WASHTENAW COMMUNITY COLLEGE
COURSE-SYLLABUS APPROVAL FORM (CSAF)

APP 112

For help screens, select a field and press F1

SECTION I. SUBMISSION INFORMATION

1. **Course:** (Enter proposed discipline, number & title here.)
Discipline/No: APP 112 **Title:** Care and Use of Tools **Start Term** W03
Banner allows only 29 characters and spaces, for the title. Longer titles will have to be abbreviated.

Division Code: HAT Department Code: CIND Org #: 14725 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.)

Minor 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

Major Changes (will be reviewed by Curriculum Committee.)
☒ Credit hours (credits were: 04)
☐ Change in Grading Method
☐ Total Contact Hours (total contact hours were: _____)
☐ Approval for offering an Honors Section (Attach Approval Form.)
☐ Approval for offering Distance Learning Sections (Attach Distance Learning Approval Form)
☐ General Education Distribution Course: Add ☐ Remove ☐ (Attach General Education Course Approval Form)
☐ Pre or Co-requisites (that affect other departments)

5. **Rationale**: (for new course or course change) 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** (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: 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** (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? _____
Recommendation ☒ Yes ☐ No _____ (Dean's Signature) Date 10/16/02

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 _____ (Executive Vice President's Signature) Date _____

ACS Code _____ **Entered in Banner** _____ **Entered in Access** _____ **Log File** _____

Approved for General Education Area/Group _____ **Syllabus Date** _____

WASHTENAW COMMUNITY COLLEGE
COURSE-SYLLABUS APPROVAL FORM (CSAF)

APP 112

SECTION III. COURSE SYLLABUS

For help screens press F1.

A. COURSE DETAILS (Start with #1.)

Discipline & No.: APP 112 **Title:** Care and Use of Tools

Course and title will automatically appear above upon saving or previewing

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

This course will enable students to properly handle power tools. This course will teach students the safe operation of power tools. This course will instruct students on the proper method of using different hand tools. This course will teach students the proper way to handle materials in our trade.

2. Credit Hours: 03

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: 24

(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	**Level II
		APP 111		☐				☐	☐
☐	☐			☐				☐	☐
☐	☐			☐				☐	☐
☐	☐			☐				☐	☐
☐	☐			☐				☐	☐
☐	☐			☐				☐	☐
☐	☐			☐				☐	☐
☐	☐			☐				☐	☐

Other Prerequisites

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)

Local 190 apprenticeship program

Please send syllabus for Transfer evaluation to:

- ☐ EMU
- ☐ UM

Accepted for transfer: (attach documentation)

- ☐ EMU
- ☐ UM

9. Terms Course will be offered:

Terms	Session Length (e.g. 15 weeks, 1st 7½ weeks, etc.)	Day	Eve	Even years only	Odd years only
☒ Fall	15 weeks	☐	☒	☐	☐
☒ Winter	15 weeks	☐	☒	☐	☐
☒ Spr/Summer	15 weeks	☐	☒	☐	☐

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. Safety and Safe work procedures
2. Layout and measuring of tools
3. Screwdriver, Pliers and nut drivers
4. Wrenches
5. Vises and Clamps
6. Hammers and saws

APP 112

WASHTENAW COMMUNITY COLLEGE
COURSE/SYLLABUS APPROVAL FORM (CSAF)

For help screens, select a field and press F1

SECTION I. COURSE SUBMISSION INFORMATION

1. **Course:** (For an existing course enter the existing discipline, number, and title. For a new course enter the proposed number & title.)

Discipline/No: APP 112 **Title:** Care And Use Of Tools

Division Code: TEC | Department Code: TEC | Requested Start Term: Fall 97

2. **Type of Approval:** (applies to both new courses and changes)
- ☒ Full Approval
- ☐ Conditional Approval
- ☐ This proposal has received conditional approval previously.

Term Offered: _____

3. **Reason for Submission:** This Course is being submitted for: (check all that apply)
- ☐ New Course Approval (Skip the rest of Section I and go directly to Section II.)
- ☐ Five-year Syllabus Review ☐ No changes to course
- ☐ Major Change(s)
- ☒ Minor Change(s) (If not due for review, submit sections I, II, and revised parts of Section III.)
- ☐ Reactivation of Inactive Course
- ☐ Termination (Submit Sections I and II only.)

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

Minor Changes
- ☐ Course Title
- ☒ Course Description
- ☐ Course Discipline/Number
- ☐ Capacity (capacity was: _____)
- ☐ Pre or Corequisites within Department
- ☐ Course Objectives (minor changes)
- ☐ Distribution of Contact Hours (contact hours were: lect: _____ lab _____ clin _____ exp _____)
- ☐ Distance Learning - minor (Attach Preliminary Approval Form for Distance Learning & the Section Handout.)
- ☐ Other _____

Major Changes (Major changes will be reviewed by Curriculum Committee.)
- ☐ Credit hours (credits were: _____)
- ☐ Core Element Approval ☐ first time ☐ add additional elements
- ☐ Core Element Removal (Elements to be removed _____)
- ☐ Grading
- ☐ Pre or Corequisites outside Department
- ☐ Course Objectives (major changes)
- ☐ Total Contact Hours (total contact hours were: _____)
- ☐ Honors (Complete Part G of Section III, Honors Addendum.)
- ☐ Distance Learning - major (Attach Preliminary Approval Form for Distance Learning & the Student Handout for the Distance Section.)
- ☐ Other _____

5. **Rationale for changes:**
The cahange is being made to meet the needs of our Plumber & Pipefitters Local 190 apprentice program.

SECTION II. COURSE REVIEW INFORMATION AND SIGNATURES

1. **Department Review** (To be completed by department chair; if recommendation is no, initial and return to preparer with rationale attached.)

Will additional resources be required? ☐ yes ☒ no (If yes, explain _____)
Have departments which may be affected by this course been consulted? ☐ yes ☒ no (Explain none affected)
Does the department support approval of this course? ☒ yes ☐ no

Print: Patricia Stegall/ Scott Klappper (Faculty/Preparer) Signature _____ Date: 7-31-97

Print: Les Pierce (Department Chair) Signature _____ Date: 8-1-97

2. **Division Review** (To be completed by division dean; if recommendation is no, initial and return with rationale attached.)

If additional resources are needed, have they been secured? ☐ yes ☐ no ☒ No new resources are needed.
Is this a curricular priority for your division? ☒ yes ☐ no (Comment _____)
What is your estimate of projected enrollment? 15

Recommendation ☒ Yes ☐ No _____ (Division Dean's Signature) Date 8/4/97

3. **Curriculum Committee Review** (Attach additional comments if necessary.)

Recommendation ☐ Yes ☐ No _____ (Curriculum Committee Chair's Signature) Date _____

4. **Vice President for Instruction and Student Services Approval** (Attach additional comments if necessary.)

Recommendation ☒ Yes ☐ No _____ (Vice President's Signature) Date _____

Data File 11/13/97 ACS Code _____ Catalog File Date 12/1/97 CIF File Date _____

Core Elements Approved Previous New Syllabus Date 8/4/97

WASHTENAW COMMUNITY COLLEGE
COURSE/SYLLABUS APPROVAL FORM (CAF)

SECTION III. COURSE SYLLABUS
A. COURSE DETAILS

For help screens, select a field and press F1.

1. **Course Discipline & No.:** APP 112 2.
   Course Title: Safety & Health

3. **Course Description:** This course will enable students to properly handle power tools, and safe operation of power tools. This course will teach students the proper methods of using different hand tools, and willl teach students the proper way to handle materials in the trade.

4. **Credit Hours:** 04
   If Variable credit, Give Range:
   _____ to _____
   If repeatable for credit, how many times? _____

5. **Class Capacity:** 24
   (If nonstandard, attach Class Capacity Exception form.)

6. **Course Options:**
   - ☐ Distance learning (Attach preliminary distance approval form and Section Handout.)
   - ☐ Honors (Complete Part G.)
   - ☐ P/NP Grading (Attach rationale.)

7. **Contact Hours per Semester in:**
   - Lecture: 60
   - Lab: _____
   - Clinical: _____
   - Experiential: _____
   - **Total Contact Hrs:** 60

8. **Prerequisite(s):**
   APP 111

9. **Corequisite(s):** (limit to 2)
   NONE

10. **a. Course Purpose:**
    - ☒ Program Specialty
    - ☐ Program Support
    - ☐ Nonprogram Specialty
    - ☐ Transfer
    - ☐ Enrichment
    - ☐ Basic Skills

b. Is this course a requirement for a program?
- ☒ Yes (specify the program(s) below)
  Local 190 apprentice program
- ☐ No

c. Indicate schools to which you want Curriculum Services to send syllabus:
(If transfer is approved, attach documentation.)
- ☐ EMU
- ☐ UofM
- ☐ Other _____

B. MAJOR INSTRUCTIONAL UNITS
A major instructional unit is a grouping of topics which naturally relate to one another. List in order the major instructional units. Add additional numbers as needed.

1. Safety and Safe Work Procedures
2. Layout and measuring tools
3. Screwdrivers, Pliers and Nut Drivers
4. Wrenches
5. Vises & Clamps
6. Hammers & Saws
7. Files
8. Punches and Chisels
9. Pipe wrenches & Vises
10. Pipe Cutter & Reamers
11. Pipe Treading
12. Tube Fabrication
13. Special Tools

C. CORE ELEMENT INFORMATION

1. Core Element Submission Information: (Please check all that apply)

☐ This course has been previously approved for core elements. List approved core elements: _____

☐ Please review this course for core elements marked in part 2 below.

☒ This course does not meet any core elements. Explain _____ (Go to SECTION D)

2. Proposed Core Element(s): (Mark the boxes of only the elements to be reviewed at this time. For detailed information on the criteria for determining whether a course meets a core element, refer to the Core Element Annotations in the Curriculum Manual.)

☐ 1. To read and listen in a critical and perceptive way; to speak in an organized, clear, and effective manner.

☐ 2. To use information sources and information gathering techniques; to cite sources when producing written communications.

☐ 3. To develop, organize, and express thoughts in writing using standard English.

☐ 4. To apply basic mathematics through the level of elementary algebra.

☐ 5. To represent and solve problems using mathematical techniques.

☐ 6. To interpret elementary descriptive statistics.

☐ 7. To comprehend and use concepts and ideas.

☐ 8 To develop, express, test, and evaluate ideas.

☐ 9. To analyze problems, develop solutions, and evaluate results in a clear, logical, and consistent manner.

☐ 10. To distinguish between fact and opinion; to recognize biases and fallacies in reasoning.

☐ 11. To use computer systems to achieve professional, educational, and personal objectives.

☐ 12. To apply the protocols of computer use and respect the legal and other rights of individuals or organizations.

☐ 13. To be aware of the artistic experience in personal and cultural enrichment, growth, and communication.

☐ 14. To be aware of the nature and variety of the human experience through the methods and applications of the humanities

☐ 15. To understand the basic principles of scientific inquiry.

☐ 16. To have a knowledge of basic human biological principles, including those related to wellness.

☐ 17. To understand the basic principles of the natural sciences, and their relationship to the environment.

☐ 18. To understand the basic principles and applications of technology.

☐ 19. To understand the principle of integrating technological elements into systems.

☐ 20. To understand the relationship of technology to individuals, society, and the environment.

☐ 21. To understand the methods and applications of the social sciences in exploring the dynamics of human behavior.

☐ 22. To understand those principles and values, including individual rights and civic responsibilities, which maintain and enhance democracy and freedom in a pluralistic society.

☐ 23. To have a working knowledge of the history, structure, and function of American social, political, and economic institutions.

☐ 24. To be aware of the contemporary global community, especially its geographical, cultural, economic, and historical dimensions.

DIRECTIONS: Each core element marked above must be included in the appropriate core element boxes next to the course objectives in SECTION D which directly support that core element.

3. Courses That Partially Satisfy A Core Element In Combination With Other Courses:

☐ If this course is part of a combination of courses that together meet a core element, mark this box. The courses must all be submitted and reviewed together for core element approval.

Other course(s) required _____

Dean's Comments:

Curriculum Committee's Comments:

Vice President's Comments:

D. INSTRUCTIONAL OBJECTIVES AND CORE ELEMENTS SUPPORTED

DIRECTIONS: Use student outcome based language. (Example: The student will develop and support a thesis in an essay.) If the objective is being used to directly support a core element, write the core element number in the box to the right. If needed, additional information on how the core element is to be met and/or assessed for accomplishment can be included under the objective. If desired you may add a section of "overall course objectives" which are not associated with a specific unit. This may be particularly helpful for addressing core elements.

Unit Objectives — **Core Elements**

Unit #1 Safety and Safe Work Procedures

1 The student will describe the proper attire for the job & conditions. ☐

2 The student will describe power tools in good conditions, good cords, G.F.C.I's. ☐

3 The student will describe the guards in place on power tools. ☐

4 The student will demonstrate power actuated tools also fuel powered tools.

5 The student will demonstrate hand tools - good condition, not worn, cracked mushroomed, etc.

Unit #2 Layout and Measuring Tools

1 The student will explain systems and units of measurement. ☐

2 The student will describe different types of rules and scales. ☐

3 The student will demonstrate the use of calipers & gages ☐

4 The student will demonstrate the use of squares, levels and plumb bobs.

Unit #3 Screwdrivers, Pliers and Nut Drivers

1 The student will explain the purpose of these tools.

2 The student will explain the procedure of use of these tools.

3 The student will describe all different types of screw drivers and nut drivers.

4 The student will describe power, multi head and ratchet types.

5 The student will describe the use of pliers - many types slip joint, adjustable type, side cutters, standard nose cutting pliers, diagonal cutting pliers, vise grips.

6 The student will describe many different types of screw and drivers needed to install them

Unit #4 Wrenches

1 The student will demonstrate the use of hand wrenches.

2 The student will explain open end, box end, ratcheting box end.

3 The student will explain split box, offset wrenches, adjustable wrenches.

4 The student will explain striking face wrench and monkey wrench.

5 The student will explain socket wrench set and all different handles and drivers, extensions, adapters.

6 The student will explain torque wrenches and spanner wrenches.

Unit #5 Vises and Clamps

1 The student will describe a machinists vise and utility vise.

2 The student will describe c- clamps.

3 The student will describe vise grips.

Unit #6 Hammers and Saws

1 The student will describe a ball pein, sledge hammer, engineers hammer, black smith hammer, hand drilling hammer.

2 The student will explain a mallet - wood, rubber, rawhide, plastic

3 The student will explain a claw hammer.

4 The student will explain a hack saw, hand wood saw, flexible hack saw, and jab saw.

5 The student will explain a band saw, circular saw, and jig saw.

6 The student will explain abrasive cut-off saw, saber saw, reciprocating saws, and gas powered saws.

Unit #7 Files

1 The student will explain file terminology

2 The student will explain cuts - single, double, rasp, curved.

3 The student will describe types- rectangular, square, triangular, round, half round.

4 The student will explain the use of files safely and cleaning.

Unit #8 Punches and Chisels

1 The student will explain the proper use of punches and chisels

2 The student will explain the different types - starting , drift, aligning, pin.

3 The student will explain the center punch and prick punch.

4 The student will explain flat cold chisel, cape chisel, diamond-point chisel

5 The student will explain half - round and round nose-chisel

6 The student will explain wood chisels

Unit #9 Pipe Wrenches and Vises

1 The student will demonstrate the proper use of pipe wrenches.

2 The student will describe the different types- straight end, offset and chain wrenches.

3 The student will describe strap wrenches, rap wrenches, and hex wrenches

4 The student will describe spud wrenches and international wrenches.

5 The student will describe basin wrenches.

6 The student will describe different types of vises - yoke pipe vise, chain vise, open side pipe vise

7 The student will describe pipe line up clamps.

Unit #10 Pipe Cutter and Reamers

1 The student will demonstrate the proper use of cutters and reamers.

2 The student will explain one wheel, two wheel, and three wheel cutters.

3 The student will explain cast iron pipe cutter types, ratchet type.

4 The student will explain geared cutters, single stroke type and hydraulic type.

5 The student will explain many types of copper cutters.

6 The student will explain power cutters.

7 The student will explain spiral reamer, straight reamer, ratchet type

Unit #11 Pipe Threading

1 The student will describe hand threaders and power threaders.

2 The student will describe tri-head dies, ratchet dies.

3 The student will describe quick opening dies.

4 The student will describe jam proof geared threads.

5 The student will describe the proper oil.

6 The student will describe cleaning and setting the dies

Unit #12 Tube fabrication

1 The student will explain tube joints.

2 The student will explain sizes, hardness and temper, measuring, cutting.

3 The student will explain tube bending.

4 The student will explain tube flaring.

Unit #13 Special Tools

1 The student will explain power roll groovers.

2 The student will explain beveling tools.

3 The student will explain T-drill

4 The student will explain cutting glass.

5 The student will explain cast iron pipe pullers.

6 The student will explain flange jacks.

7 The student will explain drilling and boring tools.

8 The student will explain pipe and sewer cleaning.

E. INSTRUCTIONAL METHODS AND EVALUATION

1. Instructional Methods: (Check the appropriate boxes and describe as needed.)

- ☒ Lecture/Discussion
- ☒ Seminar
- ☐ Laboratory Assignments
- ☐ Clinical Instruction
- ☐ Team Assignments
- ☐ On-Site Work Experience
- ☐ Self-Paced Learning
- ☐ Telecourse
- ☐ Interactive TV
- ☐ Internet Instruction
- ☐ Video Seminar
- ☐ Computer Simulations
- ☐ Field Trips
- ☐
- ☐ Other

2. Evaluation Criteria:

- ☒ Attendance _____
- ☒ Class Discussion _____
- ☒ Papers _____
- ☐ Portfolio _____
- ☐ Projects _____
- ☐ Reports _____
- ☐ Clinical/Work _____
- ☐ Performances _____
- ☒ Quizzes _____
- ☒ Tests _____
- ☐ Midterm _____
- ☒ Final Exam _____
- ☒ Home Work _____
- ☐ Presentations _____
- ☐ Other (Auditions, etc.) _____

3. Attendance Requirements: (For Certification or nonevaluative purposes.)

_____

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

1. Special Equipment/Facilities : (Check the appropriate boxes and describe as needed.)

- ☐ Lab equipment _____
- ☐ LRC Reserves _____
- ☐ Computers _____
- ☐ CD ROM _____
- ☐ Field Trips _____
- ☒ Other Supplied by Local 190
- ☐ Testing Center _____
- ☐ Student Competitions _____
- ☐ Off Campus Sites _____
- ☐ Student Tutors _____
- ☐ Distance Learning Classroom _____

2. Primary Texts: (Please indicate if no text is required.)

Title: UA Material

Author: Supplied by Local 190 Copyright Yr: _____

Publisher: _____ Est. Cost: _____

Title: _____

Author: _____ Copyright Yr: _____

Publisher: _____ Est. Cost: _____

3. Supplemental Texts or Course Packs:

Title: _____

Author: All materials supplied by Local 190 Copyright Yr: _____

Publisher: _____ Est. Cost: _____

Title: _____

Author: _____ Copyright Yr: _____

Publisher: _____ Est. Cost: _____

4. Supplies and/or Uniforms Student will have to Own or Acquire for Course:
(e.g. calculators, uniforms, tools, and software, etc., excluding pen, pencil, paper, or textbooks.)

Descriptions	Cost Estimates
N/A	

5. Reference Materials Students will be Referred to Use:
(e.g. journals, books, manuals, maps, LRC reserves, etc.)

N/A

6. Audio/Visual and Computer Materials to be Used:
(e.g. films, video tapes, slides, audio tapes, software, CDs, etc.)

Title	Source
Supplied by Local 190	