Chair: Tracy Christofero GC#4: Major or Degr

# 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 PL 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>.

1. 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		De	pt/Division:Engineering	9	
Contact Person: Eldon R.	Larsen			Phone: 304-746-2047	-
Degree Program M.S.E. Check action requested:	Addition	Deletion 🔀	Change		
Effective Term/Year	Fall 20	Spring 20	Summer 20 17		

Information on the following pages must be completed before signatures are obtained.

Signatures: if disapproved at any level, do not sign. Return to previous signer with recommendation attached.

Dept. Chair/Division Head	Date 1/23/17
College Curriculum Chair	Date 1/25/17
College Dean Waell	Date 1/30/17
Graduate Council Chair	Date3-14-17
Provost/VP Academic Affairs	Date
Presidential Approval	Date
Board of Governors Approval	Date

Form updated 3/2012

Please provide a rationale for addition, deletion, change: (May attach separate page if needed)

In order to make our requirements more internally consistent with each other, with respect to credit-hour workload, we are reducing the coursework-only option to 30 credit hours. Thus, the coursework-only option will require 30 credit hours of regular courses with a comprehensive assessment exam. The other two options with stay as they currently are, being (a) 27 credit hours plus a 3 credit-hour Comprehensive Project, and (b) 24 credit hours plus a 6 credit-hour thesis. All three options will thus require 30 credit hours of work, and will be internally consistent, and fair to our students. Editorially, the order for the options for each major has been rearranged to list the coursework-only option first for each major.

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)

See Attachment

**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.

# Request for Graduate Addition, Deletion, or Change of a Major or Degree-Page 3

## 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)

See Attachment

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## 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.

# Request for Graduate Addition, Deletion, or Change of a Major or Degree-Page 4

## 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 Attachment

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# Request for Graduate Addition, Deletion, or Change of a Major or Degree-Page 5

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, deletion, change) Rationale:

**Department: Engineering** 

Major or Degree: All majors (Engineering Management; Environmental Engineering; Transportation and Infrastructure Engineering

Type of Change: (addition, deletion, change) Change

Rationale: In order to make our requirements more internally consistent with each other, with respect to credit-hour workload, we are reducing the coursework-only option to 30 credit hours. Thus, the coursework-only option will require 30 credit hours of regular courses with a comprehensive assessment exam. The other two options with stay as they currently are, being (a) 27 credit hours plus a 3 credit-hour Comprehensive Project, and (b) 24 credit hours plus a 6 credit-hour thesis. All three options will thus require 30 credit hours of work, and will be internally consistent, and fair to our students. Editorially, the order for the options for each major has been rearranged to list the coursework-only option first for each major.

## **CURRENT CATALOG DESCRIPTION**

## **ENGINEERING, M.S.**

## Majors

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Engineering Management Environmental Engineering Transportation and Infrastructure Engineering.

### **Program Description**

The M.S. in Engineering (M.S.E.) program is an interdisciplinary engineering program designed to meet the specific needs of engineers employed in industry, government, and consulting, as well as those desiring a traditional research-based graduate degree. The program offers a broad core curriculum with opportunities for concentrated study in three majors: Engineering Management, Environmental Engineering, and Transportation and Infrastructure Engineering.

### **Admission Requirements**

Applicants should follow the admissions process described in this catalog or at the Graduate Admissions website: www.marshall.edu/graduate/admissions/how-to-apply-for-admission. Each applicant for admission to the M.S. in Engineering degree program must have an undergraduate engineering degree from either an accredited ABET curriculum or an internationally recognized program and meet one of the following (A, B, or C) admission requirement options:

- A. Pass the PE exam, or
- B. Have an undergraduate cumulative GPA of 3.00 or greater, or
- C. Have an undergraduate cumulative GPA of 2.50 or greater. and satisfy at least two of the following: (1) Pass the FE exam;
  - (2) Verbal GRE score of at least 145;
  - (3) quantitative GRE score at least 150; and/or
  - (4) analytical writing GRE score at least 3.0.
- Additionally, to be considered for admission, international students must have an iBT TOEFL score of at least 85. or a Paper-Based TOEFL score of at least 527.
- Students who do not meet admission requirement options A, B, or C arc welcome to apply, and their applications will be considered for admission on a case-by-case basis. The program admission recommendation will be decided by the M.S.E. degree program coordinator based on a combination of GRE scores and level of performance in undergraduate engineering coursework. Applicants who do not meet the above criteria but who do have an undergraduate engineering degree are welcome to apply as non-degree seeking students and take courses toward an M.S.E. degree. If a non-degree seeking student has at least a minimum cumulative graduate GPA of 3.30 in his or her first 9 credit hours of CITE M.S.E. courses, that student may re-apply to the university to be considered for admission to the M.S.E. degree program.
- Eligibility to take the PE exam is based primarily on completion of an ABET-accredited undergraduate engineering degree in most states. Completion of a M.S.E. graduate degree at an institution with an ABET-accredited undergraduate degree does not fulfill that requirement to take the PE exam.

#### **Degree Requirements**

Each degree candidate is required to complete at least 30-33 graduate credit hours, depending on the option chosen below (project, thesis, or coursework only), with a cumulative Grade Point Average of 3.0 for the courses included in the student's Plan of Study. At least one-half of the minimum required hours for the degree must be earned in classes numbered 600 or above.

Each degree-seeking student must file an approved Plan of Study, developed with a faculty advisor, before the student registers for the 12th credit hour. The Academic Regulations portion of the Graduate Catalog may be consulted for additional information.

A student may only earn the M.S.E. degree once. Therefore, students wishing to complete two of the three M.S.E. majors (*i.e.*, double major) must complete all requirements for both majors before the degree is awarded. A maximum of 12 credit hours may be counted toward both majors, as approved by the student's academic advisor in each major. An option must be selected for each major and the two options are permitted to be different. However, each major must have its own comprehensive assessment (*i.e.*, comprehensive project, thesis, or comprehensive examination). For example, a single thesis and defense cannot satisfy the requirements for both majors.

Students may choose to complete either the project option, the thesis option, or the coursework only option after consultation with their academic advisors.

Project Option. The comprehensive project involves the application of coursework completed as part of the degree to a practical problem. Students will work with their advisors to identify an appropriate project and scope. Students must prepare a formal written report and deliver an oral presentation to a committee. Students register for TE 699, Comprehensive Project (3 hrs.) during the semester in which their project will be completed and presented, but preliminary work on the project may commence before that semester.

Thesis Option. The thesis option involves the completion of 6 hours of research (ENGR 682) under the direction of an advisor on an approved project. Students must summarize their work in the form of a formal, written document and successfully defend the thesis before a committee. Thesis work is typically conducted over two semesters.

Coursework Only Option. Students can complete 33 hours of coursework and then complete a comprehensive examination within the last two semesters of graduation to fulfill the requirements of their degree program. Examinations will be administered once per semester for all students.

### **MAJOR: Engineering Management**

### **Project Option (30 hours)**

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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.
TE	699	Comprehensive Project	3 hrs.

6 hrs.

3 hrs.

Elective courses (see approved Engineering Management electives below)

## Thesis Option (30 hours)

ourses	-,	
620	Management of Technical Human Resources and Organizations	3 hrs.
660	Project Management	3 hrs.
668	Operations Management	3 hrs.
670	Seminar in Engineering Management	3 hrs.
675	Engineering Economics (or TM equivalent)	3 hrs.
694	Engineering Law	3 hrs.
610	Applied Statistics	3 hrs.
682	Research	6 hrs.
	660 668 670 675 694 610	<ul> <li>Management of Technical Human Resources and Organizations</li> <li>Project Management</li> <li>Operations Management</li> <li>Seminar in Engineering Management</li> <li>Engineering Economics (or TM equivalent)</li> <li>Engineering Law</li> <li>Applied Statistics</li> </ul>

Elective courses (see approved Engineering Management electives below)

### **Coursework Only Option (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	• • •	Engineering Law	3 hrs.
ENGR		Applied Statistics	3 hrs.
Elective	courses	s (see approved Engineering Management electives below)	12 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.

## **MAJOR:** Environmental Engineering

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Each Environmental Engineering major must have completed the Foundation Courses listed below (and their associated prerequisites), or their equivalents as approved by their advisor before being fully admitted. Until this requirement is satisfied, the student can only receive Provisional admission to the program. All other admission requirements must still be satisfied.

Foundation Courses: ENGR 318 Fluid Mechanics CE 331 Hydraulic Engineering CE 432 Water/Wastewater Treatment

<b>Project Option</b>	. (30 ho	ours)	
Required c	ourses		
One of: I	ENGR 6	510, ENGR 620, or ME 601	3 hrs
ENVE		Environmental Chemistry	3 hrs
TE	699	Comprehensive Project	3 hrs
Three cours	es – one	e per category – from among the following six categories	9 hrs
(1) En	gineerir	ng Management: EM 660	
(2) Wa	ater/Wa	stewater: ENVE 616 or ENVE 617	
(3) So	lid/Haza	ardous Waste: ENVE 620 or ENVE 625	
(4) Ai	r Polluti	ion: ENVE 611, ENVE 612, ENVE 680, or ES 604	
(5) Hy	draulics	s/Hydrology: ENVE 670, ENVE 671, or ENVE 672	
(6) En	v. Reme	ediation/Risk/Mgmt: ENVE 682, ES 514, ES 620	
Elective cou	<i>rses</i> (se	ee approved Environmental Engineering electives below)	12 hrs
Thesis Option.	(30 ho	urs)	
Required	d course	25	
One of:	ENGR (	610, ENGR 620, or ME 601	3 hrs
ENVE	615	Environmental Chemistry	3 hrs
ENGR	682	Research	6 hrs
Three cours	es – on	e per category – from among the following six categories	9 hrs
		ng Management: EM 660	
(2) Wa	ater/Wa	stewater: ENVE 616 or ENVE 617	
(3) So	lid/Haz	ardous Waste: ENVE 620 or ENVE 625	
(4) Ai	r Polluti	ion: ENVE 611, ENVE 612, ENVE 680, or ES 604	
(5) Hy	draulic	s/Hydrology: ENVE 670, ENVE 671, or ENVE 672	
(6) En	v. Rem	ediation/Risk/Mgmt: ENVE 682, ES 514, ES 620	
Elective	courses	s (see approved Environmental Engineering electives below)	9 hrs.

**Coursework Only Option. (33 hours)** 

Required courses	
One of: ENGR 610, ENGR 620, or ME 601	3 hrs
ENVE 615 Environmental Chemistry	3 hrs
Three courses – one per category – from among the following six categories	9 hrs
(1) Engineering Management: EM 660	
(2) Water/Wastewater: ENVE 616 or ENVE 617	
(3) Solid/Hazardous Waste: ENVE 620 or ENVE 625	
(4) Air Pollution: ENVE 611, ENVE 612, ENVE 680, or ES 604	
(5) Hydraulics/Hydrology: ENVE 670, ENVE 671, or ENVE 672	
(6) Env. Remediation/Risk/Mgmt: ENVE 682, ES 514, ES 620	
Elective courses (see approved Environmental Engineering electives below)	18 hrs
Approved Elective Courses for the Environmental Engineering Major	
Any ENVE course.	
Any course listed above not already taken.	
ES 550 Environmental Law	

ES 630 Environmental Site Assessment ES 640 Groundwater Principles and Monitoring

Other courses approved in advance by the student's advisor.

### **MAJOR:** Transportation and Infrastructure Engineering

Each Transportation and Infrastructure Engineering major must have completed the Foundation Courses listed below (and their associated prerequisites), or their equivalents as approved by his or her advisor, before being fully admitted. Until this requirement is satisfied, the student can only receive Provisional admission to the program. All other admission requirements must still be satisfied.

### Foundation courses

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CE 342 Transportation Engineering

CE 413 Reinforced Concrete or CE 414 Steel Design

Students pursuing the Project Option or the Thesis Option must choose either Transportation Engineering or Structural Engineering as their primary focus. The other discipline will be the student's secondary focus. Three courses must be completed in the primary focus and two courses in the secondary focus for the Project and Thesis options. The Coursework Only Option requires three courses in both disciplines.

## **Project Option (30 hours)**

ENGR	610	Applied Statistics or other Advisor-Approved MTH course	3 hrs.
Three (3)	Course	es in Primary Focus (Structural Engineering or Transportation Engineering)	9 hrs.
Two (2) (	Courses	in Secondary Focus (Structural Engineering or Transportation Engineering)	6 hrs.
Three (3)	Electiv	ve Courses	9 hrs.
ENGR	699	Comprehensive Project	3 hrs.
Thesis Opt	ion (30	hours)	
ENGR	610	Applied Statistics or other Advisor-Approved MTH course	3 hrs.
Three (3) Courses in Primary Focus (Structural Engineering or Transportation Engineering)			9 hrs.
Two (2) (	Courses	in Secondary Focus (Structural Engineering or Transportation Engineering)	6 hrs.
Two (2) E	Elective	Courses	6 hrs.
ENGR	682	Research	6 hrs.
Coursewor	k-Only	Option (33 hours)	
ENGR	610	Applied Statistics or other Advisor-Approved MTH course	3 hrs.
EM	660	Project Management	3 hrs.
Three (3) Courses in Structural Engineering9			9 hrs.

Three (3) Courses in Transportation Engineering		9 hrs.		
Thre	e (3)	Electiv	ve Courses	9 hrs.
Struct	ural I	Engine	eering Courses	
C	СE	612	Structural Steel Design and Behavior	3 hrs.
C	CE	614	Advanced Reinforced Concrete Structure Design and Behavior	3 hrs.
C	CE	615	Finite Element Applications in Civil Engineering	3 hrs.
C	CE	616	Pre-stressed Concrete Design	3 hrs.
C	CE	618	Bridge Engineering	3 hrs.
Trans	porta	tion E	ngineering Courses	
Ċ	ĊΕ	534	Geometric Design of Highways	3 hrs.
(	CE	538	Pavement Design	3 hrs.
(	CE	634	Traffic Engineering	3 hrs.
(	CE	635	Evaluation of Transportation Systems	3 hrs.
(	CE	636	Transportation Planning	3 hrs.
(	CE	637	Highway Safety Engineering	3 hrs.

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## Approved Elective Courses for the Transportation and Infrastructure Engineering Major

Any Transportation Engineering or Structural Engineering course not already taken. Any ENVE (Environmental Engineering) course approved in advance by the student's advisor. Any EM (Engineering Management) course approved in advance by the student's advisor. Other courses approved in advance by the student's advisor.

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## **CURRENT CATALOG DESCRIPTION WITH CHANGES MARKED**

## **ENGINEERING, M.S.**

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## Majors Engineering Management Environmental Engineering Transportation and Infrastructure Engineering.

### **Program Description**

The M.S. in Engineering (M.S.E.) program is an interdisciplinary engineering program designed to meet the specific needs of engineers employed in industry, government, and consulting, as well as those desiring a traditional research-based graduate degree. The program offers a broad core curriculum with opportunities for concentrated study in three majors: Engineering Management, Environmental Engineering, and Transportation and Infrastructure Engineering.

### **Admission Requirements**

Applicants should follow the admissions process described in this catalog or at the Graduate Admissions website: www.marshall.edu/graduate/admissions/how-to-apply-for-admission. Each applicant for admission to the M.S. in Engineering degree program must have an undergraduate engineering degree from either an accredited ABET curriculum or an internationally recognized program and meet one of the following (A, B, or C) admission requirement options:

- A. Pass the PE exam, or
- B. Have an undergraduate cumulative GPA of 3.00 or greater, or
- C. Have an undergraduate cumulative GPA of 2.50 or greater. and satisfy at least two of the following: (1) Pass the FE exam;
  - (2) Verbal GRE score of at least 145;
  - (3) quantitative GRE score at least 150; and/or
  - (4) analytical writing GRE score at least 3.0.
- Additionally, to be considered for admission, international students must have an iBT TOEFL score of at least 85. or a Paper-Based TOEFL score of at least 527.
- Students who do not meet admission requirement options A, B, or C arc welcome to apply, and their applications will be considered for admission on a case-by-case basis. The program admission recommendation will be decided by the M.S.E. degree program coordinator based on a combination of GRE scores and level of performance in undergraduate engineering coursework. Applicants who do not meet the above criteria but who do have an undergraduate engineering degree are welcome to apply as non-degree seeking students and take courses toward an M.S.E. degree. If a non-degree seeking student has at least a minimum cumulative graduate GPA of 3.30 in his or her first 9 credit hours of CITE M.S.E. courses, that student may re-apply to the university to be considered for admission to the M.S.E. degree program.
- Eligibility to take the PE exam is based primarily on completion of an ABET-accredited undergraduate engineering degree in most states. Completion of a M.S.E. graduate degree at an institution with an ABET-accredited undergraduate degree does not fulfill that requirement to take the PE exam.

### **Degree Requirements**

Each degree candidate is required to complete at least 30 -33-graduate credit hours, depending on the option chosen below (project, thesis, or coursework only), with a cumulative Grade Point Average of 3.0 for the courses included in the student's Plan of Study. At least one-half of the minimum required hours for the degree must be earned in classes numbered 600 or above.

Each degree-seeking student must file an approved Plan of Study, developed with a faculty advisor, before the student registers for the 12th credit hour. The Academic Regulations portion of the Graduate Catalog may be consulted for additional information.

A student may only earn the M.S.E. degree once. Therefore, students wishing to complete two of the three M.S.E. majors (*i.e.*, double major) must complete all requirements for both majors before the degree is awarded. A

maximum of 12 credit hours may be counted toward both majors, as approved by the student's academic advisor in each major. An option must be selected for each major and the two options are permitted to be different. However, each major must have its own comprehensive assessment (*i.e.*, comprehensive project, thesis, or comprehensive examination). For example, a single thesis and defense cannot satisfy the requirements for both majors.

Students may choose to complete either the project option, the thesis option, or the coursework only option after consultation with their academic advisors.

Project Option. The comprehensive project involves the application of coursework completed as part of the degree to a practical problem. Students will work with their advisors to identify an appropriate project and scope. Students must prepare a formal written report and deliver an oral presentation to a committee. Students register for TE 699, Comprehensive Project (3 hrs.) during the semester in which their project will be completed and presented, but preliminary work on the project may commence before that semester.

Thesis Option. The thesis option involves the completion of 6 hours of research (ENGR 682) under the direction of an advisor on an approved project. Students must summarize their work in the form of a formal, written document and successfully defend the thesis before a committee. Thesis work is typically conducted over two semesters.

Coursework Only Option. Students can complete <u>33-30</u> hours of coursework and then complete a comprehensive examination within the last two semesters of graduation to fulfill the requirements of their degree program. Examinations will be administered once per semester for all students.

### **MAJOR: Engineering Management**

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#### Coursework Only Option (33-30 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	e (see approved Engineering Management electives below)	<del>12</del> 9.hrs.

### **Project Option (30 hours)**

ourses		
620	Management of Technical Human Resources and Organizations	3 hrs.
660	Project Management	3 hrs.
668	Operations Management	3 hrs.
670	Seminar in Engineering Management	3 hrs.
675	Engineering Economics (or TM equivalent)	3 hrs.
694	Engineering Law	3 hrs.
610	Applied Statistics	3 hrs.
699	Comprehensive Project	3 hrs.
	660 668 670 675 694 610	<ul> <li>Management of Technical Human Resources and Organizations</li> <li>Project Management</li> <li>Operations Management</li> <li>Seminar in Engineering Management</li> <li>Engineering Economics (or TM equivalent)</li> <li>Engineering Law</li> <li>Applied Statistics</li> </ul>

6 hrs.

Elective courses (see approved Engineering Management electives below)

### Thesis Option (30 hours)

Required co	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.

## 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.

### **MAJOR:** Environmental Engineering

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Each Environmental Engineering major must have completed the Foundation Courses listed below (and their associated prerequisites), or their equivalents as approved by their advisor before being fully admitted. Until this requirement is satisfied, the student can only receive Provisional admission to the program. All other admission requirements must still be satisfied.

Foundation Courses: ENGR 318 Fluid Mechanics CE 331 Hydraulic Engineering CE 432 Water/Wastewater Treatment

Coursework Only Option. ( <del>33</del> - <u>30</u> hours) Required courses	
One of: ENGR 610, ENGR 620, or ME 601	3 hrs
ENVE 615 Environmental Chemistry	3 hrs
EIVVE 015 Environmental Chemistry	5 113
Three courses – one per category – from among the following six categories (1) Engineering Management: EM 660	9 hrs
(2) Water/Wastewater: ENVE 616 or ENVE 617	
(3) Solid/Hazardous Waste: ENVE 620 or ENVE 625	
(4) Air Pollution: ENVE 611, ENVE 612, ENVE 680, or ES 604	
(5) Hydraulics/Hydrology: ENVE 670, ENVE 671, or ENVE 672	
(6) Env. Remediation/Risk/Mgmt: ENVE 682, ES 514, ES 620	
(b) Env. Reinediators Risk Hight. Env E 002, E5 514, E5 020	
Elective courses (see approved Environmental Engineering electives below)	<del>18-<u>15</u> hrs</del>
Project Option. (30 hours)	
Required courses	
One of: ENGR 610, ENGR 620, or ME 601	3 hrs
ENVE 615 Environmental Chemistry	3 hrs
TE 699 Comprehensive Project	3 hrs
Three courses – one per category – from among the following six categories	9 hrs
(1) Engineering Management: EM 660	
(2) Water/Wastewater: ENVE 616 or ENVE 617	
(3) Solid/Hazardous Waste: ENVE 620 or ENVE 625	
(4) Air Pollution: ENVE 611, ENVE 612, ENVE 680, or ES 604	
(5) Hydraulics/Hydrology: ENVE 670, ENVE 671, or ENVE 672	
(6) Env. Remediation/Risk/Mgmt: ENVE 682, ES 514, ES 620	
Elective courses (see approved Environmental Engineering electives below)	12 hrs
Thesis Option. (30 hours)	
Required courses	
One of: ENGR 610, ENGR 620, or ME 601	3 hrs
ENVE 615 Environmental Chemistry	3 hrs
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ENGR	682	Research	6 hrs
Three cours	ses – on	e per category – from among the following six categories	9 hrs
(1) En	gineerin	ng Management: EM 660	
(2) W	ater/Wa	stewater: ENVE 616 or ENVE 617	
(3) So	lid/Haz	ardous Waste: ENVE 620 or ENVE 625	
(4) Ai	r Pollut	ion: ENVE 611, ENVE 612, ENVE 680, or ES 604	
(5) Hy	draulic	s/Hydrology: ENVE 670, ENVE 671, or ENVE 672	
		ediation/Risk/Mgmt: ENVE 682, ES 514, ES 620	
Elective	courses	s (see approved Environmental Engineering electives below)	9 hrs.
and the second se	ctive Co ENVE co	ourses for the Environmental Engineering Major	
-		sted above not already taken.	
ring c	ourse n	sted doore not anoualy taken.	

ES 550 Environmental Law ES 630 Environmental Site Assessment ES 640 Groundwater Principles and Monitoring Other courses approved in advance by the student's advisor.

### **MAJOR:** Transportation and Infrastructure Engineering

Each Transportation and Infrastructure Engineering major must have completed the Foundation Courses listed below (and their associated prerequisites), or their equivalents as approved by his or her advisor, before being fully admitted. Until this requirement is satisfied, the student can only receive Provisional admission to the program. All other admission requirements must still be satisfied.

### Foundation courses

Two (2) Elective Courses

682 Research

ENGR

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CE	312	Structural	Analysis

1010 (1) (1) 101

- CE 342 Transportation Engineering
- CE 413 Reinforced Concrete or CE 414 Steel Design

Students pursuing the Project Option or the Thesis Option must choose either Transportation Engineering or Structural Engineering as their primary focus. The other discipline will be the student's secondary focus. Three courses must be completed in the primary focus and two courses in the secondary focus for the Project and Thesis options. The Coursework Only Option requires three courses in both disciplines.

Coursework-Only Option (33-30 hours)	
ENGR 610 Applied Statistics or other Advisor-Approved MTH course	3 hrs.
EM 660 Project Management	3 hrs.
Three (3) Courses in Structural Engineering	9 hrs.
Three (3) Courses in Transportation Engineering	9 hrs.
Three (32) Elective Courses	9- <u>6</u> hrs.
Project Option (30 hours)	
ENGR 610 Applied Statistics or other Advisor-Approved MTH course	3 hrs.
Three (3) Courses in Primary Focus (Structural Engineering or Transportation Engineering	g) 9 hrs.
Two (2) Courses in Secondary Focus (Structural Engineering or Transportation Engineerin	ng) 6 hrs.
Three (3) Elective Courses	9 hrs.
ENGR 699 Comprehensive Project	3 hrs.
Thesis Option (30 hours)	
ENGR 610 Applied Statistics or other Advisor-Approved MTH course	3 hrs.
Three (3) Courses in Primary Focus (Structural Engineering or Transportation Engineering	g) 9 hrs.
Two (2) Courses in Secondary Focus (Structural Engineering or Transportation Engineerin	ng) 6 hrs.

6 hrs.

6 hrs.

## Structural Engineering Courses

ori accus			
CE	612	Structural Steel Design and Behavior	3 hrs.
CE	614	Advanced Reinforced Concrete Structure Design and Behavior	3 hrs.
CE	615	Finite Element Applications in Civil Engineering	3 hrs.
CE	616	Pre-stressed Concrete Design	3 hrs.
CE	618	Bridge Engineering	3 hrs.
Transpo	rtation E	ngineering Courses	
ĊE	534	Geometric Design of Highways	3 hrs.
CE	538	Pavement Design	3 hrs.
CE	634	Traffic Engineering	3 hrs.
CE	635	Evaluation of Transportation Systems	3 hrs.
CE	636	Transportation Planning	3 hrs.
CE	637	Highway Safety Engineering	3 hrs.

## Approved Elective Courses for the Transportation and Infrastructure Engineering Major

Any Transportation Engineering or Structural Engineering course not already taken. Any ENVE (Environmental Engineering) course approved in advance by the student's advisor. Any EM (Engineering Management) course approved in advance by the student's advisor. Other courses approved in advance by the student's advisor.

## **CLEANED UP NEW CATALOG DESCRIPTION**

## **ENGINEERING, M.S.**

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## Majors Engineering Management Environmental Engineering Transportation and Infrastructure Engineering.

### **Program Description**

The M.S. in Engineering (M.S.E.) program is an interdisciplinary engineering program designed to meet the specific needs of engineers employed in industry, government, and consulting, as well as those desiring a traditional research-based graduate degree. The program offers a broad core curriculum with opportunities for concentrated study in three majors: Engineering Management, Environmental Engineering, and Transportation and Infrastructure Engineering.

### **Admission Requirements**

Applicants should follow the admissions process described in this catalog or at the Graduate Admissions website: www.marshall.edu/graduate/admissions/how-to-apply-for-admission. Each applicant for admission to the M.S. in Engineering degree program must have an undergraduate engineering degree from either an accredited ABET curriculum or an internationally recognized program and meet one of the following (A, B, or C) admission requirement options:

- A. Pass the PE exam, or
- B. Have an undergraduate cumulative GPA of 3.00 or greater, or
- C. Have an undergraduate cumulative GPA of 2.50 or greater. and satisfy at least two of the following: (1) Pass the FE exam;
  - (2) Verbal GRE score of at least 145;
  - (3) quantitative GRE score at least 150; and/or
  - (4) analytical writing GRE score at least 3.0.

Additionally, to be considered for admission, international students must have an iBT TOEFL score of at least 85. or a Paper-Based TOEFL score of at least 527.

- Students who do not meet admission requirement options A, B, or C arc welcome to apply, and their applications will be considered for admission on a case-by-case basis. The program admission recommendation will be decided by the M.S.E. degree program coordinator based on a combination of GRE scores and level of performance in undergraduate engineering coursework. Applicants who do not meet the above criteria but who do have an undergraduate engineering degree are welcome to apply as non-degree seeking students and take courses toward an M.S.E. degree. If a non-degree seeking student has at least a minimum cumulative graduate GPA of 3.30 in his or her first 9 credit hours of CITE M.S.E. courses, that student may re-apply to the university to be considered for admission to the M.S.E. degree program.
- Eligibility to take the PE exam is based primarily on completion of an ABET-accredited undergraduate engineering degree in most states. Completion of a M.S.E. graduate degree at an institution with an ABET-accredited undergraduate degree does not fulfill that requirement to take the PE exam.

### **Degree Requirements**

Each degree candidate is required to complete at least 30graduate credit hours, depending on the option chosen below (project, thesis, or coursework only), with a cumulative Grade Point Average of 3.0 for the courses included in the student's Plan of Study. At least one-half of the minimum required hours for the degree must be earned in classes numbered 600 or above.

Each degree-seeking student must file an approved Plan of Study, developed with a faculty advisor, before the student registers for the 12th credit hour. The Academic Regulations portion of the Graduate Catalog may be consulted for additional information.

A student may only earn the M.S.E. degree once. Therefore, students wishing to complete two of the three M.S.E. majors (*i.e.*, double major) must complete all requirements for both majors before the degree is awarded. A

maximum of 12 credit hours may be counted toward both majors, as approved by the student's academic advisor in each major. An option must be selected for each major and the two options are permitted to be different. However, each major must have its own comprehensive assessment (*i.e.*, comprehensive project, thesis, or comprehensive examination). For example, a single thesis and defense cannot satisfy the requirements for both majors.

Students may choose to complete either the project option, the thesis option, or the coursework only option after consultation with their academic advisors.

Project Option. The comprehensive project involves the application of coursework completed as part of the degree to a practical problem. Students will work with their advisors to identify an appropriate project and scope. Students must prepare a formal written report and deliver an oral presentation to a committee. Students register for TE 699, Comprehensive Project (3 hrs.) during the semester in which their project will be completed and presented, but preliminary work on the project may commence before that semester.

Thesis Option. The thesis option involves the completion of 6 hours of research (ENGR 682) under the direction of an advisor on an approved project. Students must summarize their work in the form of a formal, written document and successfully defend the thesis before a committee. Thesis work is typically conducted over two semesters.

Coursework Only Option. Students complete 30 hours of coursework and then complete a comprehensive examination within the last two semesters of graduation to fulfill the requirements of their degree program. Examinations will be administered once per semester for all students.

### **MAJOR: Engineering Management**

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#### Coursework Only Option (30 hours) Required courses

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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.
<b>Project Option</b>	i (30 ha	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.
TE	699	Comprehensive Project	3 hrs.
Elective	courses	(see approved Engineering Management electives below)	6 hrs.
Thesis Option Required c		ırs)	

egan ea e	Var beb		
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.

### 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.

## **MAJOR: Environmental Engineering**

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Each Environmental Engineering major must have completed the Foundation Courses listed below (and their associated prerequisites), or their equivalents as approved by their advisor before being fully admitted. Until this requirement is satisfied, the student can only receive Provisional admission to the program. All other admission requirements must still be satisfied.

Foundation Courses:			
ENGR 318 Fluid Mechanics			
CE 331 Hydraulic Engineering			
CE 432 Water/Wastewater Treatment			

# Coursework Only Option. (30 hours)

Required courses	
One of: ENGR 610, ENGR 620, or ME 601	3 hrs
ENVE 615 Environmental Chemistry	3 hrs
Three courses – one per category – from among the following six categories	9 hrs
(1) Engineering Management: EM 660	
(2) Water/Wastewater: ENVE 616 or ENVE 617	
(3) Solid/Hazardous Waste: ENVE 620 or ENVE 625	
(4) Air Pollution: ENVE 611, ENVE 612, ENVE 680, or ES 604	
(5) Hydraulics/Hydrology: ENVE 670, ENVE 671, or ENVE 672	
(6) Env. Remediation/Risk/Mgmt: ENVE 682, ES 514, ES 620	
Elective courses (see approved Environmental Engineering electives below)	15 hrs
Project Option. (30 hours)	
Required courses	
One of: ENGR 610, ENGR 620, or ME 601	3 hrs
ENVE 615 Environmental Chemistry	3 hrs
TE 699 Comprehensive Project	3 hrs
Three courses – one per category – from among the following six categories	9 hrs
(1) Engineering Management: EM 660	
(2) Water/Wastewater: ENVE 616 or ENVE 617	
(3) Solid/Hazardous Waste: ENVE 620 or ENVE 625	
(4) Air Pollution: ENVE 611, ENVE 612, ENVE 680, or ES 604	
(5) Hydraulics/Hydrology: ENVE 670, ENVE 671, or ENVE 672	
(6) Env. Remediation/Risk/Mgmt: ENVE 682, ES 514, ES 620	
Elective courses (see approved Environmental Engineering electives below)	12 hrs
Thesis Option. (30 hours)	
Required courses	
One of: ENGR 610, ENGR 620, or ME 601	3 hrs
ENVE 615 Environmental Chemistry	3 hrs

3 hrs.

ENGR 682 Research	6 hrs
Three courses – one per category – from among the following six categories	9 hrs
(1) Engineering Management: EM 660	
(2) Water/Wastewater: ENVE 616 or ENVE 617	
(3) Solid/Hazardous Waste: ENVE 620 or ENVE 625	
(4) Air Pollution: ENVE 611, ENVE 612, ENVE 680, or ES 604	
(5) Hydraulics/Hydrology: ENVE 670, ENVE 671, or ENVE 672	
(6) Env. Remediation/Risk/Mgmt: ENVE 682, ES 514, ES 620	
Elective courses (see approved Environmental Engineering electives below)	9 hrs.
Approved Elective Courses for the Environmental Engineering Major	
Any ENVE course.	

Any course listed above not already taken. ES 550 Environmental Law ES 630 Environmental Site Assessment ES 640 Groundwater Principles and Monitoring Other courses approved in advance by the student's advisor.

### **MAJOR:** Transportation and Infrastructure Engineering

Each Transportation and Infrastructure Engineering major must have completed the Foundation Courses listed below (and their associated prerequisites), or their equivalents as approved by his or her advisor, before being fully admitted. Until this requirement is satisfied, the student can only receive Provisional admission to the program. All other admission requirements must still be satisfied.

#### Foundation courses

101

CE	312	Structural	Analy	reie
	512	Suucial	Allary	1212

Coursework-Only Option (30 hours)

- CE 342 Transportation Engineering
- CE 413 Reinforced Concrete or CE 414 Steel Design

Students pursuing the Project Option or the Thesis Option must choose either Transportation Engineering or Structural Engineering as their primary focus. The other discipline will be the student's secondary focus. Three courses must be completed in the primary focus and two courses in the secondary focus for the Project and Thesis options. The Coursework Only Option requires three courses in both disciplines.

Coursenor		option (bo nours)	
ENGR	610	Applied Statistics or other Advisor-Approved MTH course	3 hrs
EM	660	Project Management	3 hrs
Three (3)	) Course	es in Structural Engineering	9 hrs
Three (3)	) Course	es in Transportation Engineering	9 hrs
Two (2	) Electiv	ve Courses	6 hrs
Project Op	otion (3	0 hours)	
ENGR	610	Applied Statistics or other Advisor-Approved MTH course	3 hrs
Three (3)	) Course	es in Primary Focus (Structural Engineering or Transportation Engineering)	9 hrs
Two (2)	Courses	in Secondary Focus (Structural Engineering or Transportation Engineering)	6 hrs
		ve Courses	9 hrs
ENGR	699	Comprehensive Project	3 hrs
Thesis Op	tion (30	hours)	
ENGR	610	Applied Statistics or other Advisor-Approved MTH course	3 hrs

LINOK	010	Applied Statistics of other Advisor-Apploved with Course	J 111 5.
Three (3)	Cours	es in Primary Focus (Structural Engineering or Transportation Engineering)	9 hrs.
Two (2)	Courses	in Secondary Focus (Structural Engineering or Transportation Engineering)	6 hrs.
Two (2)	Elective	Courses	6 hrs.
ENGR	682	Research	6 hrs.
	Three (3) Two (2) Two (2)	Three (3) Courses Two (2) Courses Two (2) Elective	Three (3) Courses in Primary Focus (Structural Engineering or Transportation Engineering) Two (2) Courses in Secondary Focus (Structural Engineering or Transportation Engineering) Two (2) Elective Courses

## Structural Engineering Courses

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	B		
CE	612	Structural Steel Design and Behavior	3 hrs.
CE	614	Advanced Reinforced Concrete Structure Design and Behavior	3 hrs.
CE	615	Finite Element Applications in Civil Engineering	3 hrs.
CE	616	Pre-stressed Concrete Design	3 hrs.
CE	618	Bridge Engineering	3 hrs.
Transpor	tation E	ingineering Courses	
ČE	534	Geometric Design of Highways	3 hrs.
CE	538	Pavement Design	3 hrs.
CE	634	Traffic Engineering	3 hrs.
CE	635	Evaluation of Transportation Systems	3 hrs.
CE	636	Transportation Planning	3 hrs.
CE	637	Highway Safety Engineering	3 hrs.

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## Approved Elective Courses for the Transportation and Infrastructure Engineering Major

Any Transportation Engineering or Structural Engineering course not already taken. Any ENVE (Environmental Engineering) course approved in advance by the student's advisor. Any EM (Engineering Management) course approved in advance by the student's advisor. Other courses approved in advance by the student's advisor.

GC#9: Non-Curricular

## **Request for Graduate Non-Curricular Changes**

PLEASE USE THIS FORM FOR ALL NON-CURRICULAR CHANGE REQUESTS (changes in admission requirements or requirements for graduation, changes in existing or new policies/procedures, changes in program descriptions in catalog, general language changes in catalog).

SIGNATURES may not be required, depending on the nature of the request and from where it originates. Consult Graduate Council Chair.

- 1. Prepare one paper copy with all signatures and supporting material and forward to the Graduate Council Chair.
- 2. E-mail one identical PDF copy 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.

	Dept/Division: Engineering	
Contact Person: Eldon R. Larsen	Phone: 6-2047	

Rationale for Request:

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There is no change in our admissions policy or practice. The Admissions Office just asked us to clarify the wording a little. The wording change presented here has been agreed upon by the M.S. in Engineering Degree Program Coordinator, the Graduate Dean, and the Director of Admissions.

Signatures: if disapproved at any level, do not sign. Return to previous signer with recommendation attached. NOTE: all requests may not require all signatures.

Department/Division Chair	Date 1/23/17
Registrar Smich . Car	Date 1/25/17
	Date 1/25/17
College Curriculum Committee Chair(or Dean if no college curriculum committee)	Dule
Graduate Council Chair Christopew	Date

NOTE: please complete information required on the following pages before obtaining signatures above.

1. Current Catalog Description (if applicable): Please insert the catalog description from the current catalog for entries you would like to change.

...Applicants who do not meet the above criteria but who do have an undergraduate engineering degree are welcome to apply as non-degree seeking students and take courses toward an M.S.E. degree. If a non-degree seeking student has at least a minimum cumulative graduate GPA of 3.30 in his or her first 9 credit hours of CITE M.S.E. courses, that student may re-apply to the university to be considered for admission to the M.S.E. degree program.

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## **Request for Graduate Non-Curricular Changes – Page 3**

 Edits to current description: Attach or insert 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.

New Language (Both sentences have been re-written):

...A current non degree or degree seeking MU student, who holds an undergraduate engineering degree, may apply to be considered for admission to the M.S.E. degree program if s/he has at least a minimum cumulative graduate GPA of 3.30 in his or her first 9 credit hours of MU CITE M.S.E. courses. For international students, the English requirements stated above must still be satisfied.

### Old Language:

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...Applicants who do not meet the above criteria but who do have an undergraduate engineering degree are welcome to apply as non-degree seeking students and take courses toward an M.S.E. degree. If a non-degree seeking student has at least a minimum cumulative graduate GPA of 3.30 in his or her first 9 credit hours of CITE M.S.E. courses, that student may re-apply to the university to be considered for admission to the M.S.E. degree program.

## **Request for Graduate Non-Curricular Changes – Page 4**

3. **New Catalog Description**: Provide a "clean" copy of your proposed description without strikethroughs or highlighting. This should be what you are proposing for the new description.

...A current non degree or degree seeking MU student, who holds an undergraduate engineering degree, may apply to be considered for admission to the M.S.E. degree program if s/he has at least a minimum cumulative graduate GPA of 3.30 in his or her first 9 credit hours of MU CITE M.S.E. courses. For international students, the English requirements stated above must still be satisfied.

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## **Request for Graduate Non-Curricular Changes – Page 5**

Please insert below your proposed change information for the Graduate Council agenda.

Type of change request: Clarification of part of admissions language.

Department: Engineering

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Degree program: M.S.E. (M.S. in Engineering)

Effective date (fall/spring/summer, year): Summer 2017

# Request for Graduate Addition, Deletion, or Change of a Certificate

<ol> <li>Prepare one paper copy with all signatures and supporting material and forward to the Graduate Council Chair.</li> <li>E-mail one identical PDF copy to the Graduate Council Chair. If attachments included, please merge into a single file.</li> <li>The Graduate Council cannot process this application until it has received both the PDF copy and the signed hard copy.</li> </ol> NOTE: If proposing a new certificate, please read this first: www.marshall.edu/graduate/graduate/council/certificatespolicy/certificatepolicy.pdf			
College: COLA Dept/Division: History			
Contact Person: Robert Deal Phone	: 304-696-2721		
Name of Certificate Graduate Certificate in Public History			
Check action requested: Addition Deletion Change			
Effective Term/Year Fall 20 17 Spring 20 Summer 20			
Information on the following pages must be completed before signatures are obtained.			
Signatures: if disapproved at any level, do not sign. Return to previous signer with recommendation	on attached.		
Dept. Chair/Division Head	Date 1/25/17		
College Curriculum Chair	Date 2/20/17		
College Dean	Date		
Graduate Council Chair Christofew	Date		
Provost/VP Academic Affairs	Date		
Presidential Approval	Date		

Please provide a rationale for addition, deletion, change:

The History Department wishes to drop the GRE requirement for the Public History certificate as we believe that this information is not necessary in assessing candidates for this certificate. The personal statement that we are by a separate form presently requesting be added to our M.A. requirements is also not needed in assessing applicants for the Public History certificate. The History Department believes that this change will result in more applicants for the Public History certificate.

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.

NONE

**1. ADDITIONAL RESOURCE REQUIREMENTS**: If your program requires additional faculty, equipment or specialized materials to ADD or CHANGE this certificate, 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 the attached sheet setting forth the relevant material from page 171 of the 2016-2017 Graduate Catalog.

## 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.

## 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).

## Graduate Certificate in Public History

This is an interdisciplinary program housed in Marshall University's History department. The program will combine practical coursework with field experiences and draws upon the faculty and resources of five graduate programs to prepare the student for career opportunities in museums, historic homes, libraries, archives, state and national parks and for local, state and federal governmental agencies.

### Admission Requirements

• The admissions requirements are the same as for the History Master's degree except that neither a personal statement nor Graduate Record Examination (GRE) scores are required.

• Prospective certificate-only students should apply for admission to Marshall University as a Certificate/Professional Development student and select the Public History Certificate on the application form.

• Applicants should follow the admissions process described in the Graduate Catalog, or at the Graduate Admissions website at www. marshall.edu/graduate/admissions/how-to-apply-for-admission.

• Students already enrolled in the History master's program who wish to earn the certificate simultaneously can apply easily by submitting a Secondary Program Request form.

All materials should be submitted to the Graduate Admissions office.

Graduate Catalog 2016-2017, page 171

## Graduate Certificate in Public History

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All materials should be submitted to the Graduate Admissions office.

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: Name of Certificate: Credit Hours: Type of Change: (addition, deletion, change) Rationale:

Department: History Name of Certificate: Graduate Certificate in Public History Credit Hours: 18 Type of Change: Change Rationale: The History Department wishes to drop the GRE

Rationale: The History Department wishes to drop the GRE requirement for the Public History certificate as we believe that this information is not necessary in assessing candidates for this certificate. The personal statement that we are by a separate form presently requesting be added to our M.A. requirements is also not needed in assessing applicants for the Public History certificate. The History Department believes that this change will result in more applicants for the Public History certificate.