


COSC 365 Web Application Development-CrsRvs-2019-03-22

- 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: 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*
- 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**" (*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		

Course Revisions	
(Check all that apply;fill out categories below as specified; i.e. if only changing a course title, only complete Category A)	
<p>Category A:</p> <p>catalog_desc_change course_title_change mod_prereq</p>	<p>Category B:</p> <p>course_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> <p><i>* Distance Education: Please complete the Distance Education section of this form (below) - Please check the APPROVED DE Course List - ON DOCUMENTS PAGE before completing this section</i> <i>If already approved - you DO NOT need to do a DE proposal</i></p>

Rationale for Proposed Changes (All Categories)

Proposed Catalog Description	Covers the fundamental architecture of web-based applications. Presents client-side application development using markup languages such as XHTML/CSS, forms, scripting languages such as JavaScript and PHP, asynchronous updating of data such as AJAX, database access using SQL. Projects include development of distributed applications on the Internet. Includes best practices in usability, internationalization, security, and W3C accessibility standards for web applications.
<i>If changing Category A, no further action required.</i>	
Category B (if no change, leave blank)	
(I) Repeatable Course This is for a course that can be repeated Multiple times e. g. Internship	<p>If YES, please complete the following:</p> <p>Number of Credits that May be Repeated:</p> <p>Maximum Number of Credits Allowed to be Repeated:</p>
Proposed Repeatable Course	<p>If YES, please complete the following:</p> <p>Number of Credits that May be Repeated:</p> <p>Maximum Number of Credits Allowed to be Repeated:</p>
(J) Number of Credits	<p>Class Hours per week:3</p> <p>Lab Hours:0</p> <p>Credits:3</p>
Proposed Number of Credits	Class Hours:Lab Hours:Credits:
(K) Current Course Student Learning Outcomes (SLOs)	<ol style="list-style-type: none"> 1. Explain and use basic building blocks for the Internet and Web, including: sockets, datagrams, HTML/XHTML, HTTP, and Scripting (e. g. JavaScript, VBScript) 2. List the major technologies of the selected Internet architecture and describe the purpose of each. 3. Design and implement Web-based applications employing the technologies of the selected Internet architecture. Applications may include access and update of data in a database. 4. Discuss problems and solutions related to Internet-based development such as security, privacy, state management, maintenance, scalability, and internationalization. 5. Discuss the underlying framework for Internet-based software applications such as Web-based documentation retrieval systems, online transactions (such as banking, auctions, e-commerce, digital libraries, search engines, et al), group-based collaboration over the Internet, Web-based utilities (such as calendars, planners), Web-based entertainment, Web-based publishing, et al. 6. Describe the evolution of existing Web technologies, as well as major future directions of new tools, techniques, applications, and paradigms for developing Web applications.

<p>(L) Proposed Course Student Learning Outcomes (SLOs)</p> <p>For each outcome, describe how the outcome will be achieved</p>	Note that the text box in the table expands		
	SLO #	Outcome	How outcome is assessed
	1	Design and implement interactive web applications using XHTML/CSS and scripting such as JavaScript and PHP.	Assignments, Exams, Projects
	2	Utilize Ajax and XML to asynchronously update data on a web page.	Assignments, Exams, Projects
	3	Implement web applications that access a relational database using SQL.	Assignments, Exams, Projects
	4	Select the appropriate technologies for a specified web application.	Assignments, Exams, Projects
	5	Incorporate best practices in usability and W3C accessibility standards for web applications.	Assignments, Exams, Projects

<p>(M) Previous Brief Course Outline</p> <p><i>(It is acceptable to copy from old syllabus)</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>
	<p>A. Fundamental Architecture of Internet-based Systems</p> <ol style="list-style-type: none"> 1. Introduction to networking 2. History of the Internet 3. TCP/IP and sockets 4. UDP and datagrams 5. Distributed processing 6. Remote Procedure Calls (RPC) and Remote Method Invocation <p>B Building Web Based Applications</p> <ol style="list-style-type: none"> 1. HTTP protocol 2. HTML/XHTML basics 3. HTML/XHTML forms and controls 4. HTML/XHTML tables 5. Core technology of selected architecture to support dynamic web pages (e.g. Servlets) 6. Server side scripting technology of selected architecture (e.g. JSP or ASP) 7. Access and update of persistent data (e.g. a database) 8. Three tier architecture 9. State management strategies <p>C. Client-side Programming</p> <ol style="list-style-type: none"> 1. JavaScript, VB Script, and/or other prevailing client side scripting language. 2. The DOM representation of a web page 3. Java Applets, Active X, and/or other prevailing client side plug in technology. 4. Use of scripting for validations, enhanced interactivity, and/ or animations <p>D. Developing Scalable Enterprise Level Applications</p> <ol style="list-style-type: none"> 1. Technologies to extend HTML tags (e.g. custom tags)

	<ol style="list-style-type: none"> 2. Model 1 vs. Model 2 (i.e. Model View Controller MVC) 3. Separation of business logic from presentation 4. Security 5. Internationalization 6. Scalability 7. Maintenance 8. Review of sample applications (e.g. On-Line store application, E-Books, and Web-based Document Management) 9. Introduction to a framework <p>E. Team Project (or equivalent)</p> <ol style="list-style-type: none"> 1. Selection of an sample application 2. Story board design of the pages composing the application 3. Design and implementation of the application in a chosen framework <p>F. Future directions on the Web and related topics</p> <p>G. In-class examinations</p>
<p>(N) Brief Course Outline</p> <p><i>(Give sufficient detail to communicate the 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> <ol style="list-style-type: none"> A. Internet and Web Architecture B. Markup Languages including HTML and CSS C. Page Layout <ol style="list-style-type: none"> 1. CSS 2. Dividing a page 3. Positioning elements D. Server-Side Scripting using PHP E. HTML forms <ol style="list-style-type: none"> 1. Creating forms 2. Posting data 3. Validating F. Interactive Web Pages using JavaScript G. Asynchronous Updating using AJAX H. Relational Database Access and SQL I. Document Object Model (DOM) J. Model View Controller (MVC) Architecture K. User Interface Design and User Experience L. Best Practices in Usability and Accessibility

Distance Education Section

- Complete this section only if adding Distance Education to a New or Existing Course

<p>If Completing this Section, Check the Box to the Right:</p>	<p>NOTE: you must check this box if the Course has previously been approved for Distance Education</p>
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	<ul style="list-style-type: none"> • intellectual honesty 	
	<ul style="list-style-type: none"> • concern for social justice 	
	<ul style="list-style-type: none"> • civic engagement 	
	<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</p> <p>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	

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 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>	
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Teacher Education Section

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

<p>If Completing this Section, Check the Box to the Right:</p>	<p>NOTE: you must check this box if the Course/Program has previously been approved for Teacher Education related items</p>
<p>Course Designations:</p>	

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 <p>File Modified</p> <hr/> <ul style="list-style-type: none">•