Program Information Report

Program in Java (CVJVPR)
Advanced Certificate
Program Effective Term: Fall 2016

Program is also available online

This program is intended for students who need to acquire skills in the Java programming language. The program also gives students skills that can be applied to the related jobs of programmer/analyst.

Program Admission Requirements:
Prior programming experience is recommended. Students who have no programming experience should consider taking CPS 120.

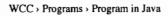| Major/Area Requirements		(16 credits)
CPS 161	An Introduction to Programming with Java	4
CPS 261	Advanced Java Concepts	4
	Select two of the following courses: CPS 251, CPS 276 or CPS 278, CPS 298	8

Minimum Credits Required for the Program: **16**

PROGRAM CHANGE OR DISCONTINUATION FORM

Program Code: CVJVPR

Program Name: ~~Program in~~ Java ~~Programming~~ *ok* Program in Java

Effective Term: Fall 2016

Division Code: BCT

Department: CIS/CPS

Directions:

1. Attach the current program listing from the WCC catalog or Web site and indicate any changes to be made.

2. Draw lines through any text that should be deleted and write in additions. Extensive narrative changes can be included on a separate sheet.

3. Check the boxes below for each type of change being proposed. Changes to courses, discontinuing a course, or adding new courses as part of the proposed program change, must be approved separately using a Master Syllabus form, but should be submitted at the same time as the program change form.

Requested Changes:

☐ Review
☒ Remove course(s): _____ CPS255_____
☒ Add course(s): _____ CPS298 *CPS 276* _____
☒ ~~Program title (title was~~ ~~Program) in Java~~
☐ Description
☐ Type of award
☐ Advisors
☐ Articulation information

☐ Program admission requirements
☐ Continuing eligibility requirements
☐ Program outcomes
☐ Accreditation information
☐ Discontinuation (attach program discontinuation plan that includes transition of students and timetable for phasing out courses)
☐ Other_____

Show all changes on the <u>attached page from the catalog</u>.

Rationale for proposed changes or discontinuation:

CPS255 (Apple programming) now belongs in the Mobile certificate. To replace it we have added CPS298 to provide a Team Programming experience.

Financial/staffing/equipment/space implications:

List departments that have been consulted regarding their use of this program.

Signatures:

Reviewer	Print Name	Signature	Date
Initiator	Clem Hasselbach	*Clem Hasselbach*	12/4/2015
Department Chair	John Trame	*John Trame*	12/14/2015
Division Dean/Administrator	Kim Hurns	*[signature]*	12/15/15
Vice President for Instruction	Michael Nealon	*[signature]*	2/12/16
President			

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Please submit completed form to the Office of Curriculum and Assessment (SC 257).

ACADEMICS

Handwritten: New Title — Java Programming — Title remaining the same.

Program in Java (CVJVPR)
Advanced Certificate

Program is also available online.   2013 - 2014   2014 - 2015   2015 - 2016

Description

This program is intended for students who need to acquire skills in the Java programming language. The program also gives students skills that can be applied to the related jobs of programmer/analyst.

Admissions Requirements

Prior programming experience is recommended. Students who have no programming experience should consider taking CPS 120.

Contact Information

Division: Business/Computer Technologies
Department: Computer Instruction Dept
Advisors: Philip Geyer
Clarence Hasselbach
Khaled Mansour

Requirements
(Items marked in orange are available online.)

Handwritten: CPS 298

Major/Area Requirements

Class	Title	Credits
CPS 161	An Introduction to Programming with Java	4
CPS 261	Advanced Java Concepts	4
	Select two of the following courses: CPS 251, CPS 265, CPS 278. *CPS 276*	8
Total		

Handwritten: Select 2 of the following courses: CPS251, CPS298 CPS278 , CPS 276

Total Credits Required: 16

Gainful Employment Disclosures

Program Information Report

Program in Java (CVJVPR)
Advanced Certificate
Program Effective Term: **Fall 2013**

This program is intended for students who need to acquire skills in the Java programming language. The program also gives students skills that can be applied to the related jobs of programmer/analyst.

Program Admission Requirements:
Prior programming experience is recommended. Students who have no programming experience should consider taking CPS 120.

CPS 161	An Introduction to Programming with Java	4
CPS 261	Advanced Java Concepts	4
Elective	Select two of the following courses: CPS 251, CPS 255, CPS 278.	8

Minimum Credits Required for the Program: **16**

PROGRAM CHANGE OR DISCONTINUATION FORM

Program Code: CVJAV Program Name: Programming in Java

Effective Term: Fall 2012

Division Code: BCT **Department:** CPS CISD

Directions:

1. Attach the current program listing from the WCC catalog or Web site and indicate any changes to be made.

2. Draw lines through any text that should be deleted and write in additions. Extensive narrative changes can be included on a separate sheet.

3. Check the boxes below for each type of change being proposed. Changes to courses, discontinuing a course, or adding new courses as part of the proposed program change, must be approved separately using a Master Syllabus form, but should be submitted at the same time as the program change form.

Requested Changes:

☐ Review
☐ Remove course(s): _____
☐ Add course(s): _____
☐ Program title (title was _____)
☐ Description
☐ Type of award
☐ Advisors
☐ Articulation information

☐ Program admission requirements
☐ Continuing eligibility requirements
☐ Program outcomes
☐ Accreditation information
☐ Discontinuation (attach program discontinuation plan that includes transition of students and timetable for phasing out courses)
☒ Other _____ Admission Requirements _____

Show all changes on the <u>attached page from the catalog.</u>

Rationale for proposed changes or discontinuation:

Remove the requirement for completion of the Foundations of Information Systems. It was a mistake to have this as a requirement as the 2 certificates have very little to do with each other.

Financial/staffing/equipment/space implications:

List departments that have been consulted regarding their use of this program.

Signatures:

Reviewer	Print Name	Signature	Date
Initiator	Clarence Hasselbach	*Clarence Hasselbach*	2/1/12
Department Chair	Clarence Hasselbach	*Clarence Hasselbach*	2/1/12
Division Dean/Administrator	Rosemary Wilson	*Rosemary Wilson*	2/1/12
Vice President for Instruction	Stuart Blacklaw	*Blacklaw*	3-12-12
President			

Do not write in shaded area. Entered in: Banner_____ C&A Database 4/5/12 Log File 4/5/12 Board Approval_____

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

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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 networking or programming in the growing field of applied information technology.

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 (if it exists) and General Education requirements.

Programming

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

Programming in Java (CVJAV)
Advanced Certificate
Program Effective Term: Fall 2012

This program is intended for students who need to acquire skills in the Java programming language. The program also gives students skills that can be applied to the related jobs of programmer/analyst.

Program Admission Requirements:
Prior programming experience is recommended. Students who have no programming experience should consider taking CPS 120.

Major/Program Requirements		Credits
CPS 161	An Introduction to Programming with Java	4
CPS 261	Advanced Java Concepts	4
CPS 251 or	Android Programming Using Java	
CPS 278	Java Server Programming	4

Minimum Credits Required for the Program: **12**

PROGRAM CHANGE OR DISCONTINUATION FORM

Program Code: **Program Name: Programming in Java (CVJAV)**   **Effective Term: Fall 2011**

Division Code: **Department:** CPS

Directions:

1. Attach the current program listing from the WCC catalog or Web site and indicate any changes to be made.

2. Draw lines through any text that should be deleted and write in additions. Extensive narrative changes can be included on a separate sheet.

3. Check the boxes below for each type of change being proposed. Changes to courses, discontinuing a course, or adding new courses as part of the proposed program change, must be approved separately using a Master Syllabus form, but should be submitted at the same time as the program change form.

Requested Changes:

☐ Review
☒ Remove course(s): _CIS121, CIS221, CIS282, CPS120, CPS171, CPS271, CPS293, INP150_____
☒ Add course(s): _____cps251 or cps278_____
☐ Program title (title was _____)
☐ Description
☐ Type of award
☐ Advisors
☐ Articulation information

☐ Program admission requirements
☐ Continuing eligibility requirements
☐ Program outcomes
☐ Accreditation information
☐ Discontinuation (attach program discontinuation plan that includes transition of students and timetable for phasing out courses)
☐ Other_____

Show all changes on the <u>attached page from the catalog</u>.

Rationale for proposed changes or discontinuation:

The Programming in Java(CVJAV) certificate should have 3 courses required. The first 2 are CPS161 and CPS261. The third course is either CPS251 or CPS278 (previous name CIS278). Remove the previous choice for the third course which was a pick from the list(CIS121, CIS221, CIS282, CPS120, CPS171, CPS271, CPS293, or INP150)

When we created this certificate we didn't have a Java-related third course that received consistent enrollment. CPS278 and CPS251 are java courses that we believe should receive sufficient enrollment to work for this certificate.

Financial/staffing/equipment/space implications:
     None

List departments that have been consulted regarding their use of this program.
     None

Signatures:

Reviewer	Print Name	Signature	Date
Initiator	Clarence Hasselbach	*Clarence Hasselbach*	11/24/10
Department Chair	Clarence Hasselbach	*Clarence Hasselbach*	11/24/10
Division Dean/Administrator	Rosemary Wilson	*Rosemary Wilson*	11/29/10
Vice President for Instruction	Stuart Blacklaw	*Stuart Blacklaw*	1/18/11
President			

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3/4/11

Quick Links

Programs to achieve your educational goals

Certificates & Degrees

WCC Home: Academic Information: Credit Offerings: Certificates & Degrees

🖶 Print-friendly format

Certificates and Degrees:

| Accreditations |
| Degree List |
| Degrees by School |
| Degree Types |
| Certificates & Degrees Home |

Credit Offerings:

| Certificates and Degrees |
| Class Schedule |
| College Catalog |
| Course Information |
| Distance Learning |
| Steps to Take Credit Classes |
| Credit Offerings Home |

Programming in Java (CVJAV)
Advanced Certificate

Program requirements shown below are for catalog year: 2010 - 2011   Change Year

Description:
This program is intended for students who need to acquire skills in the Java programming language. The program also gives students skills that can be applied to the related jobs of programmer/analyst.

Contact Information:
Division: Business and Computer Technologies
School: School of Information Technology
Department: Computer Instruction
Advisors: Philip Geyer, Clarence Hasselbach, Khaled Mansour

Admission Requirements:
Completion of the Foundations of Information Systems certificate or equivalent.

Major/Area Requirements	(11 - 12 Credits)
CPS 161 * An Introduction to Programming with Java	4
CPS 261 * Programming Data Structures in Java	4
Complete one course from the following: CPS 121, CIS 221, CIS 281, CPS 120, CPS 171, CPS 271, CPS 293 or INP 150.	~~3-4~~
[handwritten:] CPS 251 Android Java ~~Prog.~~ OR CPS278 Server Side Java	*[handwritten:]* 4
Minimum Credits Required for the Program:	**11 - 12 Credits**

Footnotes:
See the Eastern Michigan University Web site for transfer equivalency: http://it.emich.edu/service/online/tranequiv/

This website is for informational purposes only and is not to be construed as a binding offer or contract between WCC and the student. The information presented here is believed accurate, but is NOT guaranteed and is subject to change without notice.

For official information, see an Advisor.

School of Information Technology

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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.

Programming in Java (CVJAV)
Advanced Certificate
Program Effective Term: Fall 2011

This program is intended for students who need to acquire skills in the Java programming language. The program also gives students skills that can be applied to the related jobs of programmer/analyst.

Program Admission Requirements:
Completion of the Foundations of Information Systems certificate or equivalent.

Major/Area Requirements		(12 credits)
CPS 161	An Introduction to Programming with Java*	4
CPS 261	Programming Data Structures in Java*	4
CPS 251 or	Android Programming Using Java	
CPS 278	Java Server Programming	4

Minimum Credits Required for the Program: **12**

Notes:

*See the Eastern Michigan University Web site for transfer equivalency: http://it.emich.edu/service/online/tranequiv/.

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:	Programming in Java	**Program Code:**
Division and Department:	BCT - CISD	CVJAV
Type of Award:	☐ AA ☐ AS ☐ AAS ☐ Cert. ☒ Adv. Cert. ☐ Post-Assoc. Cert. ☐ Cert. of Comp.	
Effective Term/Year:	200901	**CIP Code:**
Initiator:	Clarence Hasselbach and Neil Gudsen	11.0202

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 has been developed in an effort to consolidate and streamline certificate offerings of the CIS Department. It replaces the Java Developer Advanced Certificate.
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. Object Oriented Foundations: At the conclusion of this program, students will be able to identify and analyze java foundational concepts such as inheritance, polymorphism, interfaces, abstract classes, exceptions, overloading, etc. 2. Data Structures: At the conclusion of this program students will be able to identify and analyze java data structures such as ArrayList, LinkedList, TreeMap, HashMap, etc. 3. Advanced Topics: At the conclusion of this program students will be able to identify and analyze Multi-tasking concepts, I/O streams, and networking. 4. Sound Programming Practices: At the conclusion of this program, students will demonstrate sound software engineering techniques in developing a working software program. This will include creating a program that is logical, easy to understand, with properly indented code to solve a stated problem.	Assessment method Common departmentally created final exam.

Curriculum	Major/Area Requirements	(11-12 Credits)
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.	CPS 161* An Introduction to Programming with Java	4
	CPS 261 ** Programming Data Structures in Java	4
	Complete one course:	3-4
	CIS 121 Unix/Linux Fundamentals (3)	
	CIS 282 Relational Database Concepts & Application (3)	
	CPS 120 Intro to Computer Science (3)	
	CPS 293 C# .Net (4)	
	CPS 171 Introduction to Programming with C++ (4)	
	CPS 271 Object Feature of C++ (4)	
	CIS 221 Linux/Unix Programming/Scripting I (3)	
	INP 150 Web Coding I (3)	
	Minimum Credits Required for the Program: (11-12) Credits	
	*Transfers to Eastern Michigan University as COSC 111	
	**Transfers to Eastern Michigan University as COSC 211	

Budget		START-UP COSTS	ONGOING COSTS
Specify program costs in the following areas, per academic year:	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

Program Description for Catalog and Web site	This program is intended for students who need to acquire skills in the Java programming language. The program also gives students skills that can be applied to the related jobs of programmer/analyst.
Program Information	**Accreditation/Licensure** - None

Advisors – Clarence Hasselbach, Philip Geyer, Khaled Mansour

Advisory Committee - CIS Advisory Committee

Admission requirements - Completion of Foundations of Information Systems Certificate of equivalent degree or experience.

Articulation agreements - Eastern Michigan University in progress

Continuing eligibility requirements - None |

Assessment plan:

Program outcomes to be assessed	Assessment tool	When assessment will take place	Courses/other populations	Number students to be assessed
Object Oriented Foundations: At the conclusion of this program, students will be able to identify and analyze java foundational concepts such as inheritance, polymorphism, interfaces, abstract classes,	Common final examination to be prepared by the CIS department	Beginning Fall 2011 and every three years thereafter	All sections of CPS 261	Random sample of 50% of students

exceptions, overloading, etc.				
Data Structures: At the conclusion of this program students will be able to identify and analyze java data structures such as ArrayList, LinkedList, TreeMap, HashMap, etc.	Common final examination to be prepared by the CIS department	Beginning Fall 2011 and every three years thereafter	All sections of CPS 261	Random sample of 50% of students
Advanced Topics: At the conclusion of this program students will be able to identify and analyze Multi-tasking concepts, I/O streams, and networking.	Common final examination to be prepared by the CIS department	Beginning Fall 2011 and every three years thereafter	All sections of CPS 261	Random sample of 50% of students
Sound Programming Practices: At the conclusion of this program, students will demonstrate sound software engineering techniques in developing a working software program. This will include creating a program that is logical, easy to understand, with properly indented code to solve a stated problem.	Common final examination to be prepared by the CIS department	Beginning Fall 2011 and every three years thereafter	All sections of CPS 261	Random sample of 50% of 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.

   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 blind-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	11/13/2008
Dean	Rosemary Wilson	Rosemary Wilson	11/14/08
Vice President for Instruction ☐ Approved for Development ☒ Final Approval	Roger M. Palay	Roger M. Palay	12/22/08
President	Larry Whitworth	Larry C Whitworth	4/28/09
Board Approval			04/28/09

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Office of Curriculum & Assessment

Program Proposal Form 8-2005

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.

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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.

Programming in Java (CVJAV)
Advanced Certificate
Program Effective Term: Fall 2009

This program is intended for students who need to acquire skills in the Java programming language. The program also gives students skills that can be applied to the related jobs of programmer/analyst.

Program Admission Requirements:
Completion of the Foundations of Information Systems certificate or equivalent.

Major/Area Requirements		(11 credits)
CPS 161	An Introduction to Programming with Java*	4
CPS 261	Programming Data Structures in Java*	4
	Complete one course from the following: CIS 121, CIS 221, CIS 282, CPS 120, CPS 171, CPS 271, CPS 293 or INP 150.	3-4

Minimum Credits Required for the Program: **11**

Notes:

See the Eastern Michigan University Web site for transfer equivalency: http://it.emich.edu/service/online/tranequiv/.

Programming in Java
Advanced Certificate

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

Description:
This program is intended for students who need to acquire skills in the Java programming language. The program also gives students skills that can be applied to the related jobs of programmer/analyst.

Contact Information:
Division: Business and Computer Technologies
School: School of Information Technology
Department: Computer Instruction
Advisors: Clarence Hasselbach, Khaled Mansour

Major/Area Requirements		(11-12 Credits)
CPS 161*	An Introduction to Programming with Java	4
CPS 261 **	Programming Data Structures in Java	4
Complete one course:		3-4

      CIS 121 Unix/Linux Fundamentals (3)

      CIS 282 Relational Database Concepts & Application (3)

      CPS 120 Intro to Computer Science (3)

      CPS 293 C# .Net (4)

      CPS 171 Introduction to Programming with C++ (4)

      CPS 271 Object Feature of C++ (4)

      CIS 221 Linux/Unix Programming/Scripting I (3)

      INP 150 Web Coding I (3)

Minimum Credits Required for the Program: **(11-12) Credits**

*Transfers to Eastern Michigan University as COSC 111

**Transfers to Eastern Michigan University as COSC 211