

PROGRAM PROPOSAL FORM

- ☐ **Preliminary Approval** – Check here when using this form for preliminary approval of a program proposal, and respond to the items in general terms.
- ☒ **Final Approval** – Check here when completing this form after the Vice President for Instruction has given preliminary approval to a program proposal. For final approval, complete information must be provided for each item.

Program Name: Division and Department: Type of Award: Effective Term/Year: Initiator:	<u>Foundations of Information Systems</u> <u>BCT - CISD</u> ☐ AA ☐ AS ☐ AAS ☒ Cert. ☐ Adv. Cert. ☐ Post-Assoc. Cert. ☐ Cert. of Comp. <u>200901</u> <u>Clarence Hasselbach and Neil Gudsen</u>		Program Code: <u>CTFIS</u> CIP Code:
Program Features Program's purpose and its goals. Criteria for entry into the program, along with projected enrollment figures. Connection to other WCC programs, as well as accrediting agencies or professional organizations. Special features of the program.	This program is part of an effort by the CIS Department to consolidate and streamline academic programs for academic year 2009-10. It supports proposed advanced certificates in C++ Programming and Programming in Java. The program consists of courses totaling 9 credit hours and replaces the Foundations of Computer Programming Certificate (12 credit hours).		
Need Need for the program with evidence to support the stated need.	"Research from Robert Half International and others suggests that not only will IT salaries increase slightly in 2009, but also that IT professionals with key skills could find themselves in demand The professional staffing and consulting firm estimates that IT salaries could increase by about 3.7 percent next year...." Source: CIO Magazine, October 24, 2008 http://www.cio.com/article/456568/IT_Salaries_Expected_to_Rise_in_		
Program Outcomes/Assessment State the knowledge to be gained, skills to be learned, and attitudes to be developed by students in the program. Include assessment methods that will be used to determine the effectiveness of the program.	Outcomes 1. Identify and apply the principles behind computer systems that support decision making, transaction processing and collaboration in business environments. 2. Upon completion of this program, students will be able to develop simple algorithms to use in solving certain problems. 3. Upon completion of this program, students will be able to work with binary numbering systems, Boolean logic, and logic gates as they relate to the processing of data in computing systems. 4. Use databases to manage and organize information.	Assessment method Common departmentally created final exam. Common departmentally created final exam. Common departmentally created final exam. Common departmentally created final exam.	

Please return completed form to the Office of Curriculum & Assessment and email an electronic copy to sjohn@wccnet.edu for posting on the website.

Curriculum List the courses in the program as they should appear in the catalog. List minimum credits required. Include any notes that should appear below the course list.	<table border="1"> <tr> <th colspan="2">Major/Area Requirements</th> <th>(9 Credits)</th> </tr> <tr> <td>CIS 110</td> <td>Introduction to Computer Information Systems</td> <td>3</td> </tr> <tr> <td>CPS 120</td> <td>Introduction to Computer Science</td> <td>3</td> </tr> <tr> <td>CIS 121</td> <td>Linux/UNIX I: Fundamentals</td> <td>3</td> </tr> <tr> <td colspan="2">Minimum Credits Required for the Program:</td> <td>9 Credits</td> </tr> </table>			Major/Area Requirements		(9 Credits)	CIS 110	Introduction to Computer Information Systems	3	CPS 120	Introduction to Computer Science	3	CIS 121	Linux/UNIX I: Fundamentals	3	Minimum Credits Required for the Program:		9 Credits						
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Budget Specify program costs in the following areas, per academic year:	<table border="1"> <tr> <th></th> <th>START-UP COSTS</th> <th>ONGOING COSTS</th> </tr> <tr> <td>Faculty</td> <td>No new costs</td> <td>No new costs</td> </tr> <tr> <td>Training/Travel</td> <td>No new costs</td> <td>No new costs</td> </tr> <tr> <td>Materials/Resources</td> <td>No new costs</td> <td>No new costs</td> </tr> <tr> <td>Facilities/Equipment</td> <td>No new costs</td> <td>No new costs</td> </tr> <tr> <td>Other</td> <td>No new costs</td> <td>No new costs</td> </tr> <tr> <td>TOTALS:</td> <td>No new costs</td> <td>No new costs</td> </tr> </table>				START-UP COSTS	ONGOING COSTS	Faculty	No new costs	No new costs	Training/Travel	No new costs	No new costs	Materials/Resources	No new costs	No new costs	Facilities/Equipment	No new costs	No new costs	Other	No new costs	No new costs	TOTALS:	No new costs	No new costs
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Program Description for Catalog and Web site	Description: The Foundations of Information Systems Certificate provides a conceptual framework for those students wishing to become a professional in computer information systems or computer programming. The student will be introduced to computer science programming logic, as well as developing algorithms to solve programming problems. In addition, students will acquire an understanding of the impact of information systems and information technology on the business, industrial, and other environments in which they will work as programmers or analysts.																							
Program Information	Accreditation/Licensure - None Advisors – Clarence Hasselbach, Khaled Mansour Advisory Committee - CIS Advisory Committee Admission requirements - College level Reading and Writing Articulation agreements - Eastern Michigan University in progress Continuing eligibility requirements - 2.0 grade point average																							

Assessment plan:

Program outcomes to be assessed	Assessment tool	When assessment will take place	Courses/other populations	Number students to be assessed
1. Identify and apply the principles behind computer systems that support decision making, transaction processing and collaboration in business environments.	Common departmentally created final exam.	Fall 2011 and then every three years	Minimum of one section of CPS 120	Random selection (min. 20).
2. Upon completion of this program, students will be able to develop simple algorithms to use in solving certain problems.	Common departmentally created final exam.	Fall 2011 and then every three years	Minimum of one section of CPS 120	Random selection (min. 20).
3. Upon completion of this program, students will be able to work with binary numbering systems, Boolean logic, and logic gates as they relate to the processing of data in computing systems.	Common departmentally created final exam.	Fall 2011 and then every three years	Minimum of one section of CPS 120	Random selection (min. 20).
4. Use databases to manage and organize information.	Common departmentally created final exam.	Fall 2011 and then every three years	Minimum of one section of CPS 120	Random selection (min. 20).

Scoring and analysis plan:

1. Indicate how the above assessment(s) will be scored and evaluated (e.g. departmentally developed rubric, external evaluation, other). Attach the rubric.

Departmentally developed rubric. See attached.

2. Indicate the standard of success to be used for this assessment.

At least 75% of students must score at least 70% or better on all learning outcome evaluations.

3. Indicate who will score and analyze the data.

Assessment materials will be analyzed by the CIS Department.

4. Explain how and when the assessment results will be used for program improvement.

The department will review the program if the standard of success is not met.

REVIEWER	PRINT NAME	SIGNATURE	DATE
Department Chair/ Area Director	Clarence Hasselbach	Clarence Hasselbach	11/24/2008
Dean	Rosemary Wilson	Rosemary Wilson	11/25/08
Vice President for Instruction ☐ Approved for Development ☒ Final Approval	Roger M. Palay	Roger M. Palay	12/22/08
President	Larry Whitworth	Larry Whitworth	4/28/09
Board Approval			04/28/09

Logged 11/26/08 s/jg 1/6/09 for
Office of Curriculum & Assessment

Program Information Report

School of Information Technology

The School of Information Technology gathers the diverse areas that make up the computer technology of today. From basic programming languages to systems development through networking, these programs provide the core of information technology. Develop skills in computer forensics or learn how to run a successful e-business, the growing field of applied information technology is waiting for you.

Washtenaw Community College offers programs at several levels for students who want to begin new careers, or advance in their existing careers. The first level is the certificate, which can vary from nine to thirty-six credits, depending on the field. Certificates generally prepare students for entry-level jobs.

After completing a certificate, students can progress to the next level, the advanced certificate. The credit hours required for these programs also vary. This type of certificate provides a more specialized level of skill development, and often allows students to upgrade their positions at their places of employment.

The next level, an Associate in Applied Science, is available for some programs. For some career fields, it is possible to earn a certificate, advanced certificate, and an Associate in Applied Science degree in the same field. In these cases, the credit hours from the certificate and advanced certificate can be applied to the credit hours needed for the Associate in Applied Science degree.

Alternatively, students can earn an AAS in Occupational Studies by completing a certificate, advanced certificate and General Education requirements.

Programming

Learn the foundation of computer programming or specialize in a programming language through these programs.

Foundations of Information Systems (CTFIS)

Certificate

Program Effective Term: Fall 2009

The Foundations of Information Systems certificate provides a conceptual framework for those students wishing to become a professional in computer information systems or computer programming. The student will be introduced to computer science programming logic, as well as developing algorithms to solve programming problems. In addition, students will acquire an understanding of the impact of information systems and information technology on the business, industrial, and other environments in which they will work as programmers or analysts.

Continuing Eligibility Requirements:

Students must maintain a minimum 2.0 GPA.

Major/Area Requirements		(9 credits)
CIS 110	Introduction to Computer Information Systems	3
CIS 121	Linux/UNIX I: Fundamentals	3
CPS 120	Introduction to Computer Science	3

Minimum Credits Required for the Program:

9

Foundations of Information Systems Certificate

Program requirements shown below are for catalog year: 2009-2010

Description:

The Foundations of Information Systems Certificate provides a conceptual framework for those students wishing to become a professional in computer information systems or computer programming. The student will be introduced to computer science programming logic, as well as developing algorithms to solve programming problems. In addition, students will acquire an understanding of the impact of information systems and information technology on the business, industrial, and other environments in which they will work as programmers or analysts.

Contact Information:

Division: Business and Computer Technologies

School: School of Information Technology

Department: Computer Instruction

Advisors: Khaled Mansour, Clarence Hasselbach

Admission Requirements:

Students must have an Academic Math Level of 4.

Major/Area Requirements

(9 Credits)

<u>CIS 110</u>	Introduction to Computer Information Systems	3
<u>CPS 120</u>	Introduction to Computer Science	3
<u>CIS 121</u>	Linux/UNIX I: Fundamentals	3

Minimum Credits Required for the Program:

9 Credits