

WASHTENAW COMMUNITY COLLEGE
COURSE-SYLLABUS APPROVAL FORM (CSAF)

HVA 206

For help screens, select a field and press F1

SECTION I. SUBMISSION INFORMATION

1. Course: (Enter proposed discipline, number & title here.) Discipline/No: <u>HVA 206</u> Title: <u>Central Cooling Plants</u> Start Term <u>Fall 2003</u> Banner allows only 29 characters and spaces, for the title. Longer titles will have to be abbreviated.	
Division Code: <u>HAT</u> Department Code: <u>WAFD</u> Org #: <u>14750</u> Don't publish: <input type="checkbox"/> in College Catalog <input type="checkbox"/> in Time Schedule <input type="checkbox"/> on Web Page	
2. Type of Approval: (applies to both new courses and changes) <input type="checkbox"/> Full Approval <input checked="" type="checkbox"/> Conditional Approval ----- <input type="checkbox"/> This proposal previously received conditional approval for the term: _____	3. Reason for Submission: This Course is being submitted for: (check all that apply) <input checked="" type="checkbox"/> New Course Approval (Skip 4 and go directly to 5.) <input type="checkbox"/> Five-year Syllabus Review <input type="checkbox"/> No changes to course (Submit complete syllabus) <input type="checkbox"/> Major Change(s) (Submit complete syllabus) <input type="checkbox"/> Minor Change(s)* (For fully approved courses, submit revised sections only.) <input type="checkbox"/> Reactivation of Inactive Course <input type="checkbox"/> 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.) Minor Changes <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 _____ Major Changes (will be reviewed by Curriculum Committee.) <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)	
5. Rationale: (for new course or course change) Changes are made in response to data from Assessment: yes <input type="checkbox"/> no <input type="checkbox"/> Required course for the HVAC-R Industrial Advanced Certificates.	

SECTION II. SIGNATURES

1. Department Review (To be completed by department chair) Will any new resources be required? No, none anticipated <input checked="" type="checkbox"/> Yes <input type="checkbox"/> (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? <input type="checkbox"/> yes <input type="checkbox"/> no (if no, initial and return to preparer with rationale.) Print: <u>Thomas Achatz</u> Signature <u>Thomas Achatz</u> Date: <u>4/22/2003</u> Faculty/Preparer Print: <u>William Figg</u> Signature <u>William Figg</u> Date: <u>4/23/03</u> Department Chair	
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? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no (Comment _____) What is the estimated enrollment? <u>16 students per semester</u> Recommendation <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <u>[Signature]</u> Date: <u>4/23/03</u> Dean's/Administrator's Signature	
3. Curriculum Committee Review (Attach additional comments if necessary and forward to Executive Vice President.) Recommendation <input type="checkbox"/> Yes <input type="checkbox"/> No _____ Curriculum Committee Chair's Signature Date	
4. Vice President for Instruction and Student Services Approval (Attach additional comments if necessary.) Approval <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <u>[Signature]</u> Date: <u>5/8/03</u> Vice President's Signature	

ACS Code _____	Entered in Banner <u>[Signature]</u>	Entered in Access <u>5/9</u>	Log File _____
Approved for General Education Area/Group _____	Syllabus Date _____	Processed <u>[Signature]</u>	

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HVA 206

SECTION III. COURSE SYLLABUS

A. COURSE DETAILS (Start with #1.)

For help screens press F1.

Discipline & No.: HVA 206 **Title:** Central Cooling 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 scale cooling operations. Topics covered include: absorption systems including ammonia and lithium bromide; water chillers; cooling towers; air handling systems; pumps; control systems; maintenance; and troubleshooting.

2. Credit Hours: <u> 3 </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> 30 </u> (If nonstandard, attach Class Capacity Exception form.)	5. Course Options: <input type="checkbox"/> Distance learning (Attach DL Form) <input type="checkbox"/> Honors (Attach Honors Addendum.) <input type="checkbox"/> P/NP Grading
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6. Prerequisite(s) and/or "Course"	Min Grade	*Concurrent Enrollment	Test Name	Min. Score	**Level "Y"	**Level		Other Prerequisites
						I	II	
<input type="checkbox"/> _____	_____	<input type="checkbox"/>	_____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	Advanced Certificate
<input checked="" type="checkbox"/> <u>HVA 201</u>	_____	<input type="checkbox"/>	_____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	Core Classes
<input checked="" type="checkbox"/> <u>HVA 202</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"/> _____	_____	<input type="checkbox"/>	_____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/> _____	_____	<input type="checkbox"/>	_____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	Consent Required <input type="checkbox"/>
<input type="checkbox"/> _____	_____	<input type="checkbox"/>	_____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	7. Corequisites: (limit of 2)
<input type="checkbox"/> _____	_____	<input type="checkbox"/>	_____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____

* 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: <input checked="" type="checkbox"/> Program Requirement <input type="checkbox"/> General Education <input type="checkbox"/> Program Support <input type="checkbox"/> Basic Skills/Developmental <input checked="" type="checkbox"/> Transfer <input type="checkbox"/> Industry/Professional Dev <input type="checkbox"/> Enrichment	If a program requirement, specify the program(s) <u>HVAC-R Industrial</u> <u>Advanced Certificate</u>	Please send syllabus for Transfer evaluation to: <input checked="" type="checkbox"/> EMU <input type="checkbox"/> UM <input checked="" type="checkbox"/> Ferris State	Accepted for transfer: (attach documentation) <input type="checkbox"/> EMU <input type="checkbox"/> UM
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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	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/> Winter	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/> Spr/Summer	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

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 Ammonia absorption systems
- 2 Lithium bromide absorption systems
- 3 Water chillers
- 4 Cooling towers
- 5 Air handling systems
- 6 Pumps
- 7 Control systems
- 8 Maintenance
- 9 Troubleshooting
- 10 Safety precautions