Clackamas Community College

Online Course/Outline Submission System

☐ Show changes since last approval in red   Print   Edit   Delete   Back

Reject   Publish

Section #1 General Course Information

Department: Manufacturing

Submitter

First Name: Mike
Last Name: Mattson
Phone: 3322
Email: mattsonm

Course Prefix and Number: MFG - 209

 # Credits: 3

Contact hours

Lecture (# of hours): 33
Lec/lab (# of hours):
Lab (# of hours):
Total course hours: 33

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

Course Title: Programming & Automation for Manufacturing

Course Description:

A high-level computer literacy course for technologists. The focus of this course is on structured computer programming in the Visual Basic language and the application of programming industrial automation. Basic knowledge of the PC required.

Type of Course: Career Technical Preparatory

Is this class challengeable?

Yes

Can this course be repeated for credit in a degree?

No

Is general education certification being sought at this time?

No

Does this course map to any general education outcome(s)?

No

Is this course part of an AAS or related certificate of completion?

Yes

Name of degree(s) and/or certificate(s): Manufacturing Programs

Are there prerequisites to this course?

No

Are there corequisites to this course?

No

Are there any requirements or recommendations for students taken this course?

Yes

Recommendations: Completion of MFG-109

Requirements: None

Are there similar courses existing in other programs or disciplines at CCC?

No

Will this class use library resources?

No

Is there any other potential impact on another department?

No

Does this course belong on the Related Instruction list?

No

GRADING METHOD:

A-F or Pass/No Pass

Audit:Yes

When do you plan to offer this course?

✓ **Winter**

Is this course equivalent to another?

If yes, they must have the same description and outcomes.

No

Will this course appear in the college catalog?

Yes

Will this course appear in the schedule?

Yes

Student Learning Outcomes:

Upon successful completion of this course, students should be able to:

1. write simple application programs for the PC in the Visual Basic language,
2. understand the steps in the application development cycle,
3. design user-friendly interfaces for applications based upon Windows standards,
4. have a working knowledge of programming logic as related to all computer languages,
5. implement programming logic and elements such as variables, sub-routines, functions, decision structures and loops to solve computing problems;
6. create software applications for automation and data acquisition.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. Visual Basic.
a. GUI design.
b. Standard and Professional controls.
c. VB language intro.
d. Variables.
e. Data types and formats.
f. Decisions and loops.
g. Subroutines and Functions.
2. Automation.
a. Computer Interfacing and Data Acquisition.
b. Electromechanical Actuation.
c. Industrial Sensors.

Does the content of this class relate to job skills in any of the following areas:

1. Increased energy efficiency	**No**
2. Produce renewable energy	**No**
3. Prevent environmental degradation	**No**
4. Clean up natural environment	**No**
5. Supports green services	**No**

Percent of course:0%

First term to be offered:

Next available term after approval

: