COURSE-SYLLABUS APPROVAL FORM (CSAF)

SECTION I. SUBMISSION INFORMATION

1. Course:

Discipline/No:__APP 233__   Title:__Air Conditioning Systems__   **Start Term** W03

Division Code:__HAT__   Department Code:__CIND__   Org #:__14725__   Don't publish: ☒in College Catalog   ☒in Time Schedule   ☒on Web Page

2. Type of Approval:	**3. Reason for Submission:** This Course is being submitted for: (check all that apply)
☒ Full Approval ☐ Conditional Approval ------------------------------------- ☐ This proposal previously received conditional approval for the term:_____	☐ New Course Approval ☒ Five-year Syllabus Review ☐ No changes to course ☒ Major Change(s) ☐ Minor Change(s)* ☐ Reactivation of Inactive Course ☐ Inactivation *If requesting a change to a course that has conditional approval, please submit a complete syllabus.

4. Change Information:

Minor Changes	**Major Changes**
☐ Course Discipline/Number (was _____) ☐ Course Title (was _____) ☐ Course Description ☐ Class Capacity (was: ____) ☐ Pre or Co-requisites ☐ Course Objectives (minor changes) ☐ Distribution of Contact Hours (contact hours were: lect:_____ lab_____ clin_____other_____) ☐ Other _____	☒ Credit hours (credits were: _04_) ☐ Change in Grading Method ☐ Total Contact Hours (total contact hours were:_____) ☐ Approval for offering an Honors Section ☐ Approval for offering Distance Learning Sections ☐ General Education Distribution Course: Add☐ Remove☐ ☐ Pre or Co-requisites (that affect other departments)

5. Rationale   Changes are 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__   Signature _Scott Klapper_   Date:_____
       Faculty/Preparer

Print:__Scott Klapper__   Signature _Scott Klapper_   Date:_____
       Department Chair

2. Division Review

Is this a curricular priority for your division?   ☒ yes   ☐ no (Comment _____)
What is the estimated enrollment? _____

Recommendation ☒ Yes ☐ No   _Dean's Signature_   Date _7/16/02_

3. Curriculum Committee Review

Recommendation ☒ Yes ☐ No   _Ruth A. Hatcher_   Date _3.20.03_
       Curriculum Committee Chair's Signature

4. Vice President for Instruction and Student Services Approval

Approval ☒ Yes ☐ No   _Executive Vice President's Signature_   Date _3/26/03_

ACS Code _____   Entered in Banner__3/7__   Entered in Access__5/27__   Log File __3/27__

Approved for General Education Area/Group_____   Syllabus Date __200301__

WASHTENAW COMMUNITY COLLEGE   APP 233
COURSE-SYLLABUS APPROVAL FORM (CSAF)

SECTION III. COURSE SYLLABUS
A. COURSE DETAILS

Discipline & No.: APP 233   Title: Air Conditioning Systems

1. Description:

This course will enable students to gain the knowledge of different oils and refrigerants and learn the ability to troubleshoot systems. This course will enable students to gain the knowledge in working with compressors, condensers, different types, water cooles, air coolded, evaporators, metering devices, and a/c controls.

2. Credit Hours: 03	3. Contact Hours per Semester:	4. Class Capacity:	5. Course Options:
If Variable credit, Give Range: ___ to ___ credits	Lecture: 30 Lab: 30 Clinical: ___ Other: ___ Total Contact Hours: 60	24	☐ Distance learning ☐ Honors ☐ P/NP Grading
If repeatable for credit, how many times ___			

6. Prerequisite(s) and/or "(" Course: APP 111, APP 112, APP 113

7. Corequisites:

Consent Required ☐

8. Course Purpose:	If a program requirement, specify the program(s)	Please send syllabus for Transfer evaluation to:	Accepted for transfer:
☒ Program Requirement ☐ General Education ☐ Program Support ☐ Basic Skills/Developmental ☐ Transfer ☐ Industry/Professional Dev ☐ Enrichment	Local 190 apprenticehsip porgram	☐ EMU ☐ UM	☐ EMU ☐ UM

9. Terms Course will be offered:

Terms	Session Length	Day	Eve	Even years only	Odd years only
☒ Fall	15 weeks	☐	☒	☐	☐
☒ Winter	15 weeks	☐	☒	☐	☐
☒ Spr/Summer	15 weeks	☐	☒	☐	☐

B. MAJOR INSTRUCTIONAL UNITS

1. Understanding the components of air condtitioning systems

C. INSTRUCTIONAL OBJECTIVES

Unit #1   Understanding the compents of air conditioning systems
The student will:

1.   Describe the different oils and refrigerants

2.   Demonstrate the ability to troubleshoot systems

D. INSTRUCTIONAL METHODS, EVALUATION CRITERIA, AND ASSESSMENT
1. Instructional Methods:

☒ Lecture/Discussion	☐ Performances
☐ Clinical Instruction	☐ Group Critiques
☒ Laboratory Assignments	☐ Field Trips
☐ Internet Assignments	☐ Telecourse
☐ Computer Simulations	☐ ITV Course
☐ On-Site Work Experience	☐ Self-Paced Instruction
☐ Team Assignments	☐ Other
☐ Demonstrations	☐ Other

2. Evaluation Criteria:

☒ Attendance	☒ Quizzes
☒ Class Discussion	☒ Tests
☒ Papers	☐ Midterm
☐ Portfolios	☒ Final Exam
☐ Projects	☐ Presentations
☐ Reports	☐ Individual Performance
☐ Clinical Assignments	☐ Group/Team Performance
☒ Home Work	☐ Other

3. Assessment of Student Achievement:

☐ Departmental Exam	☐ Pre-test/Post-test
☐ Follow-on Tracking	☐ Simulations
☐ Standardized Test	☐ Comprehensive Project
☐ Portfolio Assessment	☐ Other

F. EQUIPMENT, FACILITIES, TEXTS, MATERIALS, AND SUPPLIES
1. Special Equipment/Facilities:

☒ Lab equipment	☐ ITV Classroom
☒ Computer Lab	☐ Off-Campus Sites
☒ CD ROM's	☐ Testing Center
☒ Data Projector/Screen	☒ Other Supplied by Local 190
☒ VCR	☐ Other
☒ TV Monitor	☐ Other

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**

_____   _____

_____   _____

_____   _____