Washtenaw Community College Comprehensive Report

WEB 250 Web Development IV
Effective Term: Fall 2014

Course Cover

Division: Business and Computer Technologies
Department: Digital Media Arts
Discipline: Web Design and Development
Course Number: 250
Org Number: 14500
Full Course Title: Web Development IV
Transcript Title: Web Development IV
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 discipline code & number**
- **Course title**
- **Course description**
- **Credit hours**
- **Total Contact Hours**
- **Distribution of contact hours**
- **Pre-requisite, co-requisite, or enrollment restrictions**
- **Outcomes/Assessment**
- **Objectives/Evaluation**

Rationale: Because of the length of the certificate programs and the increasing complexity of the subject matter, student success and completion rates have been below expectations. With students unable to complete all courses because of limited offerings we are revising the program and combining material from Course 281, 275 into one course. We are also increasing credit hours to have more time with students because of the complexity of the material covered.
Proposed Start Semester: Fall 2014
Course Description: In this course, students will focus on Python for web development. Server-side concepts are stressed, including authentication, sessions, data storage and retrieval and modular web development. This course contains material previously taught in INP 281.

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

Level 1

Requisites

Prerequisite

WEB 230 minimum grade "C"

General Education

General Education Area 7 - Computer and Information Literacy

Assoc in Arts - Comp Lit
Assoc in Applied Sci - Comp Lit
Assoc in Science - Comp Lit

Request Course Transfer

Proposed For:

Student Learning Outcomes

1. Develop modular web sites/applications.
   Assessment 1
   Assessment Tool: Homework assignments/projects
   Assessment Date: Fall 2017
   Assessment Cycle: Every Three Years
   Course section(s)/other population: All
   Number students to be assessed: Random sample of 50% of the students with a minimum of one full section.
   How the assessment will be scored: Departmentally-developed rubric
   Standard of success to be used for this assessment: 80% or more of the students will score an average of 70% or higher.
   Who will score and analyze the data: External evaluators will score the data, WEB full-time faculty will analyze the data.

2. Develop web application that require authentication and maintains state via sessions and/or cookies.
   Assessment 1
   Assessment Tool: Homework assignments/projects
   Assessment Date: Fall 2017
   Assessment Cycle: Every Three Years
   Course section(s)/other population: All
   Number students to be assessed: Random sample of 50% of the students with a minimum of one full section.
   How the assessment will be scored: Departmentally-developed rubric
   Standard of success to be used for this assessment: 80% or more of the students will score an average of 70% or higher.
   Who will score and analyze the data: External evaluators will score the data, WEB full-time faculty will analyze the data.

3. Develop web applications with text files used for data storage.
   Assessment 1
   Assessment Tool: Homework assignments/projects
   Assessment Date: Fall 2017
   Assessment Cycle: Every Three Years
   Course section(s)/other population: All
   Number students to be assessed: Random sample of 50% of the students with a

minimum of one full section.
How the assessment will be scored: Departmentally-developed rubric
Standard of success to be used for this assessment: 80% or more of the students will score an average of 70% or higher.
Who will score and analyze the data: External evaluators will score the data, WEB full-time faculty will analyze the data.

4. Develop web applications that will get data from a database.
   Assessment 1
   Assessment Tool: Homework assignments/projects
   Assessment Date: Fall 2017
   Assessment Cycle: Every Three Years
   Course section(s)/other population: All
   Number students to be assessed: Random sample of 50% of the students with a minimum of one full section.
   How the assessment will be scored: Departmentally-developed rubric
   Standard of success to be used for this assessment: 80% or more of the students will score an average of 70% or higher.
   Who will score and analyze the data: External evaluators will score the data, WEB full-time faculty will analyze the data.

5. Recognize and apply database concepts.
   Assessment 1
   Assessment Tool: Homework assignments/projects
   Assessment Date: Fall 2017
   Assessment Cycle: Every Three Years
   Course section(s)/other population: All
   Number students to be assessed: Random sample of 50% of the students with a minimum of one full section.
   How the assessment will be scored: Departmentally-developed rubric
   Standard of success to be used for this assessment: 80% or more of the students will score an average of 70% or higher.
   Who will score and analyze the data: External evaluators will score the data, WEB full-time faculty will analyze the data.

6. Build a database web application.
   Assessment 1
   Assessment Tool: Homework assignments/projects
   Assessment Date: Fall 2017
   Assessment Cycle: Every Three Years
   Course section(s)/other population: All
   Number students to be assessed: Random sample of 50% of the students with a minimum of one full section.
   How the assessment will be scored: Departmentally-developed rubric
   Standard of success to be used for this assessment: 80% or more of the students will score an average of 70% or higher.
   Who will score and analyze the data: External evaluators will score the data, WEB full-time faculty will analyze the data.

Course Objectives

1. Write Python code and troubleshoot syntax issues.
   Matched Outcomes
2. Develop modular-based web pages and Web applications using Python incorporating environment variables from the server.
   Matched Outcomes
3. Understand relational database concepts.
   Matched Outcomes
4. Identify Python data types and define their own variables.

Matched Outcomes

5. Create loops using Python.
   Matched Outcomes
6. Implement conditional logic using Python.
   Matched Outcomes
7. Work with browser detection in order to serve different content based on browser.
   Matched Outcomes
8. Use Python to include text files with variables that will output content to the page.
   Matched Outcomes
9. Use Python to write or include text files with variables that will output content to the page.
   Matched Outcomes
10. Recognize the pros and cons of GET and POST, when each is appropriate and apply for passing data to Python scripts and between forms.
    Matched Outcomes
11. Set up sessions as well as cookies in order to maintain state and data.
    Matched Outcomes
12. Use Python for validation of form data, check of other user-provided data and error reporting.
    Matched Outcomes

New Resources for Course

N/A

Course Textbooks/Resources

Textbooks
Manuals
Periodicals
Software

Equipment/Facilities

Level I classroom

Reviewer	Action	Date
Faculty Preparer:		
Scott Shaper	*Faculty Preparer*	*Oct 17, 2013*
Department Chair/Area Director:		
Jason Withrow	*Recommend Approval*	*Dec 11, 2013*
Dean:		
Rosemary Wilson	*Recommend Approval*	*Dec 19, 2013*
Vice President for Instruction:		
Bill Abernethy	*Approve*	*Feb 17, 2014*