Washtenaw Community College Comprehensive Report

CPS 120 Introduction to Computer Science
Effective Term: Winter 2020

Course Cover

Division: Business and Computer Technologies
Department: Computer Instruction
Discipline: Computer Science
Course Number: 120
Org Number: 13420
Full Course Title: Introduction to Computer Science
Transcript Title: Intro to Computer Science
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:
Consultation with all departments affected by this course is required.
Pre-requisite, co-requisite, or enrollment restrictions
Outcomes/Assessment
Rationale: Adjusting prerequisites per department decision.
Proposed Start Semester: Spring/Summer 2019
Course Description: In this course, students are introduced to computer science. Students learn to write, enter, compile and execute simple computer programs. Topics include numbering systems, operating systems, database, programming, networking, Internet and algorithms. Students must have basic computer literacy in order to be successful in this course.

Course Credit Hours

Variable hours: No
Credits: 3
Lecture Hours: Instructor: 45 **Student:** 45
Lab: Instructor: 0 **Student:** 0
Clinical: Instructor: 0 **Student:** 0

Total Contact Hours: Instructor: 45 **Student:** 45
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 3

Requisites

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. Identify basic computer concepts.
   Assessment 1
   Assessment Tool: Departmental exam
   Assessment Date: Winter 2019
   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: Answer key
   Standard of success to be used for this assessment: 70% of the students will score 70% or higher
   Who will score and analyze the data: Course instructors

2. Demonstrate numbering conversion between different systems.
   Assessment 1
   Assessment Tool: Departmental exam
   Assessment Date: Winter 2019
   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: Answer key
   Standard of success to be used for this assessment: 70% of the students will score 70% or higher
   Who will score and analyze the data: Course instructors

3. Develop a logic algorithm for certain problems.
   Assessment 1
   Assessment Tool: Departmental exam
   Assessment Date: Winter 2019
   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: Answer key
   Standard of success to be used for this assessment: 70% of the students will score 70% or higher
   Who will score and analyze the data: Course instructors

4. Identify basic networking concepts.
   Assessment 1
   Assessment Tool: Departmental exam
   Assessment Date: Winter 2019
   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: Answer key

Standard of success to be used for this assessment: 70% of the students will score 70% or higher
Who will score and analyze the data: Course instructors

5. Demonstrate sound software engineering techniques in developing a working software program.
   Assessment 1
   Assessment Tool: Portfolio of software programs
   Assessment Date: Winter 2019
   Assessment Cycle: Every Three Years
   Course section(s)/other population: All sections
   Number students to be assessed: Random sample of 50% of all students with a minimum of one full section
   How the assessment will be scored: Rubric
   Standard of success to be used for this assessment: Students will earn a total rubric score of 5 or higher out of 8. Students will earn a minimum of 2 out of 4 on the "Program Execution Rubric" and a 2 out of 4 on the "Program Readability Rubric."
   Who will score and analyze the data: Departmental faculty

Course Objectives

1. Demonstrate proficiency in identifying computer concepts such as memory, hard disk and storage devices.
2. Demonstrate proficiency in identifying processes such as disk scheduling, fragmentation and formatting.
3. Convert Binary to Decimal.
4. Convert Decimal to Binary.
5. Convert Decimal to Hexadecimal.
6. Convert Hexadecimal to Decimal.
7. Add different numbering systems.
8. Demonstrate proficiency in using a flowchart or pseudocode to solve a given problem.
9. Demonstrate the use of the decision process.
10. Demonstrate the use of the repetition process.
11. Demonstrate the Object-Oriented process.
12. Identify different types of networking.
13. Identify different devices used to build a network.
14. Create a program that is logical, easy to understand and properly intended to solve a stated problem.
15. Create a program that compiles properly.
16. Create a program that executes properly to solve a stated problem.

New Resources for Course

Course Textbooks/Resources

Textbooks
Manuals
Periodicals
Software

Equipment/Facilities

Level III classroom
Computer workstations/lab

Reviewer	Action	Date
Faculty Preparer:		
Philip Geyer	*Faculty Preparer*	*Jan 08, 2019*
Department Chair/Area Director:		

Philip Geyer	*Recommend Approval*	*Jan 09, 2019*
Dean:		
Eva Samulski	*Recommend Approval*	*Jan 10, 2019*
Curriculum Committee Chair:		
Lisa Veasey	*Recommend Approval*	*May 22, 2019*
Assessment Committee Chair:		
Shawn Deron	*Recommend Approval*	*May 23, 2019*
Vice President for Instruction:		
Kimberly Hurns	*Approve*	*Jun 04, 2019*