## ACADEMIC SENATE PROPOSAL TRACKING SHEET

(Document To Be Originated By Academic Senate Secretary On Canary Color Paper)

All proposals MUST have their originating college faculty body (Ex. Arts & Sciences, Education and Nursing; Technical Sciences) approval and must be signed by the submitter and the college dean before being submitted to the Academic Senate Secretary.

- Submit all proposals (using the appropriate Academic Senate program/degree and/or course revision forms) to the 1. Academic Senate Secretary.
- 2. The Academic Senate Secretary logs and numbers items and forwards them to the appropriate Academic Senate subcommittee(s): Teacher Education (if applicable), General Education (if applicable), or Curriculum.
- 3. The Academic Senate subcommittee(s) consider(s) the proposal. If approved, the proposal is forwarded to the next committee. If a committee disapproves the proposal, the originator may request that the item be forwarded to the next body for consideration. The committee will provide written rationale to the originator when a proposal is disapproved and the proposal is returned to the originator.
- 4. The Academic Senate considers the proposal and approves or disapproves. If approved, the proposal is forwarded to the Full Faculty for consideration. If the Academic Senate disapproves the proposal, the originator may request that the item be forwarded to the Full Faculty for consideration. The Academic Senate will provide written rationale to the originator when proposals are disapproved and the proposal is returned to the originator.
- 5. The Full Faculty considers Academic Senate approved proposals. If faculty approve, the proposal will then be forwarded to the Provost. The Provost approves or disapproves the proposal. If approved, the proposal is then forwarded to the Chancellor.
- The Chancellor approves or disapproves the proposal. 7.

Subcommittee and Academic Senate college representatives will notify their respective colleges' of the progress of submitted proposals or the proposal may be tracked via the web page --

#### http://www.msun.edu/admin/provost/asproposals.htm

Documentation and forms for the curriculum process is also available on the web page: http://www.msun.edu/admin/provost/asforms.htm

If a proposal is disapproved at any level, it is returned through the Academic Senate secretary to the Dean of the submitting college who then notifies the originator.)

nance -Proposal #  $()^{-} - 0^{-} \ell$ nomum 18C CA Title: \ (proposal explanation, submitter and college dean signatures of attached program/degree or course revision form)

Received by ACAD Senate Forwarded to Teacher Ed Council

Forwarded to Gen Ed Committee

Returned to ACAD Senate Forwarded to Curriculum Committee

Returned to ACAD Senate for Vote

Sent to Provost's office for Full Faculty vote Voted on at Full Faculty meeting

Forwarded to Provost for Approval/Disapproval

Forwarded to Chancellor for Approval/Disapproval

Copies sent to originating college and registrar's office Updated 09/29/05

Approved Disapproved Signature Date Approved Disapproved Signature Date H *b*proved Disapproved Signature Date Approved Disapproved Signature Date Approved Disapproved Signature Dat 3/2 Approved Disapproved Sign Date Disapproved Spproved -1-urs Signature Date

## **PROGRAM/DEGREE REVISION FORM**

## NEW\_\_\_\_ DROPPED\_\_\_\_ MAJOR REVISION\_\_\_\_ FOR INFORMATION ONLY\_\_

College <u>Technical Science</u> Program Area <u>Electrical Technology</u> Date 01/22/08

\_\_\_\_\_Dean \_ Date\_\_\_\_ Submitter\_

Signature (indicates "college" level approval)

Please provide a brief explanation & rationale for the proposed revision(s).

Need to replace a class in Industrial Electrical Wiring for the Medium and High Voltage class, ELEC 247. The ELEC 247 class is for lineman and powerline workers, while the Industrial Wiring class fits within the State approved curriculum for electrical apprentice coursework and is most appropriate for the Electrical trade and Electrical Technology program; electricians need residential, commercial, and industrial wiring approved work, signed off by their employers, before they can take the Master Electrician test.

Please provide in the space below a "before and after" picture of the program with the changes in the program noted. Attach appropriate Course Revision Forms. Please indicate changes by shading the appropriate cells.

#### PROPOSAL TITLE

Signature

## **Current Program listed** in 07-08 Catalog

Course	ļ		
Prefix	#	Course Title Credits	
CIS	_110	Intro to Computers (TECH) 3	
ELEC	101	Electrical Fundamentals 1 3	
ELEC	103	Electrical Code Study/Codeology 3	
HPE	234	First Aid & CPR 2	
ELEC	137	Electrical Drafting 2	
MAAS	106	Elementary Technical Math (MATH) 3	
ELEC	106	Electrical Formulas & Computations 3	
ELEC	111	Electric Meters & Motors 3	
ELEC	102	Electrical Fundamentals II 3	
ELEC	133	Basic Wiring 5	
ELEC	139	Electric Code Study-Residential 3	
ELEC	201	Alternating Current Theory	3
ELEC	205	Electrical Design & Lighting	3
ELEC	211	AC Measurements 3	
ELEC	233	Commercial Wiring Lab	3
ENGL	111	Written Communication I (COMM)	3
		or	
ENGL	112	Written Communication II (COMM)	
ELEC	204	Electrical Planning & Estimating	3
ELEC	236	Conduit, Raceways & Code Calculations	3
		Lab	
ELEC	239	Grounding/Bonding Fundamentals 3	
ELEC	241	Electric Motor Controls	3
IT	111	Industrial Safety/Waste Mgmt.	2
ELEC	247	Medium & High Voltage	3
SPCH	141	Fund. Of Speech (COMM)	
		or	3
SPCH	142	Interpersonal Communications	
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## **Proposed Program** for 08-09 Catalog

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SPCH	142	Interpersonal Communications	-	1
		or	3	1
SPCH	141	Fund. Of Speech (COMM)	1	1
ELEC	2XX	Industrial Electrical Wiring	3	1
IT	111	Industrial Safety/Waste Momt	2	1
ELEC	241	Electric Motor Controls	3	1
ELEC	239	Grounding/Bonding Fundamentals	3	4
ELEC	236	Conduit, Raceways & Code	3	
ELEC	204	Electrical Planning & Estimating	3	1 V Mr
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ELEC	201	Alternating Current Theory	3	
ELEC	139	Electric Code Study-Residential	3	ļ
ELEC	133	Basic Wiring	5	
ELEC	102	Electrical Fundamentals II	3	
ELEC	111	Electric Meters & Motors	3	ļ
ELEC	106	Electrical Formulas & Computations	3	
MAAS	106	Elementary Technical Math (MATH)	3	
ELEC	137	Electrical Drafting	2	ļ
HPE	234	First Aid & CPR	2	
ELEC	103	Electrical Code Study/Codeology	3	•
ELEC	101	Electrical Fundamentals I	3	
CIS	110	Intro to Computers (TECH)	3	
FIGUX	#	Course Title	Creans	

Additional instructional resources needed (including library materials, special equipment, and facilities). Please note: approval does not indicate support for new faculty or additional resources.

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## **COURSE REVISION FORM**

Signature	Signature (indicates "college" le	vel approval)
Submitter	Dean	Date
College Technical Sciences	Program Area Electrical Technology	Date 01/22/08_
NEW DROPPED	MAJOR REVISION_X FOR INFOR	MATION ONLY

Please provide a brief explanation & rationale for the proposed revision(s):

Need to replace a class in Industrial Electrical Wiring for the Medium and High Voltage class, ELEC 247. The ELEC 247 class is for lineman and powerline workers, while the ELEC 2XX Industrial Wiring class fits within the State approved curriculum for electrical apprentice coursework and is most appropriate for the Electrical trade and Electrical Technology program; electricians need residential, commercial, and industrial wiring approved work, signed off by their employers, before they can take the Master Electrician test.

Please provide the following information:

College:	College of Technical Sciences
Program Area:	Electrical Technology
Date:	01/22/08
Course Prefix & No.:	ELEC 2XX
Course Title:	Industrial Electrical Wiring
Credits:	3
Required by:	Electrical Technology program
Selective in:	N/A
Elective in:	N/A
<b>General Education:</b>	N/A
Lecture:	
Lecture/Lab:	Х
Gradable Lab:	
Contact hours lecture:	2 hour
Contact hours lab:	2 hours

Current Catalog Description (include all prerequisites): N/A

#### **Proposed or New Catalog Description (include all prerequisites):**

This course covers construction plans for industrial sites and details regarding unit substations, feeder bus systems, panelboards, trolley busways, wire tables and sizing, signaling systems, motors and controllers, motor installations, power factor, lightning protection, ventilation and exhaust systems, Programmable logic controllers, fiber optics, hazardous locations, and harmonics.

## **Course Outcome Objectives:**

The student will be able to:

- Identify the special safety hazards associated with industrial electricity
- Articulate the proper procedures necessary to perform maintenance or installation of equipment in an industrial setting
- Demonstrate proper connection techniques for motors and controllers, trolley and hoist systems
- Perform routine tests on high voltage electrical connections and equipment
- Demonstrate the proper use of safety equipment used in industrial electrical work
- Understand Industrial Electrical high voltage work

# Additional instructional resources needed (including library materials, special equipment, and facilities). Please note: approval does not indicate support for new faculty or additional resources.

ELEC2XXcourserevformfall08



Montana State University-Northern COLLEGE OF TECHNICAL SCIENCES Electrical Technology

January 22, 2008

To Whom it May Concern:

We propose that a change be made to the program of instruction for Electrical Technology classes in the Fall of 2008 and Spring of 2009 to accommodate a necessary change of class from instructing Medium and High Voltage for lineman to instructing Electrical Wiring for Industrial.

The need to replace a class in Industrial Electrical Wiring for the Medium and High Voltage class, ELEC 247 is two-fold. The ELEC 247 class is for lineman and powerline workers, while the Industrial Wiring class fits within the State approved curriculum for electrical apprentice coursework and is most appropriate for the Electrical trade and Electrical Technology program. Electricians need residential, commercial, and industrial wiring approved work, signed off by their employers, before they can take the Master Electrician test.

In addition, electricians work in areas such as grain elevators, natural gas facilities, maintenance facilities that require control work for hoists, cranes, conveyors, mining process equipment and the like. We are working in collarboration with the mining industry on job placement and would like to facilitate the education and training necessary for industrial type work. There is a lineman's course being taught at Montana Technical College as well.

Your consideration in this matter would be greatly appreciated.

Respectfully yours in service,

Trygve C. Magelssen