UNIVERSITY OF MARY WASHINGTON – PROGRAM CHANGE PROPOSAL

Electronically submit this completed form with attachments in one file to the Chair of the College Curriculum Committee.

COLLEGE (check one):	**Arts and Sciences**	X	**Business**		**Education**	
Proposal Submitted By: Ian Finlayson			Date Prepared: August 26th 2013			
Department /Program:	**Computer Science**					

Note: for any program change entailing the addition any new courses, or revisions to existing courses, separate proposal for those course actions must also be submitted.

PROPOSAL TO CHANGE EXISTING PROGRAM (check **no than one** of the following)	
Revise requirements for existing **major**	
Revise requirements for a concentration within an existing **major**	X
Revise requirements for an existing **degree program**	
Revise requirements for existing **certificate** program	
Revise requirements for existing **minor**	
Implementation Date: FALL semester, year:	

REQUIRED ATTACHMENTS FOR CHANGES TO EXISTING PROGRAMS:

1. **Rationale statement** (Why is this program change needed? What purposes will it serve?)
2. **Impact Statement** (Provide details about the Library, space, budget, technology, and impacts created by this program change. Supporting statements from the Library, IT Department, etc. evaluating the resource impact and feasibility of the program change are required.)
3. **Catalog Copy** (Provide the *existing* Catalog Description **and** the complete statement of the *proposed* new Catalog description that reflects the program changes)

PROPOSAL TO CREATE NEW PROGRAM *NOT* REQUIRING STATE ACTION (check no more that **one** of the following)		
New concentration within existing major		Name:
New minor		Name:
New Major but NOT a new degree*		Name:
*Use ONLY for interdisciplinary majors that will be grouped as part of the "Special Majors/General Liberal Arts and Sciences" degree (CIP Code 24.0101) or reported as a BLS degree (CIP Code 24.0199)		
Implementation Date (semester and year):		

REQUIRED ATTACHMENTS FOR NEW PROGRAMS *NOT* REQUIRING STATE APPROVAL:

1. **Rationale statement** (Why is this additional program needed? What purposes will it serve?)
2. **Impact Statement** (Provide details about the Library, space, budget, technology, and impacts created by this program change. Supporting statements from the Library, IT Department, etc. evaluating the resource impact and feasibility of adding the new program are required.)
3. **Catalog Copy** (Provide the complete Catalog Description for the proposed new program)

Department Chair Approval: Email confirmation on file **Date:**_____

CCC Chair Approval:_____ Digitally signed by Timothy M. O'Donnell DN: cn=Timothy M. O'Donnell, o, ou, email=todonnel@umw.edu, c=US Date: 2013.12.05 05:52:42 -05'00' **Date:**_____

Dean Approval:_____ **Date:**_____

UCC Chair Approval:_____ **Date:**_____

***Provost Approval:**_____ **Date:**_____

**Required only in cases of proposals for new concentrations, new minors, or new majors that do not involve a new degree*

Proposal to Change the Requirements for the Computer Science Major

November 6, 2013

Contents

1 Rationale Statement

The requirement change being proposed here is to allow students in the traditional concentration of the computer science major to take any 400-level elective instead of requiring CPSC 401, Organization of Programming Languages. The rationale for this change is that there are a number of 400-level courses we offer, such as Data Mining, Modeling and Simulation, Parallel Computing and Graphics that would be beneficial for students to take. We don't believe that CPSC 401 is more essential than these other courses. By allowing students another elective in place of CPSC 401, we will give students the opportunity to pursue the areas of study that most interest them, as well as allow the faculty to teach a wider range of courses.

This proposed change to the catalog also fixes a misspelling of the word "Computer" that is present in the current catalog.

2 Impact Statement

There will be practically no impact of this program change on any university resources. It will allow for more flexibility in scheduling of courses, but should not be a substantial difference.

3 Transition Plan

This change gives students more flexibility in completing their major. CPSC 401 will be offered regularly for the next couple of years. Students under an older catalog will still be able to take CPSC 401 to complete their degree requirement. Those under a new catalog can still take it and apply it to their major as an elective.

4 Catalog Change

4.1 Existing Program Description

1. The Traditional Program.

Students study the classic discipline of Computer Science, with emphasis on the theoretical foundation and practical applications of computers and computer software. Courses explore such subjects as system architecture, object-oriented design, and computational theory, in addition to the rich mathematical underpinnings that support these topics. Graduates are well-equipped to solve problems in a broad spectrum of application areas and begin satisfying careers as software engineers, system architects, or application developers.

Computer Science: Traditional Program

41 credits as follows:

A. The following required courses: CPSC 220, 230, 305, 326, 330, 350, 401, 405, and 430.

B. One course chosen from

MATH 300 or 312 or 351.

C. One course, minimum of three credits in Computer Science numbered 400 or higher (except CPSC 499) that was not used to satisfy any of the preceding requirements. CPSC 491 fulfills this

requirement if said course is at least three credits.

D. One course, minimum three credits, in Computer Science or Mathematics numbered 300 or higher that was not used to satisfy any of the preceding requirements. CPSC 391, 491, or 499 fulfills this requirement if said course is at least three credits.

A maximum of 3 credits of CPSC 499 can be counted toward the Coomputer Science major. Note that MATH 122 (Calculus II) is a prerequisite for CPSC 326 and should be taken before the junior year. Also, note that CPSC 125 is a prerequisite for CPSC 305 and 326 and should be taken before the junior year.

4.2 Proposed Program Description

1. The Traditional Program.

Students study the classic discipline of Computer Science, with emphasis on the theoretical foundation and practical applications of computers and computer software. Courses explore such subjects as system architecture, object-oriented design, and computational theory, in addition to the rich mathematical underpinnings that support these topics. Graduates are well-equipped to solve problems in a broad spectrum of application areas and begin satisfying careers as software engineers, system architects, or application developers.

Computer Science: Traditional Program

41 credits as follows:

A. The following required courses: CPSC 220, 230, 305, 326, 330, 350, 405, and 430.

B. One course chosen from

MATH 300 or 312 or 351.

C. Two courses, minimum of three credits each in Computer Science numbered 400 or higher (except CPSC 499) that were not used to satisfy any of the preceding requirements. CPSC 491 may be counted toward this requirement if said course is at least three credits.

D. One course, minimum three credits, in Computer Science or Mathematics numbered 300 or higher that was not used to satisfy any of the preceding requirements. CPSC 391, 491, or 499 fulfills this requirement if said course is at least three credits.

A maximum of 3 credits of CPSC 499 can be counted toward the Computer Science major. Note that MATH 122 (Calculus II) is a prerequisite for CPSC 326 and should be taken before the junior year. Also, note that CPSC 125 is a prerequisite for CPSC 305 and 326 and should be taken before the junior year.