WASHTENAW COMMUNITY COLLEGE

MASTER SYLLABUS

Course Discipline Code & No: EWA190 **Title:** Transformers and Electrical Safety **Effective Term** Fall 2009

Division Code: VCT **Department Code:** UASD **Org #:** 28200

Don't publish: ☐ College Catalog ☒ Time Schedule ☒ Web Page

Reason for Submission. Check all that apply.

- ☒ New course approval
- ☐ Three-year syllabus review/Assessment report
- ☐ Course change
- ☐ Reactivation of inactive course
- ☐ Inactivation (Submit this page only.)

Change information: Note all changes that are being made. Form applies only to changes noted.

- ☐ Consultation with all departments affected by this course is required.
- ☐ Course discipline code & number (was _____)*
  *Must submit inactivation form for previous course.
- ☐ Course title (was _____)
- ☐ Course description
- ☐ Course objectives (minor changes)
- ☐ Credit hours (credits were: _____)
- ☐ Total Contact Hours (total contact hours were: _____)
- ☐ Distribution of contact hours (contact hours were: lecture: _____ lab _____ clinical _____ other _____)
- ☐ Pre-requisite, co-requisite, or enrollment restrictions
- ☐ Change in Grading Method
- ☐ Outcomes/Assessment
- ☐ Objectives/Evaluation
- ☐ Other _____

Rationale for course or course change. Attach course assessment report for existing courses that are being changed.

Approvals Department and divisional signatures indicate that all departments affected by the course have been consulted.

Department Review by Chairperson ☐ New resources needed ☐ All relevant departments consulted

Print: Dan Welch (Faculty/Preparer) Signature: D. Welch Date: 2/2/09

Print: _____ (Department Chair) Signature _____ Date: _____

Division Review by Dean

☐ Request for conditional approval

Recommendation ☐ Yes ☐ No D. Welch (Dean's/Administrator's Signature) 2/2/09 (Date)

Curriculum Committee Review

Recommendation _____

☐ Tabled ☒ Yes ☐ No Lisa Vuasey (Curriculum Committee Chair's Signature) 3/18/09 (Date)

Vice President for Instruction Approval

Roger M. Rolley. (Vice President's Signature) 3/19/09 (Date)

Approval ☒ Yes ☐ No ☐ Conditional

Do not write in shaded area.

Log File 2/17/09 Ecopy ☐ Banner 3/23 C&A Database 3/23 C&A Log File 3/23 Basic skills ☐ Contact fee ☐

Please return completed form to the Office of Curriculum & Assessment and email an electronic copy to sjohn@wccnet.edu for posting on the website.

***Complete ALL sections which apply to the course, even if changes are not being made.**

Course:	**Course title:**
EWA190	Transformers and Electrical Safety

Credit hours: 2

If variable credit, give range:

_____ to _____ credits

Contact hours per semester:

	Student	Instructor
Lecture:	30	30
Lab:		
Clinical:		
Practicum:		
Other:		
Totals:	30	30

Are lectures, labs, or clinicals offered as separate sections?

☐ Yes - lectures, labs, or clinicals are offered in separate sections

☐ No - lectures, labs, or clinicals are offered in the same section

Grading options:

☐ P/NP (limited to clinical & practical)

☐ S/U (for courses numbered below 100)

☒ Letter grades

Prerequisites. Select one:

☒ College-level Reading & Writing

☐ Reduced Reading/Writing Scores
(Add information at Level I prerequisite)

☐ No Basic Skills Prerequisite
(College-level Reading and Writing is not required.)

In addition to Basic Skills in Reading/Writing:

Level I (enforced in Banner)

	Course	Grade	Test	Min. Score	Concurrent Enrollment (Can be taken together)	Corequisites (Must be enrolled in this class also during the same semester)
					☐	
☐ and ☐ or					☐	
☐ and ☐ or					☐	
☐ and ☐ or					☐	

Level II (enforced by instructor on first day of class)

	Course	Grade	Test	Min. Score
☐ and ☐ or				
☐ and ☐ or				

Enrollment restrictions (In addition to prerequisites, if applicable.)

☐ and ☐ or Consent required

☐ and ☒ or Admission to program required

Program: IBEW 252 Apprenticeship

☐ and ☐ or Other (please specify):

Please send syllabus for transfer evaluation to:

Conditionally approved courses are not sent for evaluation.

Insert course number and title you wish the course to transfer as.

☐ E.M.U. as _____

☐ U of M as _____

☐ _____ as _____

☐ _____ as _____

☐ _____ as _____

☐ _____ as _____

Course	Course title
EWA190	Transformers and Electrical Safety

Course description State the purpose and content of the course. Please limit to 500 characters.	The student will learn about OSHA requirements on construction work sites and the proper selection of the proper personal protective equipment and clothing. Electrical safety culture will be discussed and related to transformers which are the most common source of electrical energy in any building. Arc fault current calculations will be presented as part of NFPA 70E requirements for determining safe approach distances for energized equipment. This course is taught at the IBEW local training center and is only open to apprentices accepted into a program.	
Course outcomes List skills and knowledge students will have after taking the course. **Assessment method** Indicate how student achievement in each outcome will be assessed to determine student achievement for purposes of course improvement.	**Outcomes** (applicable in all sections) After successful completion of this course, the student will be able to: 1. Install and properly ground transformers 2. Determine transformer system configuration from voltage measurements 3. Explain lock-out / tag-out safety procedures 4. Identify what personal protective equipment should be worn when working on transformers	**Assessment** Methods for determining course effectiveness This course is assessed externally by the local's Joint Apprenticeship Training Committee (JATC), consisting of NECA representatives (industry) and IBEW members. The local receives feedback on needed technical updates and apprentice skill performance.
Course Objectives Indicate the objectives that support the course outcomes given above. **Course Evaluations** Indicate how instructors will determine the degree to which each objective is met for each student.	**Objectives** (applicable in all sections) Objectives and methods of evaluation follow the curriculum set out by the National Joint Apprentice Training Committee (NJATC).	**Evaluation** Methods for determining level of student performance of objectives

List all new resources needed for course, including library materials.
All resources for the pro gram are in place at the Local 252 Training Center.

Student Materials:

List examples of types		Estimated costs
Texts Supplemental reading Supplies Uniforms Equipment Tools Software	All books and supplies provided through the IBEW Local 252 Training Center.	$ 0

Equipment/Facilities: Check all that apply. (All classrooms have overhead projectors and permanent screens.)

Check level only if the specified equipment is needed for all sections of a course.

- ☐ Level I classroom
  Permanent screen & overhead projector
- ☐ Level II classroom
  Level I equipment plus TV/VCR
- ☐ Level III classroom
  Level II equipment plus data projector, computer, faculty workstation

- ☐ Off-Campus Sites
- ☐ Testing Center
- ☐ Computer workstations/lab
- ☐ ITV
- ☐ TV/VCR
- ☐ Data projector/computer
- ☒ Other Local 252 Training Center

Assessment plan:

Learning outcomes to be assessed (list from Page 3)	Assessment tool	When assessment will take place (semester & year)	Course section(s)/other population	Number students to be assessed
1. Install and properly ground transformers 2. Determine transformer system 3. configuration from voltage measurements 4. Explain lock-out / tag-out safety procedures 5. Identify what personal protective equipment should be worn when working on transformers	Contractors (employer) provide paper feedback forms for apprentice skill performance reviews. JATC contractor members provide specifications detailing technical updates.	Fall 2011 and every three years thereafter.	All	All

Scoring and analysis of assessment:

1. Indicate how the above assessment(s) will be scored and evaluated (e.g. departmentally developed rubric, external evaluation, other). Attach the rubric/scoring guide.

   Apprentice feedback forms filled out by the employing contractor.

2. Indicate the standard of success to be used for this assessment.

   The standard of success is set by the local JATC.

3. Indicate who will score and analyze the data (data must be blind-scored).

   The data is analyzed by the JATC as a committee.

4. Explain the process for using assessment data to improve the course.

   Results are initially shared with the training coordinator for the local. The training coordinator then works with appropriate instructor staff to make needed changes.