Course Material Submission Form
OAN Match Definition Form

Today's Date:	March 12, 2007

Use this table to specify institutional data	
College/University:	Stark State College of Technology
Name and title of individual submitting on behalf of the college/university	
Name:	Vern Sproat
Title:	Assistant Professor of Engineering Technology
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Indicate the reason for this submission:

☐ New Course Match
☒ Revised Materials - Faculty review panel requested clarification
☒ Revised Materials - Institution submitting additional information
☐ Revised Materials - Course content revised by institution, including situations of both content and credit hour change
☐ Revised Materials – Other

Describe specific revisions being made for "Revised Materials" submissions:
Description of Topics have been add to the course calendar to describe more in detail the material covered in the course.

Institutional Notes to Faculty Panel (the institution is encouraged to add any additional clarifications for this submission):

Additional information is being provided as requested by the Faculty review panel comments "Pending: Topic #7, Analysis of basic filter circuits does not appear to be documented. "Network analysis" is understood to satisfy topic #8, AC network theorems such as superposition, Thevenin's and Norton's theorems. **"**

Table 1 – Use this table to describe the course match for which materials are being submitted for the first time or revised.

Proposed effective year and term of match (Final effective date will depend on actual approval of match by faculty panel. Effective Year and Term is the first term in which students taking the course will receive matching credit.)

Semester institutions complete this row:

2005 Academic Year ☐ Summer ☐ Autumn ☒ Spring

Quarter institutions complete this row:

20 Academic Year	☐ Summer ☐ Autumn ☐ Winter ☐ Spring
Ohio Articulation Number (OAN) (Use a separate form for each OAN.):	**OET003**
Number of courses in the match:	1 (up to 10)
Current status of match:	☐ First time submission ☐ Approved ☐ Submitted ☐ Disapproved ☐ Error ☒ Resubmitted ☒ Pending ☐ Error with enrollment ☐ Not submitted

Course or Courses being matched to or currently matched to the OAN listed above. (Course Numbers must be exactly what will appear on a student's transcript.):	**Course Number**
1.	EET122
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	

Table 2 - Use this table to submit course materials for the first time or to revise previously submitted course materials. You must submit each course in a separate form, repeating the match definition information in Table 1 above for each form submitted.

Course Number. (Course Numbers must be exactly what will appear on a student's transcript.):	EET122	**Course Title:**	AC Circuit Analysis

Hours (be sure that the hours for this course matches the hours in the OAN.)

☒ **Semester Hours** ☐ **Quarter Hours**

Total Credit Hours	4	**Lecture Hours**	3	**Laboratory Hours (if applicable)**	2

Course Placement in Major:
☒ Major Requirement
☐ Major Elective
☐ Other

Pre-Requisite Course work (if applicable) (Be sure this is consistent with the OAN definition): EET120 DC Circuit Analysis

Catalog/Course Description:

EET122
AC CIRCUIT ANALYSIS
4 Credit Hours
Alternating current (AC) circuit analysis and instrumentation. Topics include: phasor analysis, network theorems, power, resonance, pulse analysis, transformers and instrumentation

Texts/Outside Readings/Ancillary Materials (Be sure that the text meets performance expectations)**:**

Introductory Circuit Analysis, Robert Boylestad, Prentice Hall Publishing Co. and Lab Manual

Course Objectives and/or Plan of Work:

(Provide a clear indication of how the course objectives align with the matched OAN's learning outcomes. This will facilitate the faculty panel course review process.)

TECHNICAL OBJECTIVES:

Upon completion of this course, the student should have a basic understanding of AC circuits and be able to determine impedance, admittance, voltage, current, power, power factors, vector diagrams and wave forms through RLC circuits.

CRITICAL THINKING/COMPUTATIONAL SKILLS:

Technical skills are demonstrated by the student's ability to test and measure various types of circuitry by using various types of equipment provided in the lab.

COMPUTER APPLICATION SKILLS:

The students are instructed to use Multisims software to draw schematic diagrams, select the various types of circuitry and perform testing and measurement.

COMMUNICATION/INTERPERSONAL SKILLS:

Students are instructed to work in groups in the lab, interacting with each other by solving problems, writing reports, completing homework assignments and preparing for exams.

AC Circuit Analysis (EET122)

Assignment Calendar With OET003 Tag numbers added in left column

Week	Topic	Reading Assignment	Lab	OET003 Topic #
1	Sine Waves	13.1 - 13.10 14.1 - 14.7	1	1
2	Phasors & Complex Numbers	14.8 - 14.13 15.1 - 15.14	2	2
3	Phasors & Complex Numbers Series/Parallel Circuits	16.1 – 16.5	3	2, 4, 5
4	Series/Parallel Circuits Frequency Response RL, RC & RLC under Steady-State AC conditions	17.4 - 17.4, 17.6 - 17.8	4	4,5,6
5	AC Networks Theorems Thevenin's, Norton's & Max Power Transfer	18.1 –18.8	7	8
6	AC Networks Mesh & Superposition	19.1 – 19.12	Formal Lab S/P Circuits	8
7	Exam 1	20.1 – 20.14	Formal Lab S/P	10

	AC Power & Power Factor		Circuits	
8	AC Power		11	10
9	Resonance	23.1 -23.7, 23.15	12	7
10	Filters	21.1 – 21.8	Formal Lab Filter Circuits	7
11	Filters	21.1 – 21.8	Formal Lab Filter Circuits	7
12	Transformers	22.1- 22.8	15	3
13	Polyphase Systems	24.1 - 24.9	17	9
14	Polyphase Systems		Exam II	9
15	Pulse Waveforms		16	
16	Final Exam		Final Exam	

Homework is due 1 week from date assigned except week 15, which is due at the final exam. Reading assignments should be completed **prior** to the day of the lecture.

AC Circuits (3 semester credit hours) OET 003

Prerequisite: DC Circuits; Prerequisite/Co-requisite: Trigonometry (Trig. requirement may be met by embedded course objectives)

Topics:

1. Sinusoidal wave properties
2. Complex numbers and phasors
3. Behavior of transformers
4. Steady-state behavior of RC circuits under AC conditions
5. Steady-state behavior of RL circuits under AC conditions
6. Steady-state behavior of RLC circuits under AC conditions
7. Analysis of basic filter circuits
8. AC network theorems such as Superposition, Thevenin's and Norton's theorems
9. * Three-phase and/or poly-phase systems
10. * Power factor analysis

Description of Assessment and/or Evaluation of Student Learning (The assessment plan needs to be appropriate for the expected rigor of the course) :

Course Grade

The course grade will be determined by a weighted average of the following:

Category	Weight
Homework	15%
Quizzes	15%
Exams	25%
Lab	20%
Final Exam	25%

Homework

Homework will be collected at the beginning of the class period on the date it is due. **Collected problems must use the assigned Engineering Technology format and paper.**

Quizzes

Quizzes will be given daily at the beginning of class

Exams

There will be two exams during the semester.

Lab

Students are expected to work on the assigned lab during the scheduled lab period. The lab grade will be calculated by averaging the grades received on all lab reports. Lab reports are due at the beginning of the lab period one-week after the experiment is started. Two formal lab reports, with Writing Center input, will be required. All labs and lab reports must be completed to the satisfaction of the lab instructor in order to receive a passing grade for the course.

Lab Evaluations

Two Individual lab evaluations during will occur during the semester. Missed evaluations may not be made up.

Final Exam

A portion of the final exam will be over material covered after the exams. The remainder of the exam will be comprehensive.

Master Syllabi and Working Syllabi (if both are used):

STARK STATE COLLEGE OF TECHNOLOGY
ELECTRICAL/ELECTRONIC ENGINEERING TECHNOLOGY
COURSE SYLLABUS

EET122 COURSE DESCRIPTION:

Alternating current (AC) circuit analysis and instrumentation. Topics include: phasor analysis, network theorems, power, resonance, pulse analysis, transformers and instrumentation.

TECHNICAL OBJECTIVES:

Upon completion of this course, the student should have a basic understanding of AC circuits and be able to determine impedance, admittance, voltage, current, power, power factors, vector diagrams and wave forms through RLC circuits.

CRITICAL THINKING/COMPUTATIONAL SKILLS:

Technical skills are demonstrated by the student's ability to test and measure various types of circuitry by using various types of equipment provided in the lab.

COMPUTER APPLICATION SKILLS:

The students are instructed to use Multisims software to draw schematic diagrams, select the various types of circuitry and perform testing and measurement.

COMMUNICATION/INTERPERSONAL SKILLS:

Students are instructed to work in groups in the lab, interacting with each other by solving problems, writing reports, completing homework assignments and preparing for exams.

TEXTBOOK:

Introductory Circuit Analysis Lab Manual, Robert Boylestad, Prentice Hall Publishing Co.

NOTE: The student is responsible for lecture materials and materials in the text relating to lecture. No makeup work will be allowed without prior arrangement. The course content, syllabus, and calendar are subject to change based on the individual needs of the class.

g:\syllabus\EET122 ACCircuitAnalysis
Rev 11/18/02

Additional Documentation:

OBR Use

Approved-Effective Date	
Pending (i.e. Additional Information Requested)	
Disapproved	
Today's Date	

Course Material Submission Form
Instructions and notes

1. Submit completed forms to atpanels@regents.state.oh.us.
2. Use this form to define course matches and to submit new or revised course materials for faculty panel review. Please do not submit a form for multiple OANs or Courses.
3. For course renumbering and credit hour revision, remember to withdraw the old match.
4. For course renumbering and credit hour revision, you may want to include information about how the new numbers relate to the old in the Institutional Notes to the Faculty Panel.
5. Click check boxes to check the item. Text fields will expand as you enter information. Press tab to move forward through form. Press Shift-tab to move backward. Note that these tables are implemented as MS Word tables. Keep that in mind as you are copying and pasting between your syllabi and this form. It is possible to paste tables as nested tables. Use the Edit Menu "Paste as Nested Tables" selection.
6. Once you are done entering your information, save the data file. Under the File menu, choose "Save as" and then enter the name (no spaces!) of the file using the following naming conventions:

    a. For course material submissions: **Institution-OAN-Course Number-Sequence-Version. Institution** is the 4 character HEI institution designation. **OAN** is the Ohio Articulation Number whose match is being defined or revised. **Course Number** is the **transcript** course number. **Sequence** is an indication of which course of a multi-course match is addressed in this form. The sequence is of the form (n of m) for an m-course match. For example, 1 of 1 for a single course match or 1 of 2 and 2 of 2 for a 2 course match. **Version** is a number indicating the revision number of this submission. Start with "Ver1" for the first time submission and include the "Ver".

    Example:

    If you are submitting course materials for Rhodes Community College MATH110 for OMT005 the name of the file would be LMTC-OMT005-MATH110-(1 of 1)-Ver1.

    If you are submitting course materials for Rhodes Community College MATH111 and MATH112 for OMT006 the name of the files would be LMTC-OMT006-MATH111-(1 of 2)-Ver1 and LMTC-OMT006-MATH112-(2 of 2)-Ver1.

7. Course materials must be submitted according to timelines below:

Considering the submissions of **new** courses for TAG matches, our goal is to work toward a timeline as follows:

Submit Course Material:	Start of Term 1
Faculty Panels Review Submitted Courses:	During Term 1
Approved course is effective:	Start of Term 2
Approved course is matched for transcript processing:	Term 3

A new match will have to be approved according to the timeframes below:

Course Approval Sample Timelines

Quarter Institutions

	Summer	Autumn	Winter	Spring
Course Material Submitted for Review	By 6/1	By 8/15	By 1/1	By 3/1
Faculty Panel Reviews Completed	By 8/1	By 12/31	By 2/28	By 5/31

Semester Institutions

	Summer	Autumn	Spring
Course Material Submitted for Review	By 6/1	By 8/15	By 1/1
Faculty Panel Reviews Completed	By 8/1	By 12/31	By 5/31

8. If you want to submit supplementary supporting documentation, you may do that. Simply send the file along with this form and name the supplementary file **Institution-OAN-Course Number-Supplement. Institution, OAN,** and **Course Number** are as described in Number 6 above. Include the word **"Supplement".** Just be sure to reference the supplement from the appropriate spot in this document.
9. Remember that all institutions are required to have at least one course match for each OAN in all TAGs for which they have corresponding programs.
10. This form should be used for all submissions or resubmissions starting immediately.
11. If you encounter problems or have questions, please contact any of the individuals listed below:

    Jim Ginzer (614) 752-9486 jginzer@regents.state.oh.us
    Sam Stoddard (614) 752-9532 sstoddard@regents.state.oh.us
    Brett Berliner (614) 466-2004 bberliner@regents.state.oh.us