Chair: Tracy Christofero | GC#4: Major or Degree

## Request for Graduate Addition, Deletion, or Change of a Major or Degree

NOTE: Before you submit a request for a new Major or Degree, you must submit an INTENT TO PLAN form. Only after the INTENT TO PLAN goes through the approval process are you ready to submit this request for a new Major or Degree. For detailed information on new programs please see: <a href="http://wvhepcdoc.wvnet.edu/resources/133-11.pdf">http://wvhepcdoc.wvnet.edu/resources/133-11.pdf</a>.

i. Prepare one paper copy with all signatures and supporting material and forward to the Graduate Council Chair. 2. E-mail one PDF copy without signatures to the Graduate Council Chair. 3. The Graduate Council cannot process this application until it has received both the PDF copy and the signed hard copy.				
College: CITE Dept/Division	n:Engineering			
Contact Person: Dr. Eldon R. Larsen	Phone: 304-746-2047			
Degree Program M.S.E. (M. S. in Engineering)				
Check action requested: Addition Deletion 🗵 Change				
Effective Term/Year Fall 20 Spring 20 Summe	er 20 18			
Information on the following pages must be completed before signat	ures are obtained.			
Signatures: if disapproved at any level, do not sign. Return to previous :	signer with recommendation attached.			
Dept. Chair/Division Head	Date 3/22/12			
College Curriculum Chair	Date			
College Dean Wask	Date 02/27/2013			
Graduate Council Chair	Date			
Provost/VP Academic Affairs	Date			
Presidential Approval	Date			
Board of Governors Approval	Date			

Please provide a rationale for addition, deletion, change: (May attach separate page if needed)
We want to give our Engineering Management graduate students the option to take either EM 694 Engineering Law or ES 550 Environmental Law, rather than only EM 694 Engineering Law.
Please describe any changes in curriculum: List course number, title, credit hours. Note whether each course is required or optional. Enter NONE if no change. (May attach separate
page if needed) Students will now be required to take either EM 694 or ES 550. Before they were required to take EM 694.
1. ADDITIONAL RESOURCE REQUIREMENTS: If your program requires additional faculty, equipment or specialized materials to ADD or CHANGE this major or degree, attach an estimate of the time and money required to secure these items.  NOTE: Approval of this form does not imply approval for additional resources. Enter NONE if not applicable.
NONE
2. NON-DUPLICATION: If a question of possible duplication occurs, attach a copy of the correspondence sent to the appropriate department(s) describing the request and any response received from them. Enter NONE if not applicable.
NONE
For catalog changes as a result of the above actions, please fill in the following pages.

#### 3. Current Catalog Description

Insert the *Current* Catalog Description and page number from the latest catalog for entries you would like to change. (May attach separate page if needed)

Please see attached separate pages for both the current catalog description and edits to the current description.

#### 4. Edits to the Current Description

Attach a PDF copy of the current catalog description prepared in MS WORD with strikethroughs to mark proposed deletions and use the highlight function to indicate proposed new text.

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#### 5. New Catalog Description

Insert a 'clean' copy of your proposed description, i.e., no strikethroughs or highlighting included. This should be what you are proposing for the new description. (May attach separate page if needed)

See attached page.

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Please insert in the text box below your change summary information for the Graduate Council agenda. Please enter the information exactly in this way (including headings):

Department:
Major or Degree:
Type of Change (addition

Type of Change: (addition, deletion, change)

Rationale:

**Department: Engineering** 

Major or Degree: Engineering Management major, in the M.S.E. degree

Type of Change: Change

Rationale: We want to give our Engineering Management graduate students the option to take either EM 694 Engineering Law or ES 550 Environmental Law, rather than only EM 694 Engineering Law.

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#### **CURRENT CATALOG DESCRIPTION**

#### **MAJOR: Engineering Management**

Coursework O	only Op	tion (33 hours)	
Required c	ourses	` ,	
EM	620	Management of Technical Human Resources and Organizations	3 hrs.
EM	660	Project Management	3 hrs.
EM	668	Operations Management	3 hrs.
EM	670	Seminar in Engineering Management	3 hrs.
EM	675	Engineering Economics (or TM equivalent)	3 hrs.
EM	694	Engineering Law	3 hrs.
ENGR	610	Applied Statistics	3 hrs.
Elective	courses	(see approved Engineering Management electives below)	9 hrs.
Project Option		ours)	
Required c			
EM	620	Management of Technical Human Resources and Organizations	3 hrs.
EM	660	Project Management	3 hrs.
EM	668	Operations Management	3 hrs.
EM	670	Seminar in Engineering Management	3 hrs.
EM	675	Engineering Economics (or TM equivalent)	3 hrs.
EM	694	Engineering Law	3 hrs.
ENGR	610	Applied Statistics	3 hrs.
TE	699	Comprehensive Project	3 hrs.
Elective	courses	(see approved Engineering Management electives below)	6 hrs.
Thesis Option		urs)	
Required c	ourses		
EM	620	Management of Technical Human Resources and Organizations	3 hrs.
EM	660	Project Management	3 hrs.
EM	668	Operations Management	3 hrs.
EM	670	Seminar in Engineering Management	3 hrs.
EM	675	Engineering Economics (or TM equivalent)	3 hrs.
EM	694	Engineering Law	3 hrs.
ENGR	610	Applied Statistics	3 hrs.
ENGR	682	Research	6 hrs.
Elective	courses	(see approved Engineering Management electives below)	3 hrs.

#### Approved Elective Courses for the Engineering Management Major

Any EM (Engineering Management) course.

Any TM (Technology Management) course.

Any College of Business course approved in advance by the advisor.

Any engineering course approved in advance by the advisor.

#### **EDITED CURRENT CATALOG DESCRIPTION**

#### **MAJOR: Engineering Management**

Coursework O	nly Op	tion (33 hours)	
Required c	ourses	•	
EM	620	Management of Technical Human Resources and Organizations	3 hrs
EM	660	Project Management	3 hrs
EM	668	Operations Management	3 hrs
EM	670	Seminar in Engineering Management	3 hrs
EM	675	Engineering Economics (or TM equivalent)	3 hrs
EM	694	Engineering Law, or ES 550 Environmental Law	3 hrs
ENGR	610	Applied Statistics	3 hrs
Elective	courses	s (see approved Engineering Management electives below)	9 hrs
Project Option		ours)	
Required c			
EM	620	Management of Technical Human Resources and Organizations	3 hrs
EM	660	Project Management	3 hrs
EM	668	Operations Management	3 hrs
EM	670	Seminar in Engineering Management	3 hrs
EM	675	Engineering Economics (or TM equivalent)	3 hrs
EM	694	Engineering Law, or ES 550 Environmental Law	3 hrs
ENGR	610	Applied Statistics	3 hrs
TE	699	Comprehensive Project	3 hrs
Elective	courses	s (see approved Engineering Management electives below)	6 hrs
Thesis Option	(30 hou	urs)	
Required c			
EM	620	Management of Technical Human Resources and Organizations	3 hrs
EM	660	Project Management	3 hrs
EM	668	Operations Management	3 hrs
EM	670	Seminar in Engineering Management	3 hrs
EM	675	Engineering Economics (or TM equivalent)	3 hrs
EM	694	Engineering Law, or ES 550 Environmental Law	3 hrs
ENGR	610	Applied Statistics	3 hrs
ENGR	682	Research	6 hrs
Elective	courses	(see approved Engineering Management electives below)	3 hrs

#### Approved Elective Courses for the Engineering Management Major

Any EM (Engineering Management) course.

Any TM (Technology Management) course.

Any College of Business course approved in advance by the advisor.

Any engineering course approved in advance by the advisor.

#### **New CATALOG DESCRIPTION**

#### **MAJOR: Engineering Management**

Coursework C	Inly Op	tion (33 hours)	
Required c	ourses		
EM	620	Management of Technical Human Resources and Organizations	3 hrs
EM	660	Project Management	3 hrs
EM	668	Operations Management	3 hrs
EM	670	Seminar in Engineering Management	3 hrs
EM	675	Engineering Economics (or TM equivalent)	3 hrs
EM	694	Engineering Law, or ES 550 Environmental Law	3 hrs
ENGR	610	Applied Statistics	3 hrs
Elective	courses	(see approved Engineering Management electives below)	9 hrs
Project Option		ours)	
Required c			
EM	620	Management of Technical Human Resources and Organizations	3 hrs
EM	660	Project Management	3 hrs
EM	668	Operations Management	3 hrs
EM	670	Seminar in Engineering Management	3 hrs
EM	675	Engineering Economics (or TM equivalent)	3 hrs
EM	694	Engineering Law, or ES 550 Environmental Law	3 hrs
ENGR	610	Applied Statistics	3 hrs
TE	699	Comprehensive Project	3 hrs
Elective	courses	(see approved Engineering Management electives below)	6 hrs
Thesis Option		urs)	
Required c			
EM	620	Management of Technical Human Resources and Organizations	3 hrs
EM	660	Project Management	3 hrs
EM	668	Operations Management	3 hrs
EM	670	Seminar in Engineering Management	3 hrs
EM	675	Engineering Economics (or TM equivalent)	3 hrs
EM	694	Engineering Law, or ES 550 Environmental Law	3 hrs
ENGR	610	Applied Statistics	3 hrs
ENGR	682	Research	6 hrs
Elective	courses	(see approved Engineering Management electives below)	3 hrs

# Approved Elective Courses for the Engineering Management Major Any EM (Engineering Management) course. Any TM (Technology Management) course. Any College of Business course approved in advance by the advisor. Any engineering course approved in advance by the advisor.