

COSC 319 Software Engineering Concepts-CrsRvs-2018-09-14

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



complete the following steps:

First Step: **ONLY** change the text in the [brackets] so it looks like this: **CRIM 101 Intro to Criminology-CrsRvs-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*** ***click L I b BOTHSp22 I HE FIRST PAGE OTHE***

EDIT CONTENTS (not ***EDIT***) and start completing the template. When exiting or when done, click **“SAVE”** (not ***Save Draft***) 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*	Terrence Fries	Proposer Email*	tfries@iup.edu
Contact Person*	Terrence Fries	Contact Email*	tfries@iup.edu
Proposing Department/Unit*	Mathematical and Computer Sciences	Contact Phone*	7-4492

Course Level*	undergraduate-level
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Course Revisions	
(Check all that apply; fill out categories below as specified; i.e. if only changing a course title, only complete Category A)	
Category A: catalog_desc_change mod_prereq	Category B: course_revision liberal-studies <i>* Teacher Education: Please complete the Teacher Education section of this form (below)</i> <i>* Liberal Studies: Please complete the Liberal Studies section of this form (below)</i> <i>* Distance Education: Please complete the Distance Education section of this form (below)</i>

Rationale for Proposed Changes (All Categories)
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<p>(A) Why is the course being revised/deleted:*</p> <p><i>Please be specific - this should be have more detail than the Summary for the Senate.</i></p>	<p>This course is being revised to reflect changes in software engineering techniques and methodologies currently used in industry. The addition of "C or better" to the prerequisite is done because students must have a thorough understanding of programming concepts to succeed in this course.</p>
<p>(B) University Senate Summary of Rationale*</p>	<p><i>Please enter a single paragraph summary/rationale of changes or proposal for University Senate.</i></p> <p>This course is being revised to reflect changes in software engineering techniques and methodologies currently used in industry. The addition of "C or better" to the prerequisite is done because students must have a thorough understanding of programming concepts to succeed in this course.</p>
<p>(C) Implications of the change on the program, other programs and the Students:*</p>	<p>There will be no impact on the program or students other than to better prepare them for jobs.</p>

Current Course Information*	
Category A	
(D) Current Prefix*	COSC
Proposed Prefix	
(E) Current Number*	319
Proposed Number	
(F) Current Course Title*	Software Engineering Concepts
Proposed Course Title	
(G) Prerequisite(s)	COSC 310 or instructor permission
Proposed Prerequisite(s)	Grade of "C" or better in COSC 310
(H) Current Catalog Description	Software engineering concepts include the collection of tools, procedures, methodologies, and accumulated knowledge about the development and maintenance of software-based systems. Strongly suggested for any student planning to take an internship in Computer Science. After an overview of the phases of the software lifecycle, current methodologies, tools, and techniques being applied to each phase will be discussed in depth with localized exercises given to reinforce learning of concepts.
Proposed Catalog Description	Introduces classical software engineering life cycle models and modern agile methodologies. Includes requirements elicitation, specification, design, and testing. Covers metrics, risk mitigation, and other tools required for software development. Students will participate on a team to develop a large-scale software product using an appropriate software engineering methodology.

**(M)
Previous
Brief
Course
Outline**

As outlined by the federal definition of a "credit hour", the following should be a consideration regarding student work - For every one hour of classroom or direct faculty instruction, there should be a minimum of two hours of out of class student work.

*(It is
acceptable
to copy*

*from old
syllabus)*

A. Course Introduction and Administration	0.5 hrs.
B. The Software Crisis and Software Engineering	3.0 hrs.
C. The Software Life Cycle - A Model of Software Development	1.5 hrs.
D. Requirements Analysis	1.5 hrs.
E. Design Issues	3.0 hrs.
F. Design Methodologies	6.0 hrs.
G. Implementation Techniques	3.0 hrs.
H. Development Tools	3.0 hrs.
I. Software Quality	6.0 hrs.
J. Generic Code and Automatic Code Generation	6.0 hrs.
K. Programming Environments	3.0 hrs.
L. Management of Software Development	3.0 hrs.
M. Maintenance	3.0 hrs.
Exams (2)	2.0 hrs.

Brief Course Outline	<p><i>Give an outline of sufficient detail to communicate the course content to faculty across campus. It is not necessary to include specific readings, calendar or assignments</i></p> <p><i>As outlined by the federal definition of a "credit hour", the following should be a consideration regarding student work - For every one hour of classroom or direct faculty instruction, there should be a minimum of two hours of out of class student work.</i></p>
Rationale for Proposal (Required Questions from CBA)	
How is/are the instructor(s) qualified in the Distance Education delivery method as well as the discipline?	
For each outcome in the course, describe how the outcome will be achieved using Distance Education technologies.	
How will the instructor-student and student-student interaction take place? (if applicable)	
How will student achievement be evaluated?	
How will academic honesty for tests and assignments be addressed?	

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:	NOTE: you must check this box if the Course/Program has previously been approved for Liberal Studies liberal-studies
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Liberal Studies Course Designations (Check all that apply)	
Learning Skills:	
Knowledge Area:	

<p>Liberal Studies Elective</p> <p>Expected Undergraduate Student Learning Outcomes (EUSLOs)</p> <p>Map the Course Outcome to the EUSLO's</p>	<p><i>Please mark the designation(s) that apply - must meet at least one</i></p> <p><i>Map each course outcome to the appropriate EUSLOs that apply. Fill in the course outcome number</i></p> <p><i>See https://www.iup.edu/liberal/faculty-and-staff/euslos/ for additional information regarding mapping EUSLOs</i></p> <table border="1" data-bbox="548 317 1442 1955"> <thead> <tr> <th data-bbox="548 317 1268 369">Informed Learners demonstrate:</th> <th data-bbox="1268 317 1442 369">Course SLO #</th> </tr> </thead> <tbody> <tr><td>•</td><td></td></tr> <tr><td>•</td><td></td></tr> <tr><td>•</td><td></td></tr> <tr><td>•</td><td></td></tr> <tr><td>•</td><td></td></tr> <tr><td>•</td><td></td></tr> <tr><td></td><td></td></tr> <tr><td>•</td><td></td></tr> <tr><td>•</td><td></td></tr> <tr><td>•</td><td></td></tr> <tr><td>•</td><td></td></tr> <tr><td>•</td><td></td></tr> <tr><td>•</td><td></td></tr> <tr><td>•</td><td></td></tr> <tr><td>•</td><td></td></tr> <tr><td></td><td></td></tr> <tr><td>•</td><td></td></tr> <tr><td>•</td><td></td></tr> </tbody> </table>	Informed Learners demonstrate:	Course SLO #	•		•		•		•		•		•				•		•		•		•		•		•		•		•				•		•	
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	<ul style="list-style-type: none"> • an understanding of the ethical and behavioral consequences of decisions and actions on themselves, on society, and on the physical world 	
	<ul style="list-style-type: none"> • an understanding of themselves and a respect for the identities, histories and cultures of others 	


<p>How will each outcome be measured (note should mirror (L) Student Learning Outcomes* (SLO) from the course proposal</p>	<i>Narrative on how the course will address the Selected Category Content</i>	
	Course SLO #	Assessment Tool to be used to measure the outcome
	1	
	2	

3	
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**All Liberal Studies courses are required to include perspectives on cultures and have a supplemental reading.
Please answer the following questions.**

<p>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>	
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<p>Liberal Studies courses require the</p>	
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	<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 <p>File Modified</p> <hr/> <p>No files shared here yet.</p> <ul style="list-style-type: none"> • Drag and drop to upload or browse for files 
<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>