:

## Academic Information

## Advising

Since quality advising is a key component of good retention, graduation, and career placement, how will students be mentored? What student professional organizations will be formed? How will the department work with the Career Services office to develop industry connections?

Insert text here

How will advising responsibilities be shared between the departments?

Insert text here

## Program Resources

Which program resources are necessary to offer this program?

- Personnel
- Facilities

Describe the personnel requirements necessary to offer the program. Describe how and when resources will be made available to hire any additional personnel that are required.

Two new faculty to be hired for the 2018-2019 academic year.

## Proposed Bulletin Entry

Admission Requirements

Styles			

Students must follow standard admission requirements for the B.S. Chemistry program.

## Program Outcomes and Assessment Process

What are the learning goals for this program?

Learning goal	Student work/assignments used to assess achievement of this goal	+
Insert text here	Insert text here	✕ ↑ ↓

What should students be able to do after successfully completing the program?

Student objective/goal	+
Insert text here	✕ ↑ ↓

How often and by whom will data be collected? How often and by whom will the data be analyzed?

Insert text here

Identify rubric for assessing completion of

student learning goals.

Insert text here

What benchmarks or targets will be used to interpret your results?

Insert text here

How will you use your assessment results to improve the program?

Insert text here

## Co-Terminal Degree Requirements

### Undergraduate Degree Requirements

*Illinois Institute of Technology requires that the final 45 semester hours of an undergraduate degree must be completed at Illinois Tech.*

Minimum credit hours

152

Specialization required?

Yes

No

Optional


Minor required?

Yes

No

Required minimum GPA for admission

3.00 ▼

Number of shared  
credit hours  
allowed. 

9

Which courses may  
be shared?

Format	Styles				Source
CHEM 415	Inorganic Chemistry				3
CHEM 434	Spectroscopic Methods in Identification and Analysis				4
BIOL 595	Biology Colloquium				1

CHEM 415 and CHEM 434 will act as MS-BIOL electives

BIOL 595 will sub for CHEM 485.

## Proposed General Curriculum

Detail the courses needed for the program including courses currently offered and new courses to be developed. Using the toolbar below, click on "Insert/Edit Formatted Table" and use the Course List option.

List Major Course

Requirements

Format	Styles				Source
<b>Course List</b>					
<b>Chemistry Requirements</b>					<b>(53)</b>
CHEM 100	Introduction to the Profession				2
CHEM 124	Principles of Chemistry I with Laboratory				4
CHEM 125	Principles of Chemistry II with Laboratory				4
CHEM 237	Organic Chemistry I				4
CHEM 239	Organic Chemistry II				3
CHEM 240	Organic Chemistry Laboratory				2
CHEM 247	Analytical Chemistry				3
CHEM 321	Instrumental Analysis				4
CHEM 343	Physical Chemistry I				3

## List Mathematics

Requirements 

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Format <input type="text"/>	Styles <input type="text"/>	<input type="text"/>	Source <input type="text"/>

Course List		
<b>MATH 151</b>	Calculus I	5
<b>MATH 152</b>	Calculus II	5
<b>MATH 251</b>	Multivariate and Vector Calculus	4
<b>MATH 252</b>	Introduction to Differential Equations	4
<b>Total Credit Hours</b>		<b>18</b>

## List Science

Requirements 

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Format <input type="text"/>	Styles <input type="text"/>	<input type="text"/>	Source <input type="text"/>

Course List		
<b>PHYS 123</b>	General Physics I: Mechanics	4
<b>PHYS 221</b>	General Physics II: Electricity and Magnetism	4
<b>Total Credit Hours</b>		<b>8</b>

## List Computer


## Science

Requirements 

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Format <input type="text"/>	Styles <input type="text"/>	<input type="text"/>	Source <input type="text"/>


Course List		
<b>CS 105</b>	Introduction to Computer Programming	2
or <b>CS 110</b>	Computing Principles	



List Humanities and  
Social Sciences  
Requirements 

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Format ▾	Styles ▾	<input type="checkbox"/>	<input type="checkbox"/>

21 credit hours - see core curriculum requirements

List  
Interprofessional  
Project (IPRO)  
Requirements 

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Format ▾	Styles ▾	<input type="checkbox"/>	<input type="checkbox"/>

6 credit hours - see core curriculum requirements

List Technical  
Elective Course  
Options

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Format ▾	Styles ▾	<input type="checkbox"/>	<input type="checkbox"/>

6 credit hours

List Free Elective  
Credit Hours (if  
applicable)

0

Provide a sample semester by semester curriculum and the program requirements, as they would appear in the Illinois Institute of Technology Bulletin. Using the toolbar below, click on "Insert/Edit Formatted Table" and use the Plan of Study Grid option.

Semester-by-  
semester plan of  
study for the  
degree program

SEMESTER 1	CREDIT HOURS	SEMESTER 2	CREDIT HOURS
CHEM 124	4	CHEM 100	2
CS 105 or 110	2	CHEM 125	4
MATH 151	5	MATH 152	5
Humanities 200-level Course	3	PHYS 123	4
		Social Sciences Elective	3
	<b>14</b>		<b>18</b>

## Master of Science (M.S.) Degree

Minimum credit  
hours

152

400-level credit hour limit?

 Yes No

How many hours allowed?

12

The university maximum for 400-level credit in a graduate program is 12 credit hours.

500-600-level credit hour limits: Minimum:  Maximum:

700-level credit hour maximum:



Thesis required?

Yes  No  Optional

Comprehensive exam required?

Yes  No

Project course required?

Yes  No  Optional

Seminar/Colloquium required?

Seminar  Colloquium  Not Required

Seminar/colloquium credit hours required  Course Number

Required specialization/concentration?

Yes  No  Optional

Detail the courses needed for the program including courses currently offered and new courses to be developed. Using the toolbar below, click on "Insert/Edit Formatted Table" and use the Course List option.

List Core Course

Requirements

Course Number	Course Name	Credits
BIOL 504	Biochemistry	3
BIOL 515	Molecular Biology	3
BIOL 526	Developmental Biology	3
BIOL 527	Immunology and Immunochemistry	3
BIOL 530	Human Physiology	3
BIOL 542	Advanced Microbiology	3

List Elective Course

Options

Format ▾	Styles ▾					Source
400- or 500-level BIOL electives						