

**WASHTENAW COMMUNITY COLLEGE
COURSE-SYLLABUS APPROVAL FORM (CSAF)**

APP 252

SECTION I. SUBMISSION INFORMATION

1. Course:
Discipline/No: APP 252 **Title:** DDC Controls **Start Term:** W03

Division Code: HAT Department Code: CIND Org #: 14725 Don't publish: in College Catalog
 in Time Schedule on Web Page

<p>2. Type of Approval:</p> <input checked="" type="checkbox"/> Full Approval <input type="checkbox"/> Conditional Approval <hr/> <input type="checkbox"/> This proposal previously received conditional approval for the term: _____	<p>3. Reason for Submission: This Course is being submitted for: (check all that apply)</p> <input type="checkbox"/> New Course Approval <input checked="" type="checkbox"/> Five-year Syllabus Review <input type="checkbox"/> No changes to course <input checked="" type="checkbox"/> Major Change(s) <input type="checkbox"/> Minor Change(s)* <input type="checkbox"/> Reactivation of Inactive Course <input type="checkbox"/> Inactivation
--	---

*If requesting a change to a course that has conditional approval, please submit a complete syllabus.

4. Change Information:

<p>Minor Changes</p> <input type="checkbox"/> Course Discipline/Number (was _____) <input type="checkbox"/> Course Title (was _____) <input type="checkbox"/> Course Description <input type="checkbox"/> Class Capacity (was: _____) <input type="checkbox"/> Pre or Co-requisites <input type="checkbox"/> Course Objectives (minor changes) <input type="checkbox"/> Distribution of Contact Hours (contact hours were: lect: _____ lab _____ clin _____ other _____) <input type="checkbox"/> Other _____	<p>Major Changes</p> <input checked="" type="checkbox"/> Credit hours (credits were: <u>04</u>) <input type="checkbox"/> Change in Grading Method <input type="checkbox"/> Total Contact Hours (total contact hours were: _____) <input type="checkbox"/> Approval for offering an Honors Section <input type="checkbox"/> Approval for offering Distance Learning Sections <input type="checkbox"/> General Education Distribution Course: Add <input type="checkbox"/> Remove <input type="checkbox"/> <input type="checkbox"/> Pre or Co-requisites (that affect other departments)
--	--

5. Ratification: Changes are being made in response to data from Assessment: yes no
Align credit hours with local 190 third party billing and payment requirements.

SECTION II. SIGNATURES

1. Department Review
Will any new resources be required? No, none anticipated Yes
You must consult all departments that may be affected by this course. List departments contacted below and attach relevant documents.

Does the department support approval of this course? yes no

Print: Scott Klapper Faculty/Preparer Signature: Scott Klapper Date: 10-15-02

Print: Scott Klapper Department Chair Signature: Scott Klapper Date: 10-15-02

2. Division Review
Is this a curricular priority for your division? yes no (Comment _____)
What is the estimated enrollment? _____

Recommendation Yes No [Signature] 10/16/02
Dean's Signature Date

3. Curriculum Committee Review
Recommendation Yes No [Signature] 3.20.03
Curriculum Committee Chair's Signature Date

4. Vice President for Instruction and Student Services Approval
Approval Yes No [Signature] 3/26/03
Executive Vice President's Signature Date

ACS Code _____ Entered in Banner 3/27 Entered in Access 3/27 Log File 3/27 fr
Approved for General Education Area/Group _____ Syllabus Date 200301

**WASHTENAW COMMUNITY COLLEGE
COURSE-SYLLABUS APPROVAL FORM (CSAF)**

APP 252

SECTION III. COURSE SYLLABUS

A. COURSE DETAILS

Discipline & No.: APP 252 Title: DDC Controls

1. Description:

This course will demonstrate DDC controls. This course will train students on different types of DDC control systems. This course will give students knowledge on basic electricity in the DDC systems. This course will teach students resistors in DDC systems. This course will train students on basic computer commands for DDC controls. This course will introduce students to fiber optic systems. This course will prepare an introduction into programming DDC systems and basic DDC troubleshooting.

2. Credit Hours: <u>03</u> If Variable credit, Give Range: _____ to _____ credits If repeatable for credit, how many times _____	3. Contact Hours per Semester: Lecture: <u>30</u> Lab: <u>30</u> Clinical: _____ Other: _____ Total Contact Hours: <u>60</u>	4. Class Capacity: <u>24</u>	5. Course Options: <input type="checkbox"/> Distance learning <input type="checkbox"/> Honors <input type="checkbox"/> P/NP Grading
---	--	--	---

6. Prerequisite(s) and/or "(“	Course	Min Grade	*Concurrent Enrollment	Test Name	Min. Score	**Level “)”	1	II	Other Prerequisites
<input type="checkbox"/>	APP 111	_____	<input type="checkbox"/>	_____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____
<input type="checkbox"/>	APP 112	_____	<input type="checkbox"/>	_____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____
<input type="checkbox"/>	APP 113	_____	<input type="checkbox"/>	_____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____
<input type="checkbox"/>	_____	_____	<input type="checkbox"/>	_____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____
<input type="checkbox"/>	_____	_____	<input type="checkbox"/>	_____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____
<input type="checkbox"/>	_____	_____	<input type="checkbox"/>	_____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____
<input type="checkbox"/>	_____	_____	<input type="checkbox"/>	_____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____
<input type="checkbox"/>	_____	_____	<input type="checkbox"/>	_____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____
<input type="checkbox"/>	_____	_____	<input type="checkbox"/>	_____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____

Consent Required

8. Course Purpose: <input checked="" type="checkbox"/> Program Requirement <input type="checkbox"/> General Education <input type="checkbox"/> Program Support <input type="checkbox"/> Basic Skills/Developmental <input type="checkbox"/> Transfer <input type="checkbox"/> Industry/Professional Dev <input type="checkbox"/> Enrichment	If a program requirement, specify the program(s) <u>Local 190 apprenticeship program</u> _____ _____	Please send syllabus for Transfer evaluation to: <input type="checkbox"/> EMU <input type="checkbox"/> UM _____ _____ _____	Accepted for transfer: <input type="checkbox"/> EMU <input type="checkbox"/> UM _____ _____ _____
---	--	---	---

9. Terms Course will be offered:							
Terms	Session Length (e.g. 15 weeks, 1 st 7½ weeks, etc.)	Day	Eve	Even years only	Odd years only		
<input checked="" type="checkbox"/> Fall	<u>15 weeks</u>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Winter	<u>15 weeks</u>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Spr/Summer	<u>15 weeks</u>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

B. MAJOR INSTRUCTIONAL UNITS

1. DDC Controls

**WASHTENAW COMMUNITY COLLEGE
COURSE-SYLLABUS APPROVAL FORM (CSAF)**

APP 252

C. INSTRUCTIONAL OBJECTIVES

Unit #1 DDC Controls

The student will:

1. Describe DDC controls
2. Describe different types of DDC control systems there are
3. Describe DC voltage systems
4. Describe 4-20 ma systems
5. Describe 0-10 ma systems
6. Describe binary inputs
7. Describe binary outputs
8. Describe analog inputs
9. Describe analog outputs
10. Describe basic electricity in DDC systems
11. Describe resistors in DDC systems
12. Describe basic computer operation
13. Describe basic computer commands for DDC controls
14. Describe introduction to fiber optic systems
15. Describe introduction into programming DDC systems
16. Describe basic DDC troubleshooting

**WASHTENAW COMMUNITY COLLEGE
COURSE-SYLLABUS APPROVAL FORM (CSAF)**

APP 252

D. INSTRUCTIONAL METHODS, EVALUATION CRITERIA, AND ASSESSMENT

1. Instructional Methods:

<input checked="" type="checkbox"/> Lecture/Discussion _____ <input type="checkbox"/> Clinical Instruction _____ <input checked="" type="checkbox"/> Laboratory Assignments _____ <input type="checkbox"/> Internet Assignments _____ <input type="checkbox"/> Computer Simulations _____ <input type="checkbox"/> On-Site Work Experience _____ <input type="checkbox"/> Team Assignments _____ <input type="checkbox"/> Demonstrations _____	<input type="checkbox"/> Performances _____ <input type="checkbox"/> Group Critiques _____ <input type="checkbox"/> Field Trips _____ <input type="checkbox"/> Telecourse _____ <input type="checkbox"/> ITV Course _____ <input type="checkbox"/> Self-Paced Instruction _____ <input type="checkbox"/> Other _____ <input type="checkbox"/> Other _____
---	--

2. Evaluation Criteria:

<input checked="" type="checkbox"/> Attendance _____ <input checked="" type="checkbox"/> Class Discussion _____ <input checked="" type="checkbox"/> Papers _____ <input type="checkbox"/> Portfolios _____ <input type="checkbox"/> Projects _____ <input type="checkbox"/> Reports _____ <input type="checkbox"/> Clinical Assignments _____ <input checked="" type="checkbox"/> Home Work _____	<input checked="" type="checkbox"/> Quizzes _____ <input checked="" type="checkbox"/> Tests _____ <input type="checkbox"/> Midterm _____ <input checked="" type="checkbox"/> Final Exam _____ <input type="checkbox"/> Presentations _____ <input type="checkbox"/> Individual Performance _____ <input type="checkbox"/> Group/Team Performance _____ <input type="checkbox"/> Other _____
--	--

3. Assessment of Student Achievement:

<input type="checkbox"/> Departmental Exam _____ <input type="checkbox"/> Follow-on Tracking _____ <input type="checkbox"/> Standardized Test _____ <input type="checkbox"/> Portfolio Assessment _____	<input type="checkbox"/> Pre-test/Post-test _____ <input type="checkbox"/> Simulations _____ <input type="checkbox"/> Comprehensive Project _____ <input type="checkbox"/> Other _____
--	---

F. EQUIPMENT, FACILITIES, TEXTS, MATERIALS, AND SUPPLIES

1. Special Equipment/Facilities :

<input checked="" type="checkbox"/> Lab equipment _____ <input checked="" type="checkbox"/> Computer Lab _____ <input checked="" type="checkbox"/> CD ROM's _____ <input checked="" type="checkbox"/> Data Projector/Screen _____ <input checked="" type="checkbox"/> VCR _____ <input checked="" type="checkbox"/> TV Monitor _____	<input type="checkbox"/> ITV Classroom _____ <input type="checkbox"/> Off-Campus Sites _____ <input type="checkbox"/> Testing Center _____ <input checked="" type="checkbox"/> Other Supplied by Local 190 _____ <input type="checkbox"/> Other _____ <input type="checkbox"/> Other _____
---	---

**WASHTENAW COMMUNITY COLLEGE
COURSE-SYLLABUS APPROVAL FORM (CSAF)**

APP 252

2. Texts:

Title: UA materials supplied by Local 190

Author: United Association Copyright Yr: _____

Publisher: _____ Est. Cost: _____

Title: _____

Author: _____ Copyright Yr: _____

Publisher: _____ Est. Cost: _____

Title: _____

Author: _____ Copyright Yr: _____

Publisher: _____ Est. Cost: _____

Title: _____

Author: _____ Copyright Yr: _____

Publisher: _____ Est. Cost: _____

Additional Texts:

3. Supplies and/or Uniforms students will have to Acquire: (e.g. calculators, uniforms, tools, etc.)

Descriptions

Cost Estimates

_____	_____
_____	_____
_____	_____

4. Reference Materials that will be used: (e.g. journals, books, manuals, maps, LRC reserves, etc.)

Title/Name

Location

_____	_____
_____	_____

5. Computer Software that will be used:

Title/Name

Location

_____	_____
_____	_____
_____	_____

6. Audio/Visual Materials that will be used: (e.g. films, video tapes, slides, audio tapes, CDs, etc.)

Title/Name

Location

_____	_____
_____	_____
_____	_____