Washtenaw Community College Comprehensive Report

CPS 261 Advanced Java Concepts
Effective Term: Fall 2011

Course Cover

Division: Business and Computer Technologies
Department: Computer Instruction
Discipline: Computer Science
Course Number: 261
Org Number: 13400
Full Course Title: Advanced Java Concepts
Transcript Title: Advanced Java Concepts
Is Consultation with other department(s) required: No
Publish in the Following: College Catalog , Time Schedule , Web Page
Reason for Submission: Course Change
Change Information:
Course title
Course description
Outcomes/Assessment
Objectives/Evaluation
Rationale: This syllabus as it currently stands does not reflect what is actually taught.
Proposed Start Semester: Fall 2011
Course Description: This course is a continuation of the Java concepts covered in CPS 161. Topics covered include input/output, graphical user interfaces associated with AWT/Swing, data structures, networking, and multitasking (Threads). Students entering this class should have a good understanding of object-oriented programming concepts such as inheritance and polymorphism.

Course Credit Hours

Variable hours: No
Credits: 4
Lecture Hours: Instructor: 60 **Student:** 60
Lab: Instructor: 0 **Student:** 0
Clinical: Instructor: 0 **Student:** 0

Total Contact Hours: Instructor: 60 **Student:** 60
Repeatable for Credit: NO
Grading Methods: Letter Grades
Audit
Are lectures, labs, or clinicals offered as separate sections?: NO (same sections)

College-Level Reading and Writing

College-level Reading & Writing

College-Level Math

Requisites

Prerequisite
Academic Reading and Writing Levels of 6; CPS 161 minimum grade "C"

General Education

Request Course Transfer

Proposed For:

Eastern Michigan University

Student Learning Outcomes

1. Identify input/output techniques including the associated exception handling required.
   Assessment 1
   Assessment Tool: Multiple choice and short answer questions on a departmental exam.
   Assessment Date: Fall 2013
   Assessment Cycle: Every Three Years
   Course section(s)/other population: All students taking course
   Number students to be assessed: 100%
   How the assessment will be scored: Departmental exam with fixed answers (multiple choice, fill in the blank, etc.).
   Standard of success to be used for this assessment: The standard for success will be that 70% of the students who take the exam will score 70% or better.
   Who will score and analyze the data: Departmental faculty

2. Identify graphical user interface (GUI) techniques needed to provide a good program interface for a user.
   Assessment 1
   Assessment Tool: Multiple choice and short answer questions on a departmental exam.
   Assessment Date: Fall 2013
   Assessment Cycle: Every Three Years
   Course section(s)/other population: All sections
   Number students to be assessed: All students
   How the assessment will be scored: Departmental exam with fixed answers (multiple choice, fill in the blank, etc.)
   Standard of success to be used for this assessment: The standard for success will be that 70% of the students who take the exam will score 70% or better.
   Who will score and analyze the data: Departmental faculty

3. Identify multitasking and socket programming techniques necessary to work in an internet driven world.
   Assessment 1
   Assessment Tool: Multiple choice and short answer questions on a departmental exam.
   Assessment Date: Fall 2013
   Assessment Cycle: Every Three Years
   Course section(s)/other population: All sections
   Number students to be assessed: All students
   How the assessment will be scored: Departmental exam with fixed answers (multiple choice, fill in the blank, etc.)
   Standard of success to be used for this assessment: The standard for success will be that 70% of the students who take the exam will score 70% or better.
   Who will score and analyze the data: Departmental faculty

4. Identify Java data structures and algorithms necessary for efficient programs such as trees, hashing and stacks.
   Assessment 1
   Assessment Tool: Multiple choice and short answer questions on a departmental exam.
   Assessment Date: Fall 2013
   Assessment Cycle: Every Three Years
   Course section(s)/other population: All sections
   Number students to be assessed: All students

How the assessment will be scored: Departmental exam with fixed answers (multiple choice, fill in the blank, etc.)
Standard of success to be used for this assessment: The standard for success will be that 70% of the students who take the exam will score 70% or better.
Who will score and analyze the data: Departmental faculty

Course Objectives

1. Demonstrate exception handling basics.
   Methods of Evaluation
   Class Attendance, Participation or Work
   Exams/Tests
   Software Application/Program
   Matched Outcomes

2. Demonstrate processing of text and binary files.
   Methods of Evaluation
   Class Attendance, Participation or Work
   Exams/Tests
   Software Application/Program
   Matched Outcomes

3. Use Java data structure classes such as stacks, queues, trees, hashing and iterators.

   Methods of Evaluation
   Class Attendance, Participation or Work
   Exams/Tests
   Software Application/Program
   Matched Outcomes

4. Analyze the complexity of algorithms in using the standard Java data structures such as stacks, queues, trees and hashing.

   Methods of Evaluation
   Class Attendance, Participation or Work
   Exams/Tests
   Software Application/Program
   Matched Outcomes

5. Create a good user interface using Java GUI classes.
   Methods of Evaluation
   Class Attendance, Participation or Work
   Exams/Tests
   Software Application/Program
   Matched Outcomes

6. Use Java multitasking and socket programming techniques.

   Methods of Evaluation
   Class Attendance, Participation or Work
   Exams/Tests
   Software Application/Program
   Matched Outcomes

New Resources for Course

Course Textbooks/Resources

Textbooks
Savitch. *Absolute Java*, ed. Addison-Wesley, 2005
Manuals
Periodicals
Software

Equipment/Facilities

Level III classroom
Data projector/computer

Reviewer	Action	Date
Faculty Preparer:	*Faculty Preparer*	*Feb 05, 2011*
Department Chair/Area Director: *Clem. Hasselbach*	*Recommend Approval*	*Feb 05, 2011*
Dean: *Rosemary Wilson*	*Recommend Approval*	*Feb 07, 2011*
Vice President for Instruction: *Stuart Blacklaw*	*Approve*	*Mar 15, 2011*