

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

HVA 204

For help screens, select a field and press F1

SECTION I. SUBMISSION INFORMATION

1. Course: (Enter proposed discipline, number & title here.)
Discipline/No: HVA 204 **Title:** Central Heating Plants **Start Term** Fall 2003
 Banner allows only 29 characters and spaces, for the title. Longer titles will have to be abbreviated.

Division Code: HAT **Department Code:** WAFD **Org #:** 14750 Don't publish: in College Catalog
 in Time Schedule on Web Page

2. Type of Approval: (applies to both new courses and changes)
 Full Approval
 Conditional Approval
 This proposal previously received conditional approval for the term: _____

3. Reason for Submission: This Course is being submitted for: (check all that apply)
 New Course Approval (Skip 4 and go directly to 5.)
 Five-year Syllabus Review No changes to course (Submit complete syllabus)
 Major Change(s) (Submit complete syllabus)
 Minor Change(s)* (For fully approved courses, submit revised sections only.)
 Reactivation of Inactive Course
 Inactivation (Submit this page only.)
 *If requesting a change to a course that has conditional approval, please submit a complete syllabus.

4. Change Information: (Check all that apply. Make proposed changes in Section III, Course Syllabus.)

<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 (will be reviewed by Curriculum Committee.)</p> <input type="checkbox"/> Credit hours (credits were: _____) <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 (Attach Approval Form.) <input type="checkbox"/> Approval for offering Distance Learning Sections (Attach Distance Learning Approval Form) <input type="checkbox"/> General Education Distribution Course: Add <input type="checkbox"/> Remove <input type="checkbox"/> (Attach General Education Course Approval Form) <input type="checkbox"/> Pre or Co-requisites (that affect other departments)
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5. Rationale: (for new course or course change) Changes are being made in response to data from Assessment: yes no
 Required course for the HVAC-R Commercial Advanced Certificates.

SECTION II. SIGNATURES

1. Department Review (To be completed by department chair)
 Will any new resources be required? No, none anticipated Yes (If yes, attach list with projected costs)
 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 (if no, initial and return to preparer with rationale.)

Print: Thomas Achatz Faculty/Preparer Signature: Thomas Achatz Date: 4/22/2003

Print: William Figg Department Chair Signature: William Figg Date: 4-22-03

2. Division Review (To be completed by division dean; if recommendation is no, initial and return to department with rationale.)
 Is this a curricular priority for your division? yes no (Comment _____)
 What is the estimated enrollment? 16 students per semester

Recommendation Yes No [Signature] Date: 4/22/03
 Dean's/Administrator's Signature

3. Curriculum Committee Review (Attach additional comments if necessary and forward to Executive Vice President.)
 Recommendation Yes No _____
 Curriculum Committee Chair's Signature Date

4. Vice President for Instruction and Student Services Approval (Attach additional comments if necessary.)
 Approval Yes No [Signature] Date: 5/8/03
 Vice President's Signature

ACS Code _____ Entered in Banner 5/9 Entered in Access 5/9 Log File 5/9
 Approved for General Education Area/Group _____ Syllabus Date Processed

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HVA 204

SECTION III. COURSE SYLLABUS

A. COURSE DETAILS (Start with #1.)

For help screens press F1.

Discipline & No.: HVA 204 **Title:** Central Heating Plants

Course and title will automatically appear above upon saving or previewing

1. Description: (Please be brief. Explain acronyms if used.)

This course provides an introduction to large boiler system operation. Topics covered include: low and high pressure boilers; boiler heat exchangers; fuels; combustion; heat exchangers; pumps; large boiler control systems; water treatment; air handling equipment; maintenance; and troubleshooting.

2. Credit Hours: 3

If Variable credit, Give Range:
_____ to _____ credits

If repeatable for credit, how
many times _____

3. Contact Hours per Semester:

Lecture: 30
Lab: 30
Clinical: _____
Other: _____
Total Contact Hours: 60

4. Class Capacity:

16 30
(If nonstandard, attach
Class Capacity
Exception form.)

5. Course Options:

- Distance learning
(Attach DL Form)
 Honors (Attach
Honors Addendum.)
 P/NP Grading

6. Prerequisite(s)

and/or ("	Course	Min Grade	*Concurrent Enrollment	Test Name	Min. Score	**Level (")	I	II	Other Prerequisites
<input type="checkbox"/>			<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/>	<u>HVA 201</u>		<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>	<u>Advanced Certificate</u>
<input checked="" type="checkbox"/>	<u>HVA 202</u>		<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>	<u>Core Classes</u>
<input type="checkbox"/>			<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>			<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>	
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<input type="checkbox"/>			<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>	

Consent Required

7. Corequisites: (limit of 2)

* Can take prerequisite before or concurrently with this course.

**Level I is enforced in Banner; Level II is enforced by instructor on 1st day of class.

8. Course Purpose:

- Program Requirement
 General Education
 Program Support
 Basic Skills/Developmental
 Transfer
 Industry/Professional Dev
 Enrichment

If a program requirement, specify
the program(s)

HVAC-R Industrial
Advanced Certificate

Please send syllabus for
Transfer evaluation to:

- EMU
 UM
 Ferris State

Accepted for transfer:
(attach documentation)

- EMU
 UM

9. Terms Course will be offered:

- Terms**
 Fall
 Winter
 Spr/Summer

Session Length (e.g. 15 weeks, 1st 7½ weeks, etc.)

Day

-

Even

-

Even years only

-

Odd years only

-

B. MAJOR INSTRUCTIONAL UNITS

A major instructional unit is a grouping of topics that naturally relate to one another.

Add additional numbers as needed. (This section is unprotected so that you can cut and paste from other documents.)

- 1 Low pressure boilers
- 2 High pressure boilers
- 3 Boiler heat exchangers
- 4 Boiler fuels and combustion
- 5 Pumps
- 6 Large boiler control systems
- 7 Water treatment
- 8 Air handling equipment
- 9 Maintenance
- 10 Troubleshooting
- 11 Safety precautions