

Program Information Report**Mobile Device Programming (CVCSMD)****Advanced Certificate****Program Effective Term: Fall 2016**

This program prepares students to develop applications that run on mobile devices such as an iPhone, iPad or Android phone. This is a rapidly developing market. Students will develop programming skills using the current programming language(s) need to success in jobs such as programmer/analyst.

Program Admission Requirements:

Academic Math Level 4 is required to enroll in CPS 161 and above

Major/Area Requirements		(19 credits)
CPS 161	An Introduction to Programming with Java	4
CPS 251	Android Programming Using Java	4
CPS 255	IOS/Apple Programming Fundamentals	4
CPS 256	Advanced IOS/Apple Programming	4
CIS 282 or	Database Principles and Application	
CPS 298	Professional Team Programming	3-4

Minimum Credits Required for the Program:**19**

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>Mobile Device Programming</u> <u>BCT</u> <input type="checkbox"/> AA <input type="checkbox"/> AS <input type="checkbox"/> AAS <input checked="" type="checkbox"/> Cert. <input checked="" type="checkbox"/> Adv. Cert. <input type="checkbox"/> Post-Assoc. Cert. <input type="checkbox"/> Cert. of Comp. <u>Fall 2016</u> <u>Clem Hasselbach</u>		Program Code: CPC SMD CNC SMD CIP Code: 11.0103
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 prepares students to develop applications that run on mobile devices such as an iPhone, iPad or Android phone. This is a rapidly developing market. Students will develop programming skills using the current programming language(s) needed to succeed in jobs such as programmer/analyst.		
Need Need for the program with evidence to support the stated need.	The purpose of this program is to provide our students with programming skills applicable to the growing iPhone and Android platform market. According to the Bureau of Labor Statistics, the job outlook for software developers is expected to grow at a rate of 22% over the next 10 years, much faster than average ¹ . The expectation is that there will be 222,600 additional jobs nationwide by 2022. Furthermore, the median salary for an application software developer was \$90,060 per year in 2012 ¹ . ¹ Bureau of Labor Statistics, Occupational Outlook Handbook		
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.	<u>Outcomes</u> 1. Develop Java programs that run on Android devices. 2. Develop Programs that run on IOS/Apple devices.	<u>Assessment method</u> 1. Programming Exercise 2. Programming Exercise	

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> <tr> <td>CPS 161 An Introduction to Programming with Java</td> <td>4</td> </tr> <tr> <td>CPS 251 Android Programming using Java</td> <td>4</td> </tr> <tr> <td>CPS 255 IOS/Apple Programming Fundamentals</td> <td>4</td> </tr> <tr> <td>CPS 256 Advanced IOS/Apple Programming</td> <td>4</td> </tr> <tr> <td>CIS282 Database Principles and Application</td> <td></td> </tr> <tr> <td>or CPS298 Professional Team Programming</td> <td>3 – 4</td> </tr> <tr> <td>Total Credits</td> <td>19 – 20</td> </tr> </table>			CPS 161 An Introduction to Programming with Java	4	CPS 251 Android Programming using Java	4	CPS 255 IOS/Apple Programming Fundamentals	4	CPS 256 Advanced IOS/Apple Programming	4	CIS282 Database Principles and Application		or CPS298 Professional Team Programming	3 – 4	Total Credits	19 – 20						
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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>\$.</td> <td>\$.</td> </tr> <tr> <td>Training/Travel</td> <td>.</td> <td>.</td> </tr> <tr> <td>Materials/Resources</td> <td>.</td> <td>.</td> </tr> <tr> <td>Facilities/Equipment</td> <td>.</td> <td>.</td> </tr> <tr> <td>Other</td> <td>.</td> <td>.</td> </tr> <tr> <td>TOTALS:</td> <td>\$.</td> <td>\$.</td> </tr> </table>		START-UP COSTS	ONGOING COSTS	Faculty	\$.	\$.	Training/Travel	.	.	Materials/Resources	.	.	Facilities/Equipment	.	.	Other	.	.	TOTALS:	\$.	\$.	
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Program Description for Catalog and Web site	This program prepares students to develop applications that run on mobile devices such as an iPhone, iPad or Android phone. This is a rapidly developing market. Students will develop programming skills using the current programming language(s) needed to succeed in jobs such as programmer/analyst.																						
Program Information	Accreditation/Licensure - Advisors - Clem Hasselbach, Sandro Tuccinardi Advisory Committee - Admission requirements – Academic Math Level 4 is required to enroll in CPS 161 and above Articulation agreements - Continuing eligibility requirements -																						

Assessment plan:

Program outcomes to be assessed	Assessment tool	When assessment will take place	Courses/other populations	Number students to be assessed
1. Develop Java programs that run on Android devices	1. Programming Exercise	Winter 2020	All sections of CPS 251	All students
2. Develop Programs that run on IOS/Apple devices	2. Programming Exercise	Winter 2020	All sections of CPS 256	All students

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.

Data will be scored using a departmentally-developed rubric

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

70% of the students will score 75% or better

3. Indicate who will score and analyze the data.

Departmental faculty

Cheryl Hasselbach *Clara Hamill* 12/4/15

REVIEWER	PRINT NAME	SIGNATURE	DATE
Department Chair/Area Director	John Trame	<i>John Trame</i>	12/7/15
Dean	Kim Hurns	<i>Kim Hurns</i>	12/15/15
Vice President for Instruction <input type="checkbox"/> Approved for Development <input type="checkbox"/> Final Approval	Michael Nealon	<i>Michael Nealon</i>	2/12/16
President	Rose Bellanca	<i>Rose B. Bellanca</i>	4/6/16
Board Approval			4/26/16