Proposal Status: Workflow Started

Information Item

Title of proposal (must begin with department abbreviation): ENEE - Course Renaming

Place an X next to the ones that apply:

☒	Renaming a course
☒	Renumbering a course, other than increasing or decreasing by multiples of 1000 (e.g., 1010 to 1200; or 2030 to 2300)
☐	Editorial changes to the catalog text or other official documents for clarity or to reflect approved and established policies, procedures and requirements
☐	Cross-listing an existing course
☐	Removing departmental courses that have not been offered for at least three years and that the department would like to have removed from the catalog.
☐	Changing the name of a major or concentration when no curriculum changes are involved.

Effective date: Fall 2015

Contact information:

Spokesperson Name:Ahmed Eltom	Department:Electrical Engineering
Building:EMCS	Office Number:331C
Phone Extension:4381	Email:Ahmed-Eltom@utc.edu

Faculty of the originating department approved this proposal on 10/27/2014 (date)
by a vote of 6 aye votes; 0 nay votes; 0 abstentions; 3 eligible voting members absent

1. Description of proposed changes
   1.
   Rename and renumber Electrical Circuits I Lab (2700L) to Electrical Circuits Lab (ENEE 2710L).

   2.
   “Linear Controls and Drives Laboratory” (ENEE 4790) change code to ENEE 4790L.

   3.
   “Analog and Digital Communications” (ENEE 4750) change name to “Analog Communications”.

   4.
   “Electrical Machinery Laboratory” (ENEE 3800L) change name to “Electrical Energy Conversion Laboratory”.

2. Rationale for requested change
   Include any information and/or data which is being used to justify the change(s).

3.
   1.
   Renaming and renumbering Electrical Circuits I Lab (2700L) to Electrical Circuits Lab (ENEE 2710L) is a necessary change since it is no longer attached to a companion lecture course (ENEE 2700)

2.
"Linear Controls and Drives Laboratory" (ENEE 4790) changing the code to ENEE 4790L corrects the name to conform to lab naming convention (ending in the letter L).

3.
"Analog and Digital Communications" (ENEE 4750) changing the name to "Analog Communications" reflects that fact the course actually teaches only analog communications.

4.
"Electrical Machinery Laboratory" (ENEE 3800L) changing the name to "Electrical Energy Conversion Laboratory" corrects the name to conform to lab naming convention (matching the names of the companion lab-lecture pairs).

4. Current course or listing in the Catalog

Prefix:	Number:
1. ENEE 2. ENEE 3. ENEE 4. ENEE	1. 2700L 2. 4790 3. 4750 4. 3800L
Title:	Credit Hours:
1. Electrical Circuits I Laboratory 2. Linear Controls and Drives Laboratory 3. Analog and Digital Communications 4. Electrical Machinery Laboratory	1. 1 hour 2. 1 hour 3. 3 hours 4. 1 hour
Prerequisites:	Co-Requisites:
1. N/A 2. ENEE 3790 and ENEE 3800 3. ENGR 2220 and ENEE 3250 4. N/A	1. ENEE 2700 2. N/A 3. N/A 4. ENEE 3800
Cross-listed courses:	

5. Current course description or listing in the Catalog
   1. ENEE 2700L - Electrical Circuits I Laboratory
(1) Credit Hours

Introduction to laboratory instrumentation, measurement techniques, and electrical circuit elements. Laboratory experiments to support the introduction to DC circuit analysis, Kirchhoff's laws, network theorems, transient analysis, phasor and AC circuits analysis. Digital computer analysis of electrical circuits using such tools as PSPICE. Fall and summer semesters. Laboratory 3 hours. Corequisite: ENEE 2700 or department head approval. Laboratory/studio course fee will be assessed. Differential course fee will be assessed.

2. ENEE 4790 - Linear Controls and Drives Laboratory
(1) Credit Hours

Introduction to components in an electrical drive system, building real-time control system using Matlab/Simulink interface, PI and dual loop algorithm as applied to servomotor position control, state variable feedback control application, and experiments tailored toward electric drives

systems such as open-loop speed control and characterization of dc-motor; dc motor speed control under load and control of induction and permanent magnet ac motors. Fall semester. Laboratory 3 hours Prerequisites: ENEE 3790 and ENEE 3800 with minimum grades of C or department head approval. Laboratory/studio course fee will be assessed. Differential course fee will be assessed.

3. ENEE 4750 - Analog and Digital Communications
(3) Credit Hours

Definitions and basic concepts of analog and digital modulation techniques. Global and societal effects of communications technology. Transmission of signals through linear filters, time-bandwidth relationships. Amplitude, frequency, and pulse modulation techniques described and analyzed. Periodic sampling and the Nyquist sampling criterion. Applications of probability to error rates and noise probabilities. OSI Model. Fall semester. Lecture 3 hours. Prerequisites: ENGR 2220 and ENEE 3250 with minimum grades of C or department head approval. Differential course fee will be assessed.

4. ENEE 3800L - Electrical Machinery Laboratory
(1) Credit Hours

Experimental study of transformer and machine behavior. Design project included. Spring semester. Laboratory 3 hours. Corequisite: ENEE 3800 or department head approval. Laboratory/Studio course fee will be assessed. Differential course fee will be assessed.

6. Proposed new course as it will be listed in the Catalog

Prefix: 1. ENEE 2. ENEE 3. ENEE 4. ENEE	Number: 1. 2710L 2. 4790L 3. 4750 4. 3800L
Title: 1. Electrical Circuits I Laboratory 2. Linear Controls and Drives Laboratory 3. Analog Communications 4. Electrical Energy Conversion Laboratory	Credit Hours: 1. 1 hour 2. 1 hour 3. 3 hours 4. 1 hour
Prerequisites: 1. ENEE 2700 and ENGL 2810 2. ENEE 3790 and ENEE 3800 3. ENGR 2220 and ENEE 3250 4. N/A	Co-Requisites: 1. ENEE 2700 and ENGL 2810 2. N/A 3. N/A 4. ENEE 3800
Cross-listed courses:	

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7. Proposed new course description to be listed in the Catalog (catalog copy)

1. ENEE 2710L - Electrical Circuits I Laboratory
(1) Credit Hours

Introduction to laboratory instrumentation, measurement techniques, and electrical circuit elements. Laboratory experiments to support the introduction to DC circuit analysis, Kirchhoff's laws, network theorems, transient analysis, phasor and AC circuits analysis. Digital computer analysis of electrical circuits using such tools as PSPICE. Fall and summer semesters. Laboratory 3 hours. Pre- or Corequisite: ENGL 2810 and ENEE 2700 or department head approval. Laboratory/studio course fee will be assessed. Differential course fee will be assessed.

2. ENEE 4790L - Linear Controls and Drives Laboratory
(1) Credit Hours

Introduction to components in an electrical drive system, building real-time control system using Matlab/Simulink interface, PI and dual loop algorithm as applied to servomotor position control, state variable feedback control application, and experiments tailored toward electric drives systems such as open-loop speed control and characterization of dc-motor; dc motor speed control under load and control of induction and permanent magnet ac motors. Fall semester. Laboratory 3 hours Prerequisites: ENEE 3790 and ENEE 3800 with minimum grades of C or department head approval. Laboratory/studio course fee will be assessed. Differential course fee will be assessed.

3. ENEE 4750 - Analog Communications
(3) Credit Hours

Definitions and basic concepts of analog and digital modulation techniques. Global and societal effects of communications technology. Transmission of signals through linear filters, time-bandwidth relationships. Amplitude, frequency, and pulse modulation techniques described and analyzed. Periodic sampling and the Nyquist sampling criterion. Applications of probability to error rates and noise probabilities. OSI Model. Fall semester. Lecture 3 hours. Prerequisites: ENGR 2220 and ENEE 3250 with minimum grades of C or department head approval. Differential course fee will be assessed.

4. ENEE 3800L - Electrical Energy Conversion Laboratory
(1) Credit Hours

Experimental study of transformer and machine behavior. Design project included. Spring semester. Laboratory 3 hours. Corequisite: ENEE 3800 or department head approval. Laboratory/Studio course fee will be assessed. Differential course fee will be assessed.

Direction for uploading supporting documents:

1. **To upload your model syllabus to the folder for your proposal go to https://spaces.utc.edu/sites/UndergraduateProposal.**
2. **Next, click on the name of your proposal under "My Proposals".**
3. **Click the "Documents" tab and then click the "Upload Document" tab.**

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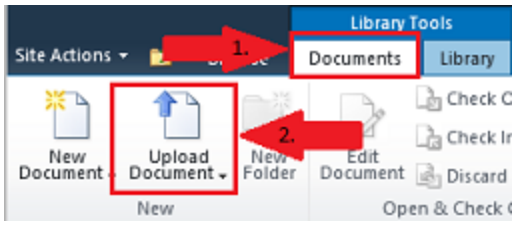
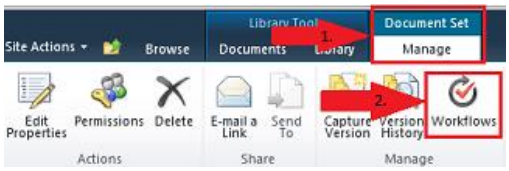


Important: After completing your proposal you must start the *Curriculum Proposal Workflow*.

To begin workflow:

1. Click on the name of your proposal below.
2. Next, click the "Document Set Manage" tab in the ribbon at the top of the page and select the "Workflows" button.



3. Under "Start a New Workflow" click "Curriculum Proposal Workflow" and then click the "Start" button.

Workflow Sequence for Information Item

1. Department Head
2. College Curriculum Committee
3. College Dean
4. Other Areas Affected (If any)
5. Records Office
6. Associate Provost
7. Faculty Senate Curriculum Committee