

Request for Graduate Course Addition

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. If attachments included, please merge into a single file.
3. **The Graduate Council cannot process this application until it has received both the PDF copy and the signed hard copy.**

College: MedicineDept/Division: Biomedical SciencesAlpha Designator/Number: BMS 601 Graded CR/NCContact Person: Todd L. Green, Ph.D.Phone: 304-696-3531**NEW COURSE DATA:**New Course Title: Introduction to Nucleic Acids and Proteins

Alpha Designator/Number:

B	M	S		6	0	1			
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Title Abbreviation:

I	N	T	R	O		D	N	A	,		R	N	A		&		P	R	O	T	E	I	N	S
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(Limit of 25 characters and spaces)

Course Catalog Description:
(Limit of 30 words)A molecular and cell biological study of the structure and function of nucleic acids and proteins.

Co-requisite(s): _____

First Term to be Offered: Fall 2015Prerequisite(s): Consent of instructorCredit Hours: 3

Course(s) being deleted in place of this addition (must submit course deletion form): _____

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

Dept. Chair/Division Head <u>Todd L. Green</u>	Date <u>1/16/15</u>
Registrar <u>Debra Ferguson</u> 269999	Date <u>1/16/15</u>
College Curriculum Chair <u>Todd L. Green</u>	Date <u>1/16/15</u>
Graduate Council Chair <u>Christofero</u>	Date <u>3/30/15</u>

Request for Graduate Course Addition - Page 2

College: Medicine

Department/Division: Biomedical Sciences

Alpha Designator/Number: BMS 601

Provide complete information regarding the new course addition for each topic listed below. Before routing this form, a complete syllabus also must be attached addressing the items listed on the first page of this form.

1. FACULTY: Identify by name the faculty in your department/division who may teach this course.

Todd Green, Beverly Delidow, Emine Koc, Vincent Sollars, Donald Primerano

2. DUPLICATION: If a question of possible duplication occurs, attach a copy of the correspondence sent to the appropriate department(s) describing the proposal. Enter "**Not Applicable**" if not applicable.

Not applicable

3. REQUIRED COURSE: If this course will be required by another department(s), identify it/them by name. Enter "**Not Applicable**" if not applicable.

Not applicable

4. AGREEMENTS: If there are any agreements required to provide clinical experiences, attach the details and the signed agreement. Enter "**Not Applicable**" if not applicable.

Not applicable

5. ADDITIONAL RESOURCE REQUIREMENTS: If your department requires additional faculty, equipment, or specialized materials to teach this course, 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 "**Not Applicable**" if not applicable.

Not applicable

6. COURSE OBJECTIVES: (May be submitted as a separate document)

Listed on course syllabus (attached).

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7. COURSE OUTLINE (May be submitted as a separate document)

Listed on course syllabus (attached).

8. SAMPLE TEXT(S) WITH AUTHOR(S) AND PUBLICATION DATES (May be submitted as a separate document)

Listed on course syllabus (attached).

9. EXAMPLE OF INSTRUCTIONAL METHODS (Lecture, lab, internship)

lecture, large group discussion, small group discussion

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10. EXAMPLE EVALUATION METHODS (CHAPTER, MIDTERM, FINAL, PROJECTS, ETC.)

Exams - multiple-choice, essay, fill-in-the-blank, matching, short answer

Homework - problem-solving

11. ADDITIONAL GRADUATE REQUIREMENTS IF LISTED AS AN UNDERGRADUATE/GRADUATE COURSE

Not applicable

12. PROVIDE COMPLETE BIBLIOGRAPHY (May be submitted as a separate document)

Alberts et al., *Molecular Biology of the Cell*, 6th edition, Garland

Cooper and Hausman, *The Cell - A Molecular Approach*, 6th edition, Sinauer

Lewin, *Cells*, 3rd edition, Jones & Bartlett

Berg, Tymoczko, & Stryer; *Biochemistry*, 7th edition, Freeman

Murray et al., *Harper's Illustrated Biochemistry*, 29th edition, McGraw-Hill

Request for Graduate Course Addition - Page 5

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

Department:
Course Number and Title:
Catalog Description:
Prerequisites:
First Term Offered:
Credit Hours:

Department: Biomedical Sciences
Course Number and Title: BMS 601, Introduction to Nucleic Acids and Proteins
Catalog Description: A molecular and cell biological study of the structure and function of nucleic acids and proteins.
Prerequisites: Consent of instructor
First Term Offered: Fall 2015
Credit Hours: 3

INTRODUCTION TO NUCLEIC ACIDS AND PROTEINS
BMS 601
Fall 2015

COURSE POLICY

Course Director:

Todd L. Green, Ph.D.

Office: BSC 301C

Phone: 696-3531

Fax: 696-7272

E-mail: green@marshall.edu

Required Textbooks

Lehninger Principles of Biochemistry, 6th Edition, Nelson and Cox, W.H. Freeman and Company, New York, 2013.

Molecular Cell Biology, 7th Edition, Lodish et al., W.H. Freeman and Company, New York, 2012.

Textbooks are available at the Marshall University Bookstore. There are companion websites at <http://bcs.whfreeman.com/lehninger> and <http://bcs.whfreeman.com/lodish7e>.

Classes

BMS 601 is a 3 credit hour course. Classes will be held from 1:00 - 2:50 PM on Mondays, Wednesdays and Fridays in Room 102 at the Biotechnology Science Center (BSC). While not required, attendance at all classes is strongly recommended. There is a possibility that there will be changes in the course schedule. You will be notified in advance if any changes occur.

Examinations

Three examinations will be given in this course, each during regularly scheduled class time. Only under **truly exceptional circumstances** will a student be permitted to take an examination at a time other than during the scheduled examination period. Exceptional circumstances include: death or serious illness in the immediate family, childbirth, illness requiring hospitalization and illness serious enough to warrant a written dispensation from a physician. Minor illnesses are **NOT** exceptional circumstances. A written doctor's excuse stating the nature of the illness will be required. If arrangements have not been made beforehand, the student **MUST** contact the course director within 24 hours after the scheduled exam period to discuss rescheduling the exam.

The format of each exam will consist of 50% multiple-choice and 50% of one or more of the following – essay, fill-in-the-blank, matching and short answer.

There will be available on MUOnline quizzes consisting of 2-3 short multiple-choice questions on each week's material to help in learning.

Homework

There will homework assignments throughout the course for a total of **40 points**.

Grades

Student performance is based on the scores achieved on three block exams and the homework. There is no cumulative final. The block exams will be based on 10 points/lecture. There are 36 lectures in the course. The point totals for each exam are as follows.

Exam 1	12 lectures	120 points
Exam 2	12 lectures	120 points
Exam 3	12 lectures	120 points
	36 lectures	360 points

Grades are calculated on a straight percentage scale, based on a total of **400 points (exams = 360 points, homework = 40 points)**. Final letter grades will be assigned as follows based upon the average percentage obtained on the three exams and the homework assignments. Grades will be posted on MUOnline as soon as reasonably possible after each exam.

A	90-100%
B	80-89%
C	70-79%
D	60-69%
F	Below 60%

Class Policies

By enrolling in this course, you agree to abide by the University policies listed below. Please read the full text of each policy by going to <http://www.marshall.edu/academic-affairs> and clicking on "Marshall University Policies".

Academic Dishonesty

Academic dishonesty will not be tolerated. Policy AA-12 defines academic dishonesty and describes the sanctions associated with it.

Inclement Weather

Policy GA-9 describes the policy on weather-related and/or emergency closings and delays. As this is an afternoon class, we will not be affected by delays. To find out if the University is closed, please call Audix at 696-6245.

Students with Disabilities Policy

Students with disabilities are required to prepare a notice either from the Help Center, Myers Hall, or Sandra Clements, PH 117, before a special accommodation can be honored. The link describing this policy is <http://www.marshall.edu/disabled>.

University Computing Services Acceptable Use Policy

MUBOG Policy IT-1 explains this policy (<http://www.marshall.edu/president/board/policies.html>).

Cell Phone Use

Cell phone use, including texting, will not be tolerated in the class, unless authorized by the instructor. If special circumstances exist such that a student needs to be in communication with family members or friends during a class, please inform the instructor before the class begins. Permission will be granted on a case-by-case basis and at the sole discretion of the instructor. If a student persists in using cell phones, including texting, after they have been asked to stop, the student will be removed from the class.

Course Objectives

After completing this course, students should have a thorough understanding of the biochemistry, metabolism and structure of cells, and the molecular mechanisms that determine the function of cells. The student should be able to describe:

- 1) How the chemistry of pH is determined and how buffers are used.
- 2) The chemistry of amino acids and proteins and the structure of proteins.
- 3) How enzymes function.
- 4) The structure of DNA and how it is replicated and repaired in cells.
- 5) How expression of genes is regulated.
- 6) How proteins are translated, processed and modified.
- 7) Basic techniques for studying DNA, RNA, and proteins.

Student Learning Outcomes	How Outcome Will Be Practice	How Outcome Will Be Assessed
Know how to measure pH and use buffers correctly.	In-class discussion, Online quizzes	Exam questions, Homework
Know the chemistry of amino acids and the structure of proteins.	In-class discussion, Online quizzes	Exam questions, Homework
Know the structure and function of enzymes.	In-class discussion, Online quizzes	Exam questions, Homework
Know the structure of nucleotides and DNA.	In-class discussion, Online quizzes	Exam questions, Homework
Know how DNA is replicated and repaired.	In-class discussion, Online quizzes	Exam questions, Homework
Know how gene expression is regulated.	In-class discussion, Online quizzes	Exam questions, Homework
Know how proteins are translated, processed, and modified.	In-class discussion, Online quizzes	Exam questions, Homework
Analyze and assess basic techniques for studying DNA, RNA, and protein.	In-class discussion, Online quizzes	Exam questions, Homework

BMS 601 2015 LECTURE SCHEDULE
MWF 1:00 – 2:50 PM

			CHEMICAL & MOLECULAR FOUNDATIONS	
1	Monday	August 24	Molecules of Life	
2			pH	
3	Wednesday	August 26	Bioenergetics 1	
4			Bioenergetics 2	
5	Friday	August 28	Amino Acid & Protein Chemistry 1	
6			Amino Acid & Protein Chemistry 2	
7	Monday	August 31	Amino Acid & Protein Chemistry 3	
8			Enzymes 1	
9	Wednesday	September 2	How to Read a Research paper	
10			Bioinformatics - PubMed	
11	Friday	September 4	Enzymes 2	
12			Enzymes 3	
	Monday	September 7	LABOR DAY HOLIDAY	
13	Wednesday	September 9	Enzymes 4	
14			Enzymes 5	
			GENETICS & MOLECULAR BIOLOGY	
15	Friday	September 11	Nucleotides and Nucleic Acids	
16			Nucleotide Metabolism	
	Monday	September 14	EXAM 1 (Lectures 1-12)	
17	Wednesday	September 16	DNA Structure	
18			DNA Replication	
19	Friday	September 18	DNA Repair	
20			DNA Techniques - preps, quantitation	
21	Monday	September 21	RNA Synthesis & Prokaryotic Transcription	
22			Eukaryotic Transcription Initiation Control	
23	Wednesday	September 23	Eukaryotic Transcription Factors	
24			RNA Processing	

25	Friday	September 25	Nucleus - structure and transport	
26			RNA Techniques - preps, northern	
27	Monday	September 28	Epigenetics	
28			Non-coding RNAs	
	Wednesday	September 30	EXAM 2 (Lectures 13-24)	
29	Friday	October 2	PCR	
30			Real-time PCR	
31	Monday	October 5	Translation	
32			Translation	
33	Wednesday	October 7	Protein Modification and Degradation	
34			Protein Chaperones	
35	Friday	October 9	Protein techniques - westerns	
36			Immunological techniques - ELISAs	
	Monday	October 12	EXAM 3 (Lectures 25-36)	

Request for Graduate Course Addition

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2. E-mail one identical PDF copy to the Graduate Council Chair. If attachments included, please merge into a single file.
3. **The Graduate Council cannot process this application until it has received both the PDF copy and the signed hard copy.**

College: Medicine Dept/Division: Biomedical Sciences Alpha Designator/Number: BMS 602 Graded CR/NC

Contact Person: Todd L. Green, Ph.D. Phone: 304-696-3531

NEW COURSE DATA:

New Course Title: Introduction to Cell Structure and Metabolism

Alpha Designator/Number:

B	M	S		6	0	2			
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Title Abbreviation:

I	N	T	R	O		C	E	L	L	S		&		M	E	T	A	B	O	L	I	S	M
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(Limit of 25 characters and spaces)

Course Catalog Description: A molecular and cell biological study of the structure of cells and of cellular metabolism.
(Limit of 30 words)

Co-requisite(s): _____ First Term to be Offered: Fall 2015

Prerequisite(s): BMS 601 and consent of inst ^(concurrent prerequisite) AS Credit Hours: 3

Course(s) being deleted in place of this addition (must submit course deletion form): _____

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

Dept. Chair/Division Head <u>Todd L. Green</u>	Date <u>1/16/15</u>
Registrar <u>Roberta Ferguson</u> 269999	Date <u>1/16/15</u>
College Curriculum Chair <u>Todd L. Green</u>	Date <u>1/16/15</u>
Graduate Council Chair <u>T. Christofero</u>	Date <u>3/30/15</u>

Request for Graduate Course Addition - Page 2

College: Medicine

Department/Division: Biomedical Sciences

Alpha Designator/Number: BMS 602

Provide complete information regarding the new course addition for each topic listed below. Before routing this form, a complete syllabus also must be attached addressing the items listed on the first page of this form.

1. FACULTY: Identify by name the faculty in your department/division who may teach this course.

Todd Green, Elaine Hardman, William McCumbee

2. DUPLICATION: If a question of possible duplication occurs, attach a copy of the correspondence sent to the appropriate department(s) describing the proposal. Enter "**Not Applicable**" if not applicable.

Not applicable

3. REQUIRED COURSE: If this course will be required by another department(s), identify it/them by name. Enter "**Not Applicable**" if not applicable.

Not applicable

4. AGREEMENTS: If there are any agreements required to provide clinical experiences, attach the details and the signed agreement. Enter "**Not Applicable**" if not applicable.

Not applicable

5. ADDITIONAL RESOURCE REQUIREMENTS: If your department requires additional faculty, equipment, or specialized materials to teach this course, 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 "**Not Applicable**" if not applicable.

Not applicable

6. COURSE OBJECTIVES: (May be submitted as a separate document)

Listed on course syllabus (attached).

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7. COURSE OUTLINE (May be submitted as a separate document)

Listed on course syllabus (attached).

8. SAMPLE TEXT(S) WITH AUTHOR(S) AND PUBLICATION DATES (May be submitted as a separate document)

Listed on course syllabus (attached).

9. EXAMPLE OF INSTRUCTIONAL METHODS (Lecture, lab, internship)

lecture, large group discussion, small group discussion

Request for Graduate Course Addition - Page 4

10. EXAMPLE EVALUATION METHODS (CHAPTER, MIDTERM, FINAL, PROJECTS, ETC.)

Exams - multiple-choice, essay, fill-in-the-blank, matching, short answer

Homework - problem-solving

11. ADDITIONAL GRADUATE REQUIREMENTS IF LISTED AS AN UNDERGRADUATE/GRADUATE COURSE

Not applicable

12. PROVIDE COMPLETE BIBLIOGRAPHY (May be submitted as a separate document)

Alberts et al., *Molecular Biology of the Cell*, 6th edition, Garland

Cooper and Hausman, *The Cell - A Molecular Approach*, 6th edition, Sinauer

Lewin, *Cells*, 3rd edition, Jones & Bartlett

Berg, Tymoczko, & Stryer; *Biochemistry*, 7th edition, Freeman

Murray et al., *Harper's Illustrated Biochemistry*, 29th edition, McGraw-Hill

Request for Graduate Course Addition - Page 5

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

Department:
Course Number and Title:
Catalog Description:
Prerequisites:
First Term Offered:
Credit Hours:

Department: Biomedical Sciences
Course Number and Title: BMS 602, Introduction to Cell Structure and Metabolism
Catalog Description: A molecular and cell biological study of the structure of cells and of cellular metabolism.
Prerequisites: BMS 601 and consent of instructor
First Term Offered: Fall 2015
Credit Hours: 3

**INTRODUCTION TO CELL STRUCTURE AND METABOLISM
BMS 602
Fall 2015**

COURSE POLICY

Course Director:

Todd L. Green, Ph.D.

Office: BSC 301C

Phone: 696-3531

Fax: 696-7272

E-mail: green@marshall.edu

Required Textbooks

Lehninger Principles of Biochemistry, 6th Edition, Nelson and Cox, W.H. Freeman and Company, New York, 2013.

Molecular Cell Biology, 7th Edition, Lodish et al., W.H. Freeman and Company, New York, 2012.

Textbooks are available at the Marshall University Bookstore. There are companion websites at <http://bcs.whfreeman.com/lehninger> and <http://bcs.whfreeman.com/lodish7e>.

Classes

BMS 602 is a 3 credit hour course. Classes will be held from 1:00 - 2:50 PM on Mondays, Wednesdays and Fridays in Room 102 at the Biotechnology Science Center (BSC). While not required, attendance at all classes is strongly recommended. There is a possibility that there will be changes in the course schedule. You will be notified in advance if any changes occur.

Examinations

Three examinations will be given in this course, each during regularly scheduled class time. Only under **truly exceptional circumstances** will a student be permitted to take an examination at a time other than during the scheduled examination period. Exceptional circumstances include: death or serious illness in the immediate family, childbirth, illness requiring hospitalization and illness serious enough to warrant a written dispensation from a physician. Minor illnesses are **NOT** exceptional circumstances. A written doctor's excuse stating the nature of the illness will be required. If arrangements have not been made beforehand, the student **MUST** contact the course director within 24 hours after the scheduled exam period to discuss rescheduling the exam.

The format of each exam will consist of 50% multiple-choice and 50% of one or more of the following – essay, fill-in-the-blank, matching and short answer.

There will be available on MUOnline quizzes consisting of 2-3 short multiple-choice questions on each week's material to help in learning.

Homework

There will homework assignments throughout the course for a total of **65 points**.

Grades

Student performance is based on the scores achieved on three block exams and the homework. There is no cumulative final. The block exams will be based on 10 points/lecture. There are 36 lectures in the course. The point totals for each exam are as follows.

Exam 1	12 lectures	120 points
Exam 2	10 lectures	100 points
Exam 3	14 lectures	140 points
	36 lectures	360 points

Grades are calculated on a straight percentage scale, based on a total of **425 points (exams = 360 points, homework = 65 points)**. Final letter grades will be assigned as follows based upon the average percentage obtained on the three exams and the homework. Grades will be posted on MUOnline as soon as reasonably possible after each exam.

A	90-100%
B	80-89%
C	70-79%
D	60-69%
F	Below 60%

Class Policies

University policies can be viewed at <http://www.marshall.edu/president/board/policies.html>.

Academic Dishonesty

Academic dishonesty will not be tolerated. Policy AA-12 defines academic dishonesty and describes the sanctions associated with it.

Inclement Weather

Policy GA-9 describes the policy on weather-related and/or emergency closings and delays. As this is an afternoon class, we will not be affected by delays. To find out if the University is closed, please call Audix at 696-6245.

Students with Disabilities Policy

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Cell Phone Use

Cell phone use, including texting, will not be tolerated in the class, unless authorized by the instructor. If special circumstances exist such that a student needs to be in communication with family members or friends during a class, please inform the instructor before the class begins. Permission will be granted on a case-by-case basis and at the sole discretion of the instructor. If a student persists in using cell phones, including texting, after they have been asked to stop, the student will be removed from the class.

Course Objectives

After completing this course, students should have a thorough understanding of the biochemistry, metabolism and structure of cells, and the molecular mechanisms that determine the function of cells. The student should be able to describe:

- 1) The components and organization of a cell including:
 - a. Membranes
 - b. Organelles
 - c. Molecular traffic of cellular components
 - d. Cytoskeleton and motility
- 2) The structure of lipids and lipoproteins, how they are synthesized, and how they are degraded.
- 3) The structure of carbohydrates, how they are synthesized and how they are broken down.
- 4) How to design experiments and analyze data.
- 5) Advanced techniques for studying DNA, RNA, and proteins.

Student Learning Outcomes	How Outcome Will Be Practice	How Outcome Will Be Assessed
Know the structure and function of membranes	In-class discussion, Online quizzes	Exam questions, Homework
Know the structure and function of cell organelles.	In-class discussion, Online quizzes	Exam questions, Homework
Know how components are transported to different parts of the cell.	In-class discussion, Online quizzes	Exam questions, Homework
Know the structure and function of the cytoskeleton.	In-class discussion, Online quizzes	Exam questions, Homework
Know how cells move.	In-class discussion, Online quizzes	Exam questions, Homework
Know the structure, synthesis, and degradation of lipids.	In-class discussion, Online quizzes	Exam questions, Homework
Know the structure, synthesis, and degradation of carbohydrates.	In-class discussion, Online quizzes	Exam questions, Homework
Analyze and assess advanced techniques for studying DNA, RNA, and protein.	In-class discussion, Online quizzes	Exam questions, Homework

BMS 602 2015 LECTURE SCHEDULE
MWF 1:00 – 2:50 PM

			CELL STRUCTURE & FUNCTION I	
1	Wednesday	October 14	How to design experiments	
2			How to analyze data	
3	Friday	October 16	Fatty acid structure	
4			Fatty acid function	
5	Monday	October 19	Membrane structure	
6			Membrane composition	
7	Wednesday	October 21	Membrane Transport 1	
8			Membrane Transport 2	
9	Friday	October 23	ER; Golgi	
10			ER; Golgi	
11	Monday	October 26	Microarrays	
12			Genomics, proteomics, etc.	
13	Wednesday	October 28	Vesicular Transport	
14			Secretion, Endosomes	
	Friday	October 30	EXAM 1 (Lectures 1-12)	
15	Monday	November 2	Cytoskeleton 1	
16			Cytoskeleton 2	
17	Wednesday	November 4	Cytoskeleton 3	
18			Cell culture and transfections	
19	Friday	November 6	ECM and Cell-Matrix Adhesion	
20			Cell-Cell Adhesion	
			CELL STRUCTURE & FUNCTION II	
21	Monday	November 9	Cloning of DNA	
22			Chromatin assays	
23	Wednesday	November 11	Fatty acid synthesis 1	
24			Fatty acid synthesis 2	
	Friday	November 13	EXAM 2 (Lectures 13-22)	

25	Monday	November 16	Fatty acid synthesis 3	
26			Flow cytometry	
27	Wednesday	November 18	Fatty acid metabolism 1	
28			Fatty acid metabolism 2	
29	Friday	November 20	Carbohydrate structure & function	
30			Glycolysis	
		November 23-27	FALL BREAK	
31	Monday	November 30	Gluconeogenesis	
32			Detecting modified proteins and nucleic acids	
33	Wednesday	December 2	Glycogen metabolism	
34			Carbohydrate lecture	
35	Friday	December 4	Citric acid cycle	
36			Mitochondria	
	Wednesday	December 9	EXAM 3 (Lectures 23-36)	

Chair: Tracy Christofero

GC#6: Cours

Request for Graduate Course Addition

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. If attachments included, please merge into a single file.
3. **The Graduate Council cannot process this application until it has received both the PDF copy and the signed hard copy.**

College: Medicine Dept/Division: Biomedical Sciences Alpha Designator/Number: BMS 603 Graded CR/NC

Contact Person: Todd L. Green, Ph.D. Phone: 304-696-3531

NEW COURSE DATA:

New Course Title: Regulation of Cell Function

Alpha Designator/Number:

B	M	S		6	0	3			
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Title Abbreviation:

R	E	G	U	L	A	T	I	O	N		C	E	L	L		F	U	N	C	T	I	O	N
---	---	---	---	---	---	---	---	---	---	--	---	---	---	---	--	---	---	---	---	---	---	---	---

(Limit of 25 characters and spaces)

Course Catalog Description: An advanced molecular and cell biological study of cell metabolism and the regulation of cell function
(Limit of 30 words)

Co-requisite(s): BMS 604 concurrent First Term to be Offered: Spring 2016

Prerequisite(s): BMS 601, BMS 602 and conse Credit Hours: 2

Course(s) being deleted in place of this addition (must submit course deletion form): _____

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

Dept. Chair/Division Head <u>Todd L. Green</u>	Date <u>2/11/15</u>
Registrar <u>Roberta Ferguson 269999</u>	Date <u>2/12/15</u>
College Curriculum Chair <u>Todd L. Green</u>	Date <u>2/11/15</u>
Graduate Council Chair <u>Christofero</u>	Date <u>3/30/15</u>

Request for Graduate Course Addition - Page 2

College: Medicine

Department/Division: Biomedical Sciences

Alpha Designator/Number: BMS 603

Provide complete information regarding the new course addition for each topic listed below. Before routing this form, a complete syllabus also must be attached addressing the items listed on the first page of this form.

1. **FACULTY:** Identify by name the faculty in your department/division who may teach this course.

Todd Green, Elsa Mangiarua, Beverly Delidow, Elaine Hardman

2. **DUPLICATION:** If a question of possible duplication occurs, attach a copy of the correspondence sent to the appropriate department(s) describing the proposal. Enter "**Not Applicable**" if not applicable.

Not Applicable

3. **REQUIRED COURSE:** If this course will be required by another department(s), identify it/them by name. Enter "**Not Applicable**" if not applicable.

Not applicable

4. **AGREEMENTS:** If there are any agreements required to provide clinical experiences, attach the details and the signed agreement. Enter "**Not Applicable**" if not applicable.

Not applicable

5. **ADDITIONAL RESOURCE REQUIREMENTS:** If your department requires additional faculty, equipment, or specialized materials to teach this course, 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 "**Not Applicable**" if not applicable.

Not applicable

6. **COURSE OBJECTIVES:** (May be submitted as a separate document)

Listed on course syllabus (attached).

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7. COURSE OUTLINE (May be submitted as a separate document)

Listed on course syllabus (attached).

8. SAMPLE TEXT(S) WITH AUTHOR(S) AND PUBLICATION DATES (May be submitted as a separate document)

Listed on course syllabus (attached).

9. EXAMPLE OF INSTRUCTIONAL METHODS (Lecture, lab, internship)

lecture, large group discussion, small group discussion

Request for Graduate Course Addition - Page 4

10. EXAMPLE EVALUATION METHODS (CHAPTER, MIDTERM, FINAL, PROJECTS, ETC.)

Exams - multiple-choice, essay, fill-in-the-blank, matching, short answer
Homework - problem-solving

11. ADDITIONAL GRADUATE REQUIREMENTS IF LISTED AS AN UNDERGRADUATE/GRADUATE COURSE

Not applicable

12. PROVIDE COMPLETE BIBLIOGRAPHY (May be submitted as a separate document)

Alberts et al., *Molecular Biology of the Cell*, 6th edition, Garland
Cooper and Hausman, *The Cell - A Molecular Approach*, 6th edition, Sinauer
Lewin, *Cells*, 3rd edition, Jones & Bartlett
Berg, Tymoczko, & Stryer; *Biochemistry*, 7th edition, Freeman
Murray et al., *Harper's Illustrated Biochemistry*, 29th edition, McGraw-Hill

Request for Graduate Course Addition - Page 5

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

Department:

Course Number and Title:

Catalog Description:

Prerequisites:

First Term Offered:

Credit Hours:

Department: Biomedical Sciences

Course Number and Title: BMS 603, Regulation of Cell Function

Catalog Description: An advanced molecular and cell biological study of cell metabolism and the regulation of cell function

Prerequisites: BMS 601, BMS 602, and consent of instructor

First Term Offered: Spring 2016

Credit Hours: 2

REGULATION OF CELL FUNCTION
BMS 603
Spring 2016

COURSE POLICY

Course Director:

Todd L. Green, Ph.D.

Office: BSC 301C

Phone: 696-3531

Fax: 696-7272

E-mail: green@marshall.edu

Required Textbooks

Lehninger Principles of Biochemistry, 6th Edition, Nelson and Cox, W.H. Freeman and Company, New York, 2013.

Molecular Cell Biology, 7th Edition, Lodish et al., W.H. Freeman and Company, New York, 2012.

Textbooks are available at the Marshall University Bookstore. There are companion websites at <http://bcs.whfreeman.com/lehninger> and <http://bcs.whfreeman.com/lodish7e>.

Classes

BMS 603 is a 2 credit hour course. Classes will be held from 1:00 - 2:50 PM from January to March on Mondays, Wednesdays and Fridays in Room 102 at the Biotechnology Science Center (BSC). While not required, attendance at all classes is strongly recommended. There is a possibility that there will be changes in the course schedule. You will be notified in advance if any changes occur.

Examinations

Two examinations will be given in this course, each during regularly scheduled class time. Only under **truly exceptional circumstances** will a student be permitted to take an examination at a time other than during the scheduled examination period. Exceptional circumstances include: death or serious illness in the immediate family, childbirth, illness requiring hospitalization and illness serious enough to warrant a written dispensation from a physician. Minor illnesses are **NOT** exceptional circumstances. A written doctor's excuse stating the nature of the illness will be required. If arrangements have not been made beforehand, the student **MUST** contact the course director within 24 hours after the scheduled exam period to discuss rescheduling the exam.

The format of each exam will consist of 50% multiple-choice and 50% of one or more of the following – essay, fill-in-the-blank, matching and short answer.

Homework

There will homework assignments throughout the course for a total of **70 points**.

Grades

Student performance is based on the scores achieved on two block exams and the homework. There is no cumulative final. The block exams will be based on 10 points/lecture. There are 27 lectures in the course. The point totals for each exam are as follows.

Exam 1	12 lectures	120 points
Exam 2	15 lectures	150 points
	27 lectures	270 points

Grades are calculated on a straight percentage scale, based on a total of **340 points (exams = 270 points, homework = 70 points)**. Final letter grades will be assigned as follows based upon the average percentage obtained on the two exams and the homework. Grades will be posted on MUOnline as soon as reasonably possible after each exam.

A	90-100%
B	80-89%
C	70-79%
D	60-69%
F	Below 60%

Class Policies

University policies can be viewed at
<http://www.marshall.edu/president/board/policies.html>.

Academic Dishonesty

Academic dishonesty will not be tolerated. Policy AA-12 defines academic dishonesty and describes the sanctions associated with it.

Inclement Weather

Policy GA-9 describes the policy on weather-related and/or emergency closings and delays. As this is an afternoon class, we will not be affected by delays. To find out if the University is closed, please call Audix at 696-6245.

Students with Disabilities Policy

Students with disabilities are required to prepare a notice either from the Help Center, Myers Hall, or Sandra Clements, PH 117, before a special accommodation can be honored. The link describing this policy is <http://www.marshall.edu/disabled>.

University Computing Services Acceptable Use Policy

MUBOG Policy IT-1 explains this policy
(<http://www.marshall.edu/president/board/policies.html>).

Cell Phone Use

Cell phone use, including texting, will not be tolerated in the class, unless authorized by the instructor. If special circumstances exist such that a student needs to be in communication with family members or friends during a class, please inform the instructor before the class begins. Permission will be granted on a case-by-case basis and at the sole discretion of the instructor. If a student persists in using cell phones, including texting, after they have been asked to stop, the student will be removed from the class.

Course Objectives

After completing this course, students should have a thorough understanding of the biochemistry, metabolism and structure of cells, and the molecular mechanisms that determine the function of cells. The student should be able to describe:

- 1) How cell metabolism is regulated.
- 2) How nitrogen is metabolized in cells.
- 3) Basic concepts in nutrition and how nutrition affects function of cells and tissues.
- 4) How cells communicate with their environment and other cells through signaling pathways.
- 5) The mechanisms of cell growth and death including:
 - a. Cell cycle regulation
 - b. Mitosis
 - c. Meiosis
 - d. Apoptosis

Student Learning Outcomes	How Outcome Will be Practiced	How Outcome Will be Assessed
Describe regulation of cell metabolism	In-class discussion, homework	Exam questions
Describe nitrogen metabolism	In-class discussion, homework	Exam questions
Describe basic concepts in nutrition	In-class discussion, homework	Exam questions
Describe cell communication and signaling	In-class discussion, homework	Exam questions
Describe the mechanisms of cell growth and death	In-class discussion, homework	Exam questions

BMS 603 2016 LECTURE SCHEDULE
MWF 1:00 – 2:50 PM

			CELL STRUCTURE & FUNCTION III	
1	Monday	January 11	Electron Transport	
2			ATP Synthesis	
3	Wednesday	January 13	Nitrogen Metabolism 1	
4			Nitrogen Metabolism 2	
5	Friday	January 15	Nitrogen Metabolism 3	
6				
	Monday	January 18	MLK DAY - HOLIDAY	
7	Wednesday	January 20	Integration of Metabolism 1	
8			Integration of Metabolism 2	
9	Friday	January 22	Nutrition 1	
10			Nutrition 2	
11	Monday	January 25	Metabolic Disorders	
12			Metabolomics	
			CELL GROWTH & DEVELOPMENT	
13	Wednesday	January 27	Signaling 1	
14			Signaling 2	
	Friday	January 29	EXAM 1 (Lectures 1-12)	
15	Monday	February 1	Signaling 3	
16			Signaling 4	
17	Wednesday	February 3	Signaling in Development	
18			Patterns of Development	
19	Friday	February 5	Apoptosis	
20			Autophagy	
21	Monday	February 8	Mitosis & Meiosis 1	
22			Mitosis & Meiosis 2	

23	Wednesday	February 17	Cell Cycle 1	
24	Wednesday	February 24	Cell Cycle 2	
25	Friday	March 4	Stem Cells	
26			Centrifugation	
27	Wednesday	March 9	Differentiation	
	Friday	March 11	EXAM 2 (Lectures 13-27)	

Request for Graduate Course Addition

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. If attachments included, please merge into a single file.
3. **The Graduate Council cannot process this application until it has received both the PDF copy and the signed hard copy.**

College: Medicine Dept/Division: Biomedical Sciences Alpha Designator/Number: BMS 604 Graded CR/NC

Contact Person: Todd L. Green, Ph.D. Phone: 304-696-3531

NEW COURSE DATA:

New Course Title: Cellular Basis of Disease

Alpha Designator/Number:

B	M	S		6	0	4			
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Title Abbreviation:

C	E	L	L		B	A	S	I	S		O	F		D	I	S	E	A	S	E				
---	---	---	---	--	---	---	---	---	---	--	---	---	--	---	---	---	---	---	---	---	--	--	--	--

(Limit of 25 characters and spaces)

Course Catalog Description: A molecular and cell biological study of the basis of diseases prevalent in Appalachia.
(Limit of 30 words)

Co-requisite(s): BMS 603 *concurrent* First Term to be Offered: Spring 2016

Prerequisite(s): BMS 601, BMS 602, and cons Credit Hours: 1

Course(s) being deleted in place of this addition (must submit course deletion form): _____

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

Dept. Chair/Division Head <u>Todd L. Green</u>	Date <u>2/11/15</u>
Registrar <u>Debra Ferguson 269999</u>	Date <u>2/12/15</u>
College Curriculum Chair <u>Todd L. Green</u>	Date <u>2/11/15</u>
Graduate Council Chair <u>T. Christofero</u>	Date <u>3/30/15</u>

Request for Graduate Course Addition - Page 2

College: Medicine

Department/Division: Biomedical Sciences

Alpha Designator/Number: BMS 604

Provide complete information regarding the new course addition for each topic listed below. Before routing this form, a complete syllabus also must be attached addressing the items listed on the first page of this form.

1. FACULTY: Identify by name the faculty in your department/division who may teach this course.

Todd Green, Elaine Hardman, Beverly Delidow, Piyali Dasgupta

2. DUPLICATION: If a question of possible duplication occurs, attach a copy of the correspondence sent to the appropriate department(s) describing the proposal. Enter "**Not Applicable**" if not applicable.

Not applicable

3. REQUIRED COURSE: If this course will be required by another department(s), identify it/them by name. Enter "**Not Applicable**" if not applicable.

Not applicable

4. AGREEMENTS: If there are any agreements required to provide clinical experiences, attach the details and the signed agreement. Enter "**Not Applicable**" if not applicable.

Not applicable

5. ADDITIONAL RESOURCE REQUIREMENTS: If your department requires additional faculty, equipment, or specialized materials to teach this course, 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 "**Not Applicable**" if not applicable.

Not applicable

6. COURSE OBJECTIVES: (May be submitted as a separate document)

Listed on course syllabus (attached).

Request for Graduate Course Addition - Page 3

7. COURSE OUTLINE (May be submitted as a separate document)

Listed on course syllabus (attached).

8. SAMPLE TEXT(S) WITH AUTHOR(S) AND PUBLICATION DATES (May be submitted as a separate document)

Listed on course syllabus (attached).

9. EXAMPLE OF INSTRUCTIONAL METHODS (Lecture, lab, internship)

lecture, large group discussion, small group discussion

Request for Graduate Course Addition - Page 4

10. EXAMPLE EVALUATION METHODS (CHAPTER, MIDTERM, FINAL, PROJECTS, ETC.)

Exam - multiple-choice, essay, fill-in-the-blank

Homework - problem-solving

Team exercise - problem-solving

11. ADDITIONAL GRADUATE REQUIREMENTS IF LISTED AS AN UNDERGRADUATE/GRADUATE COURSE

Not applicable

12. PROVIDE COMPLETE BIBLIOGRAPHY (May be submitted as a separate document)

Alberts et al., Molecular Biology of the Cell, 6th edition, Garland

Cooper and Hausman, The Cell - A Molecular Approach, 6th edition, Sinauer

Lewin, Cells, 3rd edition, Jones & Bartlett

Berg, Tymoczko, & Stryer; Biochemistry, 7th edition, Freeman

Murray et al., Harper's Illustrated Biochemistry, 29th edition, McGraw-Hill

Request for Graduate Course Addition - Page 5

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

Department:

Course Number and Title:

Catalog Description:

Prerequisites:

First Term Offered:

Credit Hours:

Department: Biomedical Sciences

Course Number and Title: BMS 604, Cellular Basis of Disease

Catalog Description: A molecular and cell biological study of the basis of diseases prevalent in Appalachia.

Prerequisites: BMS 601, BMS 602, and consent of instructor

First Term Offered: Spring 2016

Credit Hours: 1

**CELLULAR BASIS OF DISEASE
BMS 604
Spring 2016**

COURSE POLICY

Course Director:

Todd L. Green, Ph.D.

Office: BSC 301C

Phone: 696-3531

Fax: 696-7272

E-mail: green@marshall.edu

Required Textbooks

Lehninger Principles of Biochemistry, 6th Edition, Nelson and Cox, W.H. Freeman and Company, New York, 2013.

Molecular Cell Biology, 7th Edition, Lodish et al., W.H. Freeman and Company, New York, 2012.

Textbooks are available at the Marshall University Bookstore. There are companion websites at <http://bcs.whfreeman.com/lehninger> and <http://bcs.whfreeman.com/lodish7e>.

Classes

BMS 604 is a 1 credit hour course. Classes will be held from 1:00 - 1:50 PM periodically from March to May on Mondays, Wednesdays or Fridays in Room 102 at the Biotechnology Science Center (BSC). While not required, attendance at all classes is strongly recommended. There is a possibility that there will be changes in the course schedule. You will be notified in advance if any changes occur.

Examinations

One examination will be given in this course, each during regularly scheduled class time. Only under truly exceptional circumstances will a student be permitted to take an examination at a time other than during the scheduled examination period. Exceptional circumstances include: death or serious illness in the immediate family, childbirth, illness requiring hospitalization and illness serious enough to warrant a written dispensation from a physician. Minor illnesses are **NOT** exceptional circumstances. A written doctor's excuse stating the nature of the illness will be required. If arrangements have not been made beforehand, the student **MUST** contact the course director within 24 hours after the scheduled exam period to discuss rescheduling the exam.

The format of the exam will consist of 50% multiple-choice and 50% of one or more of the following – essay, fill-in-the-blank, matching and short answer.

Homework

There will homework assignments throughout the course for a total of **44 points**.

Team Exercise

At the end of the course, the students will be divided into teams of 4-6 to work together on problems related to the coursework they have had in BMS 601, 602, 603, and 604. The exercise will be worth **66 points**.

Grades

Student performance is based on the scores achieved on five block exams and the scores from the discussion sections. There is no cumulative final. The block exams will be based on 10 points/lecture. There are 36 lectures in the course. The point totals for each exam are as follows.

Exam 1	11 lectures	110 points
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Grades are calculated on a straight percentage scale, based on a total of **220 points (exam = 110 points, homework = 44 points, team exercise = 66 points)**. Final letter grades will be assigned as follows based upon the average percentage obtained on the exam, the homework and the team exercise. Grades will be posted on MUOnline as soon as reasonably possible after each exam.

A	90-100%
B	80-89%
C	70-79%
D	60-69%
F	Below 60%

Class Policies

University policies can be viewed at
<http://www.marshall.edu/president/board/policies.html>.

Academic Dishonesty

Academic dishonesty will not be tolerated. Policy AA-12 defines academic dishonesty and describes the sanctions associated with it.

Inclement Weather

Policy GA-9 describes the policy on weather-related and/or emergency closings and delays. As this is an afternoon class, we will not be affected by delays. To find out if the University is closed, please call Audix at 696-6245.

Students with Disabilities Policy

Students with disabilities are required to prepare a notice either from the Help Center, Myers Hall, or Sandra Clements, PH 117, before a special accommodation can be honored. The link describing this policy is <http://www.marshall.edu/disabled>.

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(<http://www.marshall.edu/president/board/policies.html>).

Cell Phone Use

Cell phone use, including texting, will not be tolerated in the class, unless authorized by the instructor. If special circumstances exist such that a student needs to be in communication with family members or friends during a class, please inform the instructor before the class begins. Permission will be granted on a case-by-case basis and at the sole discretion of the instructor. If a student persists in using cell phones, including texting, after they have been asked to stop, the student will be removed from the class.

Course Objectives

After completing this course, students should have a thorough understanding of the biochemistry, metabolism and structure of cells, and the molecular mechanisms that determine the function of cells. The student should be able to describe:

- 1) How cells react to stress.
- 2) How cells age.
- 3) The causes and effects of inflammation, neurodegenerative disease, exposure to toxins, cancer, obesity, diabetes, and cardiovascular disease.

Student Learning Outcomes	How Outcome Will be Practiced	How Outcome Will be Assessed
Describe how cells react to stress	In-class discussion, homework	Exam questions, team exercise
Describe how cells age	In-class discussion, homework	Exam questions, team exercise
Describe the causes and effects of diseases prevalent in Appalachia	In-class discussion, homework	Exam questions, team exercise

BMS 604 2016 LECTURE SCHEDULE
MWF 1:00 – 1:50 PM

		March 14-18	MAIN CAMPUS SPRING BREAK	
1	Monday	March 21	Cellular response to stress	
2	Wednesday	March 23	Aging	
3			Detection methods for cellular stress	
		March 28 - April 1	MED SCHOOL SPRING BREAK	
4	Monday	March 28	Inflammatory processes	
5	Wednesday	April 6	Neurodegenerative Disease	
6	Friday	April 8	Toxicology	
7	Monday	April 11	Angiogenesis and Cancer	
8			Cancer Metastasis	
9	Monday	April 18	Obesity	
10	Wednesday	April 20	Diabetes	
11			Cardiovascular Disease	
	Friday	April 29	Team Exercise	
			Team Exercise	
	Thursday	May 5	EXAM 1 (Lectures 1-11)	

Request for Graduate Course Addition

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. If attachments included, please merge into a single file.
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: Engineering

Alpha Designator/Number: CE 534

 Graded CR/NC

Contact Person: Andrew Nichols

Phone: 63203

NEW COURSE DATA:

New Course Title: Geometric Design of Highways

Alpha Designator/Number:

C E 5 3 4

Title Abbreviation:

G e o m e t r i c H i g h w a y D e s i g n

(Limit of 25 characters and spaces)

Course Catalog Description:
(Limit of 30 words)

Highway planning and design, including the capacity, horizontal alignment, vertical alignment, roadside design, traffic control, and other related aspects. Types of facilities discussed will include roadways, sidewalks, intersections, and interchanges.

Co-requisite(s):

First Term to be Offered: Fall 2015

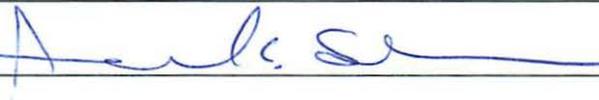
Prerequisite(s):

Credit Hours: 3

Course(s) being deleted in place of this addition (must submit course deletion form):

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

Dept. Chair/Division Head



Date

2/10/15

Registrar

 140101

Date

2/10/15

College Curriculum Chair



Date

2/12/15

Graduate Council Chair



Date

3/30/15

Request for Graduate Course Addition - Page 2

College: CITE

Department/Division: Engineering

Alpha Designator/Number: CE 534

Provide complete information regarding the new course addition for each topic listed below. Before routing this form, a complete syllabus also must be attached addressing the items listed on the first page of this form.

1. FACULTY: Identify by name the faculty in your department/division who may teach this course.

Andrew Nichols

2. DUPLICATION: If a question of possible duplication occurs, attach a copy of the correspondence sent to the appropriate department(s) describing the proposal. Enter "**Not Applicable**" if not applicable.

Not Applicable

3. REQUIRED COURSE: If this course will be required by another department(s), identify it/them by name. Enter "**Not Applicable**" if not applicable.

Not Applicable

4. AGREEMENTS: If there are any agreements required to provide clinical experiences, attach the details and the signed agreement. Enter "**Not Applicable**" if not applicable.

Not Applicable

5. ADDITIONAL RESOURCE REQUIREMENTS: If your department requires additional faculty, equipment, or specialized materials to teach this course, 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 "**Not Applicable**" if not applicable.

Not Applicable

6. COURSE OBJECTIVES: (May be submitted as a separate document)

1. Identify different roadway functional classes and distinguishing characteristics,
2. Conduct capacity analysis to determine optimal number of lanes,
3. Design horizontal and vertical roadway curvature based on given design criteria,
4. Design roadway cross-sectional features based on given design criteria,
5. Design signage and roadway striping for a given design,
6. Use existing computer tools to generate and analyze designs, and
7. Effectively communicate a design through plans and a presentation.

7. COURSE OUTLINE (May be submitted as a separate document)

Week - Topic

1. Introduction
2. Functional Classes and Design Controls
3. Data Collection and Analysis for Design
4. Capacity
5. Horizontal Curvature
6. Vertical Curvature
7. Cross-Section Elements and Roadside Design
8. Sidewalks and Pedestrian Features
9. CAD 3D Design
10. Intersections
11. Intersections
12. Traffic Control Devices
13. Interchanges
14. Interchanges
15. CAD 3D Design
16. Project Presentations

8. SAMPLE TEXT(S) WITH AUTHOR(S) AND PUBLICATION DATES (May be submitted as a separate document)

(Required) A Policy on Geometric Design of Highways and Streets (The Green Book), 6th Edition. American Association of State Highway and Transportation Officials (AASHTO). 2010.

Traffic & Highway Engineering, 4th Edition. Nicholas J. Garber and Lester A. Hoel. ISBN 0495082503. Brooks/Cole, Thomson Learning Inc. 2008.

Roadside Design Guide, 4th Edition. American Association of State Highway and Transportation Officials (AASHTO). 2011.

Manual on Uniform Traffic Control Devices (MUTCD). Federal Highway Administration. 2009.

9. EXAMPLE OF INSTRUCTIONAL METHODS (Lecture, lab, internship)

Primarily lectures with computer lab instruction on how to use design software and field visits to observe sites.

Request for Graduate Course Addition - Page 4

10. EXAMPLE EVALUATION METHODS (CHAPTER, MIDTERM, FINAL, PROJECTS, ETC.)

Homework and design project

11. ADDITIONAL GRADUATE REQUIREMENTS IF LISTED AS AN UNDERGRADUATE/GRADUATE COURSE

Once this is cross-listed with an undergraduate course, the graduate students will be required to complete a research project to summarize research that has been completed on an aspect of highway design.

12. PROVIDE COMPLETE BIBLIOGRAPHY (May be submitted as a separate document)

A Policy on Geometric Design of Highways and Streets (The Green Book), 6th Edition. American Association of State Highway and Transportation Officials (AASHTO). 2010.

Traffic & Highway Engineering, 4th Edition. Nicholas J. Garber and Lester A. Hoel. ISBN 0495082503. Brooks/Cole, Thomson Learning Inc. 2008.

Roadside Design Guide, 4th Edition. American Association of State Highway and Transportation Officials (AASHTO). 2011.

Manual on Uniform Traffic Control Devices (MUTCD). Federal Highway Administration. 2009.

Principles of Highway Design and Traffic Analysis, 5th Edition. Fred Mannering and Scott Washburn. ISBN 1118120140. Wiley. 2012.

Geometric Design Projects for Highways: An Introduction, 2nd Edition. John Schoon. ISBN 0784404259. ASCE. 2000.

Highway Geometric Design: Application of Design Standards in InRoads. Jia Xundong, Cheng Wen, and Guan Ming. ISBN 1465209646. Kendall Hunt Publishing. 2012.

Request for Graduate Course Addition - Page 5

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

Department:

Course Number and Title:

Catalog Description:

Prerequisites:

First Term Offered:

Credit Hours:

Department: Engineering

Course Number and Title: CE 534 Geometric Design of Highways

Catalog Description: Highway planning and design, including the capacity, horizontal alignment, vertical alignment, roadside design, traffic control, and other related aspects. Types of facilities discussed will include roadways, sidewalks, intersections, and interchanges.

Prerequisites: None

First Term Offered: Fall 2015

Credit Hours: 3

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: <http://wvhepcdoc.wvnet.edu/resources/133-11.pdf>.

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

Dept/Division: Engineering

Contact Person: Dr. Eldon R. Larsen

Phone: 6-2047

Degree Program M.S.E. (Master of Science in Engineering)

Check action requested: Addition Deletion Change

Effective Term/Year

Fall 20

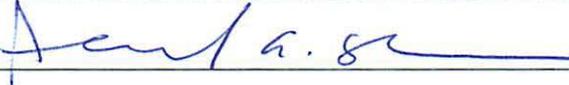
 15

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 attached.

Dept. Chair/Division Head 	Date <u>2/9/15</u>
College Curriculum Chair 	Date <u>2/12/15</u>
College Dean 	Date _____
Graduate Council Chair 	Date <u>3/30/15</u>
Provost/VP Academic Affairs _____	Date _____
Presidential Approval _____	Date _____
Board of Governors Approval _____	Date _____

Request for Graduate Addition, Deletion, or Change of a Major or Degree-Page 2

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

We have several purposes in these revisions:

- (1) To allow three options for each of the majors (Engineering Management; Environmental Engineering; and Transportation and Infrastructure Engineering): (a) Coursework-only option; (b) Coursework-plus-comprehensive-project option; and (c) Thesis option.
- (2) To allow more flexibility to meet the needs of the graduate engineering students, which also aids in recruiting and retention.
- (3) To strengthen the curriculum as needed for the majors.
- (4) To revise and clarify admissions language to be more consistent with practice.

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)

1. The following changes are made for all three M.S.E. majors: Comprehensive Project option--remains at 30 credit hours; new Thesis option--30 credit hours; and new Coursework-only option--33 credit hours. See attached documents for details.
2. The curriculum is slightly changed for the Environmental Engineering major: (a) dividing the curriculum into six categories to be covered by each student; (b) adding courses ENVE 671 and ENVE 672; (c) change ENVE 616 to "Wastewater Treatment Facility Design," and (d) change ENVE 617 to "Water Treatment Facility Design." Required foundation courses or their equivalents have also been added.
3. For the Transportation Engineering major: Required foundation courses or their equivalents have been added.

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.

No new resources are required at this time. If the enrollment in the majors grows significantly over the coming years, then more resources could be needed in the future.

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.

No duplication.

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 attached document.

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 attached document.

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:

College: CITE

Department: Engineering

Major or Degree: M.S.E. Degree Program, with majors in (1) Engineering Management, (2) Environmental Engineering, and (3) Transportation and Infrastructure Engineering

Type of Change: Change

Rationale: We have several purposes in these revisions:

- (1) To allow three options for each of the majors (Engineering Management; Environmental Engineering; and Transportation and Infrastructure Engineering): (a) Coursework-only option; (b) Coursework-plus-comprehensive-project option; and (c) Thesis option.
- (2) To allow more flexibility to meet the needs of the graduate engineering students, which also aids in recruiting and retention.
- (3) To strengthen the curriculum as needed for the majors.
- (4) To revise and clarify admissions language to be more consistent with practice.

ENGINEERING, M.S.

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: <http://www.marshall.edu/graduate/admissionsrequirements.asp>. 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:

Deleted: an ABET-accredited college or university

- 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 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 are 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 have an undergraduate engineering degree are welcome to apply as non-degree seeking students and take courses toward their M.S.E. degree. If the student has a minimum cumulative graduate GPA of 3.30 in his or her first 9 credit hours of

Deleted: up to 2.99, and have at least two of the following: (1) Pass the FE, (2) verbal GRE score at least 151, (3) quantitative GRE score at least 150, and (4) analytical writing GRE score at least 4.0. Alternatively, an applicant who has an undergraduate engineering degree from an ABET-accredited college or university and has an undergraduate GPA less than 3.00 may be considered for Provisional Admission without taking the GRE. To be removed from Provisional Admission, the student must have a minimum cumulative graduate GPA of at least 3.30 at the end of his or her first 9 credit hours of CITE M.S.E. degree courses—if this provisional requirement is not met the student will be dropped from the program.¶

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 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 (e.g., comprehensive project, thesis, 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 advisor.

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 advisor 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 ENGR 699 Comprehensive Project (3 HR) 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 HR of research (ENGR 681) 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. Examinations will be administered once per semester for all students.

MAJOR: Engineering Management

Deleted: 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 CITE M.S.E. degree classes. 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, and has an undergraduate engineering degree, the student may re-apply to the university to be considered for admission to the M.S.E. degree program. ¶
Foreign students who have an undergraduate engineering degree, but not from an ABET-accredited college or university, and who have an undergraduate GPA equivalent to at least a 2.75, can be considered for admission only on a case by case basis, and the program admission recommendation will be up to the judgment and decision of the program coordinator for the M.S.E. degree program, while taking into consideration the other requirements stated above as well as individual high achievement of the applicant. ¶
Also, all international students must have an iBT TOEFL score of at least 85, or a Paper-Based TOEFL score of at least 527, prior to registering for the first semester of courses. ¶
All students, foreign or domestic, who are admitted without an engineering degree from an ABET-accredited engineering degree program must realize that they will likely not qualify to take the FE exam or the PE exam, even if they earn the M.S.E. degree. ¶

Deleted: Each degree candidate is required to complete a least 30 graduate credit hours, consisting of 24 credit hour of required courses and 6 credit hours of electives approved by the student's advisor, with a cumulative Grade Point Average of 3.0 for the courses included in the student's Plan of Study. Each degree-seeking student must have an approved "Plan of Study," developed with a faculty advisor, that must be filed before the student registers for the 12th credit hour. Please consult the Academic Regulations portion of the Graduate Catalog for other information. The Master of Science in Engineering program culminates with the comprehensive graduate project. This project is not the traditional graduate thesis with a research orientation, but rather a real-life, industry-type project in which the student undertakes an assignment that requires synthesis of all of the coursework and its application to a typical problem from a relevant subject area. ¶

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Page Break

¶

Project Option. (30 hours)

Required courses

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. (30 hours)

Required courses

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 681	Engineering Research	6 hrs

Elective course (see approved Engineering Management electives below)..... 3 hrs

Coursework Only Option. (33 hours)

Required courses

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)..... 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

All Environmental Engineering majors 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

Project Option. (30 hours)

Required courses

One of: ENGR 610, ENGR 620, or ME 601 3 hrs
ENVE 615 Environmental Chemistry..... 3 hrs
ENGR 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
ENGR 681 Engineering 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)

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

All Transportation and Infrastructure Engineering majors 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. All other admission requirements must still be satisfied.

Foundation Courses:

- CE 312 Structural Analysis
- CE 342 Transportation Engineering
- CE 413 Reinforced Concrete or CE 414 Steel Design

Students pursuing the Project Option and the Thesis Option must choose either Transportation Engineering or Structural Engineering as their primary focus. The other discipline will be the secondary focus. Three courses must be completed in the primary focus and two courses in the secondary focus for the Project and Thesis Option. 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) Courses in Primary Focus (Structural Engr or Transportation Engr)	9 hrs
Two (2) Courses in Secondary Focus (Structural Engr or Transportation Engr)	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 Engr or Transportation Engr)	9 hrs
Two (2) Courses in Secondary Focus (Structural Engr or Transportation Engr)	6 hrs
Two (2) Elective Courses	6 hrs
ENGR 681 Engineering Research	6 hrs

Coursework Only Option. (33 hours)

ENGR 610 Applied Statistics or other Advisor Approved MTH course	3 hrs
EM 660 Engineering Management	3 hrs
Three (3) Courses in Structural Engineering	9 hrs
Three (3) Courses in Transportation Engineering	9 hrs
Three (3) Elective Courses	9 hrs

Structural Engineering Courses

- 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)

Transportation Engineering Courses

- CE 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.

Deleted: MAJOR: Engineering Management¶

- Required courses¶
- 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¶

- Two (2) elective courses approved in advance by the student's advisor . 6 hrs¶

¶ **MAJOR: Environmental Engineering¶**

- Required courses¶
- EM 660 . Project Management . 3 hrs¶
 - ENVE 615 . Environmental Chemistry . 3 hrs¶
 - ENVE 681 . Environmental Engineering Design . 3 hrs¶
 - ES 514 . Environmental Risk Assessment . 3 hrs¶
 - ES 550 . Environmental Law . 3 hrs¶
 - TE 699 . Comprehensive Project . 3 hrs¶
 - ENGR 610 . Applied Statistics . 3 hrs¶
- One of the following three courses:¶
- ES 620 . Environmental Management Systems . 3 hrs¶
 - ES 640 . Groundwater Principles . 3 hrs¶
 - ES 646 . Dynamics of Ecosystems . 3 hrs¶

¶ Elective courses¶

- Two elective courses approved in advance by the student's advisor . 6hrs¶

¶ **MAJOR: Transportation and Infrastructure Engineering¶**

- Required courses¶
- ENGR 610 Applied Statistics . 3 hrs¶
 - EM 660 Project Management . 3 hrs¶
 - TE 699 Comprehensive Project . 3 hrs¶
 - Three (3) Courses in Primary Field (Either Transportation or Infrastructure Engineering) . 9 hrs¶
 - Two (2) Courses in Secondary Field (Either Transportation or Infrastructure Engineering) . 6 hrs¶

¶ Elective courses¶

- Two (2) elective courses approved in advance by the student's advisor . 6 hrs

ENGINEERING, M.S.

Majors:

Engineering Management

Environmental Engineering

Transportation and Infrastructure Engineering.

Program Description

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- 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,
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 - (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 are 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 have an undergraduate engineering degree are welcome to apply as non-degree seeking students and take classes toward their M.S.E. degree. If the student has 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 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 (e.g., comprehensive project, thesis, 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 advisor.

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 advisor 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 ENGR 699 Comprehensive Project (3 HR) 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 HR of research (ENGR 681) 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. Examinations will be administered once per semester for all students.

MAJOR: Engineering Management

Project Option. (30 hours)

Required courses

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. (30 hours)

Required courses

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	681	Engineering Research	6 hrs

Elective course (see approved Engineering Management electives below)..... 3 hrs

Coursework Only Option. (33 hours)

Required courses

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) 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

All Environmental Engineering majors 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

Project Option. (30 hours)

Required courses

- One of: ENGR 610, ENGR 620, or ME 601 3 hrs
- ENVE 615 Environmental Chemistry..... 3 hrs
- ENGR 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
- ENGR 681 Engineering 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)

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

All Transportation and Infrastructure Engineering majors 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. All other admission requirements must still be satisfied.

Foundation Courses:

- CE 312 Structural Analysis
- CE 342 Transportation Engineering
- CE 413 Reinforced Concrete or CE 414 Steel Design

Students pursuing the Project Option and the Thesis Option must choose either Transportation Engineering or Structural Engineering as their primary focus. The other discipline will be the secondary focus. Three courses must be completed in the primary focus and two courses in the secondary focus for the Project and Thesis Option. 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) Courses in Primary Focus (Structural Engr or Transportation Engr).....	9 hrs
Two (2) Courses in Secondary Focus (Structural Engr or Transportation Engr).....	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 Engr or Transportation Engr).....	9 hrs
Two (2) Courses in Secondary Focus (Structural Engr or Transportation Engr).....	6 hrs
Two (2) Elective Courses.....	6 hrs
ENGR 681 Engineering Research	6 hrs

Coursework Only Option. (33 hours)

ENGR 610 Applied Statistics or other Advisor Approved MTH course.....	3 hrs
EM 660 Engineering Management	3 hrs
Three (3) Courses in Structural Engineering	9 hrs
Three (3) Courses in Transportation Engineering.....	9 hrs
Three (3) Elective Courses.....	9 hrs

Structural Engineering Courses

- 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)

Transportation Engineering Courses

- CE 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.

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 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 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: Technology Management _____

Contact Person: Tracy Christofero _____

Phone: 6-2078 _____

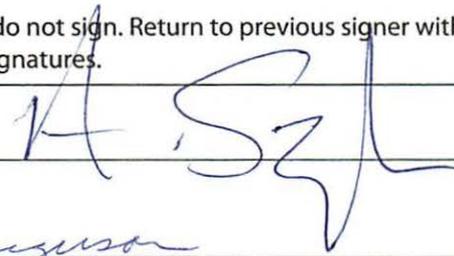
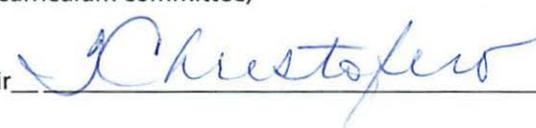
Rationale
for Request

The certificate in Technology Management was removed from the catalog Spring 2011. Given an increased interest, it should be again listed in the catalog.

(May attach
separate page
if needed)

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 <u>11-17-14</u>
Registrar _____ 	Date <u>11/20/14</u>
College Curriculum Committee Chair _____  (or Dean if no college curriculum committee)	Date <u>2/12/15</u>
Graduate Council Chair _____ 	Date <u>3-30-15</u>

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

Request for Graduate Non-Curricular Changes-Page 2

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

No current entry

Request for Graduate Non-Curricular Changes-Page 3

2. Edits to 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.

Graduate Council
Request for 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. (May attach separate page if needed)

See Attached

Graduate Certificate in Technology Management

Completion of the seven core courses will qualify a student for a certificate in Technology Management, if he/she elects not to complete the Technology Management degree.

Admission Requirements

Applicants interested in the certificate program should apply for admission to Marshall University as a Certificate/Professional Development student and indicate the Certificate in Technology Management on the application. The admissions requirements for the certificate program are the same as for the M.S. in Technology Management degree.

Curriculum

TM 610 Technology and Innovation Management

TM 612 Economic and Financial Analysis for Technology Management

TM 620 Technology Planning

TM 630 Quality and Productivity Methods

EM 620 Management of Technical Human Resources and Organizations

EM 660 Project Management

Plus one of the following:

TM 615 Information Technology Strategies

EM 694 Engineering Law

Credit Hours: 21 – All required

Graduate Council Request for Non-Curricular Changes-Page 5

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

Type of change request:

Department:

Degree program:

Effective date (*Fall/Spring/Summer, Year*)

Type of change request: Non-Curricular Catalog Change

Department: Technology Management

Degree program: Technology Management

Effective date (*Fall/Spring/Summer, Year*) Spring 2015

Re-instate the Technology Management certificate statement in the catalog

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 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 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: Technology Management _____

Contact Person: Tracy Christofero _____

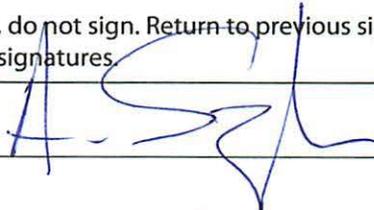
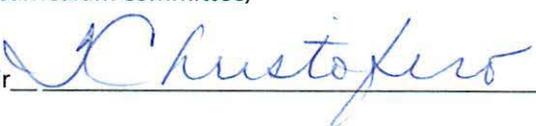
Phone: 6-2078 _____

Rationale for Request

Some catalog changes are to restore admission requirements deleted from the catalog in error. Others provide consistency with requirements of the other graduate programs in the college

(May attach separate page if needed)

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 <u>11-17-14</u>
Registrar _____ 	Date <u>11/20/14</u>
College Curriculum Committee Chair _____  (or Dean if no college curriculum committee)	Date <u>2/12/15</u>
Graduate Council Chair _____ 	Date <u>3/30/15</u>

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

Request for Graduate Non-Curricular Changes-Page 2

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

page 154

Admission Requirements

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

In addition, applicants must:

1. Have an undergraduate GPA of 2.5 or greater. There is no stipulation concerning the undergraduate major; however, the degree must be from an accredited college or university.
2. Satisfy at least one of the following:
 - Score at the mean or above on the verbal GRE
 - Score at the mean or above on the quantitative GRE
 - Score at the mean or above on the analytical GRE
 - Have previously completed a master's degree from an accredited college or university.
 - Have 10 or more years of relevant professional work experience (documented in the written summary required in item 3, which follows).
3. Submit a written summary (2 typewritten pages maximum) of education and professional experiences, and career goals related to the TM program including the Area of Emphasis the applicant is interested in pursuing.
4. Complete an interview with the TM program coordinator or designee, with part of the interview consisting of discussion of the written summary.

Request for Graduate Non-Curricular Changes-Page 3

2. Edits to 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.

Admission Requirements

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

In addition, applicants must:

1. *General Admissions Requirements*

Each applicant for admission must have an undergraduate GPA of 2.5 or greater. There is no stipulation concerning the undergraduate major, however, the degree must be from an accredited college or university. degree from an accredited college or university (there is no stipulation concerning the undergraduate major), and must satisfy at least ONE of the following criteria:

- Score at the mean or above on the verbal GRE
- Score at the mean or above on the quantitative GRE
- Score at the mean or above on the analytical GRE
- Score at the mean or above on the GMAT
- Have an undergraduate GPA of 2.50 or above
- Have previously completed a master's degree from an accredited college or university.
- Have 10 or more years of documented relevant professional work experience

(documented in the written summary required in item 3, which follows):

2. *Program Requirements*

In addition to the general requirements all students must complete the following:

- Submit a written summary (2 typewritten pages maximum) of education and professional experiences, and career goals related to the TM program including the Area of Emphasis the applicant is interested in pursuing.
- Complete an interview with the TM Program Coordinator or designee, with part of the interview consisting of discussion of the written summary.

Graduate Council
Request for 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. (May attach separate page if needed)

See Attached

Admission Requirements

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

1. *General Admissions Requirements*

Each applicant for admission must have an undergraduate degree from an accredited college or university (there is no stipulation concerning the undergraduate major), and must satisfy at least ONE of the following criteria:

- Score at the mean or above on the verbal GRE
- Score at the mean or above on the quantitative GRE
- Score at the mean or above on the analytical GRE
- Score at the mean or above on the GMAT
- Have an undergraduate GPA of 2.50 or above
- Have previously completed a master's degree from an accredited college or university.
- Have 10 or more years of documented relevant professional work experience

2. *Program Requirements*

In addition to the general requirements all students must have completed the following prior to admission:

- Submit a written summary (2 typewritten pages maximum) of education and professional experiences, and career goals related to the TM program including the Area of Emphasis the applicant is interested in pursuing.
- Complete an interview with the TM Program Coordinator or designee, with part of the interview consisting of discussion of the written summary.

Graduate Council Request for Non-Curricular Changes-Page 5

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

Type of change request:

Department:

Degree program:

Effective date (*Fall/Spring/Summer, Year*)

Type of change request: Non-Curricular Catalog Change

Department: Technology Management

Degree program: Technology Management

Effective date (*Fall/Spring/Summer, Year*) Spring 2015

Re-instate admission requirements deleted from the catalog in error, and provide consistency with other graduate programs in the college.

Request for Graduate Course Addition - Page 2

College: COS

Department/Division: IST/CJ

Alpha Designator/Number: CJ 524

Provide complete information regarding the new course addition for each topic listed below. Before routing this form, a complete syllabus also must be attached addressing the items listed on the first page of this form.

1. FACULTY: Identify by name the faculty in your department/division who may teach this course.

Margaret Phipps Brown, Dhruva Bora

2. DUPLICATION: If a question of possible duplication occurs, attach a copy of the correspondence sent to the appropriate department(s) describing the proposal. Enter "**Not Applicable**" if not applicable.

Not applicable.

3. REQUIRED COURSE: If this course will be required by another department(s), identify it/them by name. Enter "**Not Applicable**" if not applicable.

Not applicable.

4. AGREEMENTS: If there are any agreements required to provide clinical experiences, attach the details and the signed agreement. Enter "**Not Applicable**" if not applicable.

Not applicable.

5. ADDITIONAL RESOURCE REQUIREMENTS: If your department requires additional faculty, equipment, or specialized materials to teach this course, 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 "**Not Applicable**" if not applicable.

Not applicable.

6. COURSE OBJECTIVES: (May be submitted as a separate document)

Students will be able to describe and explain the basic concepts of computer crime, including

Crimes committed with the use of computers, including computer misuse crimes and traditional crimes committed with the use of a computer

Sentencing issues in computer crimes

Electronic search and seizure issues

Introduction and use of electronic evidence in court

Statutory privacy protections related to computers

Request for Graduate Course Addition - Page 3

7. COURSE OUTLINE (May be submitted as a separate document)

See attached.

8. SAMPLE TEXT(S) WITH AUTHOR(S) AND PUBLICATION DATES (May be submitted as a separate document)

Kerr, Orin S. (2013). *Computer Crime Law* (3d ed.), St. Paul, MN: Thompson/West, with 2013 Statutory and Case Supplement.

9. EXAMPLE OF INSTRUCTIONAL METHODS (Lecture, lab, internship)

Lecture and in-class discussions.

Request for Graduate Course Addition - Page 4

10. EXAMPLE EVALUATION METHODS (CHAPTER, MIDTERM, FINAL, PROJECTS, ETC.)

Exams, case briefs, and problem-based learning assignments.

11. ADDITIONAL GRADUATE REQUIREMENTS IF LISTED AS AN UNDERGRADUATE/GRADUATE COURSE

This course is currently being taught at the undergraduate level where students complete several case briefs and responses to various scenarios. In addition to these assignments, graduate students also will complete a 15+ page research paper, using scholarly sources, and proper in-text and reference citations. Moreover, graduate students will complete a 20-25 minute presentation on a course related topic.

12. PROVIDE COMPLETE BIBLIOGRAPHY (May be submitted as a separate document)

Best Practices for Seizing Electronic Evidence (3d ed.). (2007). Washington, DC: US Department of Homeland Security, US Secret Service. <http://www.forwardedge2.com/pdf/bestpractices.pdf>.

Casey, E. (2011). Digital evidence and computer crime: Forensic science, computers and the internet (3d ed.). San Diego: Academic Press.

Clifford, R.D. (2011). Cybercrime: The investigation, prosecution and defense of a computer-related crime (3d ed.). Durham, NC: Carolina Academic Press.

Electronic Crime Scene Investigation: A Guide for First Responders (2d ed.). (2008). Washington, DC: US Department of Justice, Office of Justice Programs, National Institute of Justice. <https://www.ncjrs.gov/pdffiles1/nij/219941.pdf>.

Gogolin, G. (2013). Digital forensics explained. Boca Raton, FL: CRC Press.

Kerr, O.S. (2013). Computer Crime Law (3d ed.). St. Paul, MN: West-Thomson Reuters.

Maras, M. (2015). Computer forensics: Cybercriminals, law, and evidence (2d ed.) Burlington, MA: Jones & Bartlett Learning.

Searching and Seizing Computers and Obtaining Electronic Evidence in Criminal Investigations (3d ed.). (2009). Washington, DC: United States Department of Justice, Computer Crime and Intellectual Property section, Criminal Division. <http://www.cybercrime.gov/ssmanual/ssmanual2009.pdf>.

Request for Graduate Course Addition - Page 5

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

Department:

Course Number and Title:

Catalog Description:

Prerequisites:

First Term Offered:

Credit Hours:

Department: IST/CJ

Course Number and Title: CJ 524 Computer Crime

Catalog Description: Students will identify and define criminal acts committed with computers or directed toward computer systems, electronic search and seizure and electronic evidence.

Prerequisites: None

First Term Offered: Spring 2016

Credit Hours: 3

*This course is currently offered at the undergraduate level as CJ 326 Computer Crime. A request has been made for the change at the undergraduate level (i.e., CJ 424 Computer Crime).

Course Outline: CJ 524

<p>Please note: This is a tentative outline. We may not cover every page of the reading on the date projected. This is a guess at the rate we will cover the material. EXAMS WILL BE GIVEN on the dates scheduled, unless at least one</p>	
<p>Week 1- 1/13/14</p>	
<p>Chapter 1 - Introduction</p>	
<p>ASSIGNMENT # 1</p>	pp. 1-7
<p><i>Jan 14-18 Late Registration and Schedule Adjustment</i></p>	
<p>Week 2- 1/20/15</p>	
<p>Chapter 2- Computer Misuse Crimes</p>	
<p>§ A. Why Punish Computer Misuse?</p>	
<p>ASSIGNMENT # 2</p>	
<p>§ B. Property Crimes as a Response to Computer Misuse BRIEF: United States v. Seidlitz</p>	
<p>United States v. McGraw</p>	
<p>§ C. Unauthorized Access Statutes</p>	pp. 8-51
<p>Introduction to Unauthorized Access Statutes</p>	
<p>ASSIGNMENT # 3</p>	
<p>What is "Access"? BRIEF: State v. Riley</p>	
<p>What is Authorization? The Case of Code-Based Restrictions BRIEF: United States v. Morris</p>	
<p><i>Jan 20 Martin Luther King, Jr. Holiday, University Closed</i></p>	
<p><i>Jan 21-Mar 28 "W" Withdrawal period (for individual classes)</i></p>	
<p>Week 3- 1/27/14</p>	
<p>Chapter 2- Computer Misuse Crimes (continued)</p>	
<p>§ C. Unauthorized Access Statutes (continued)</p>	
<p>What is Authorization? The Case of Contract-Based Restrictions BRIEF: United States v. Drew</p>	
<p>What is Authorization? The Case of Norms-Based Restrictions BRIEF: United States v. Nosal</p>	
<p>§ D. 18 U.S.C. § 1030(a)(2) and its Felony Enhancements</p>	
<p>18 U.S.C. § 1030(a)(2) Misdemeanor Liability</p>	
<p>18 U.S.C. § 1030(a)(2) Felony Liability BRIEF: United States v. Batti</p>	pp. 51-135
<p>§ E. 18 U.S.C. § 1030(a)(4) and Computer Fraud Statutes BRIEF: United States v. Czubinski</p>	
<p>§ F. 18 U.S.C. § 1030(a)(5)</p>	
<p>18 U.S.C. § 1030(A)(5) Misdemeanor Liability BRIEF: United States v. Carlson</p>	
<p>18 U.S.C. § 1030(a)(5) Felony Liability</p>	

<p>BRIEF: <i>United States v. Middleton</i> <i>United States v. Sablan</i> ASSIGNMENT # 4</p>	
<p>Week 4–2/3/14</p>	
<p>Chapter 3-Traditional Crimes § A. Economic Crimes Property Crimes BRIEF: <i>People v. Johnson</i> <i>United States v. Aleynikov</i> The Economic Espionage Act BRIEF: <i>United States v. Genovese</i> Identity Theft and Access Device Fraud BRIEF: <i>United States v. Barrington</i> Copyright Law BRIEF: <i>United States v. Moran</i> <i>United States v. Armstead</i> <i>United States v. Shabazz</i></p>	<p>pp. 136-201</p>
<p>Feb 7 Applications for May Graduation due in Academic Dean's office</p>	
<p>Week 5–2/10/14</p>	
<p>Chapter 3-Traditional Crimes (continued) § B. Crimes against Persons Threats and Harassment BRIEF: <i>United States v. Alkhabaz</i> <i>United States v. Carmichael</i> <i>United States v. White</i> Invasion of Privacy Crimes § C. Vice Crimes Internet Gambling BRIEF: <i>United States v. Cohen</i> Obscenity BRIEF: <i>Miller v. California</i> <i>United States v. Extreme Associates, Inc.</i></p>	<p>pp. 201-267</p>
<p>February 14 Last Day to Drop 1st 8 Weeks Course</p>	
<p>Week 6–2/17/14</p>	
<p>Chapter 3-Traditional Crimes (continued) § D. Child Exploitation Crimes Child Pornography BRIEF: <i>United States v. Shaffer</i> <i>Barton v. State</i> <i>Ashcroft v. Free Speech Coalition</i> <i>United States v. Marchand</i> Traveler Cases and Entrapment BRIEF: <i>State v. Davies</i> ASSIGNMENT # 5</p>	<p>pp. 267-327</p>

Week 7–2/24/14	
Review-Catch Up	
Week 8–3/3/14	
Exam # 1 (3/6/14) Chapter 4-Sentencing § A. Are Computer Crimes Different? ASSIGNMENT # 6 BRIEF: <i>United States v. Lee</i> § B. Sentencing in Child Pornography Cases ASSIGNMENT # 7 § C. Sentencing in Computer Misuse Cases BRIEF: <i>United States v. Dihn</i> ASSIGNMENT # 8 § D. Supervised Release and Probation Restrictions BRIEF: <i>United States v. Paul</i> <i>United States v. Safsky</i>	pp. 328-375
Mar 5 Mid-Semester, 1 st 8 Weeks Courses End Mar 6 2 nd 8 Weeks Courses Begin	
Week 9–3/10/14	
Chapter 5 - The Fourth Amendment § A. The Requirement of Government Action BRIEF: <i>United States v. Jarrett</i> § B. Defining Searches and Seizures Searches BRIEF: <i>United States v. David</i> Seizures BRIEF: <i>United States v. Jefferson</i> § C. Exceptions to the Warrant Requirement Exigent Circumstances BRIEF: <i>United States v. Trowbridge</i> Consent BRIEF: <i>United States v. Al-Marri</i> ASSIGNMENT # 9 <i>United States v. Buckner</i> <i>United States v. Andrus</i>	pp. 376-445
Mar 11 Deadline for submitting freshmen midterm grades	
Week 10–3/17/14	
SPRING VACATION – CLASSES DISMISSED	
Week 11–3/24/14	
Chapter 5 - The Fourth Amendment (continued) § C. Exceptions to the Warrant Requirement (continued) Search Incident to Arrest BRIEF: <i>Schlossberg v. Solesbee</i> Border Searches	pp. 445-504

<p>BRIEF: United States v. Arnold 5. Government Workplace Searches BRIEF: Leventhal v. Knapek § D. Searching and Seizing Computers with a Warrant Probable Cause and Particularity BRIEF: United States v. Adjani ASSIGNMENT # 10 The Physical Search Stage BRIEF: United States v. Hill ASSIGNMENT # 11</p>	
<p>Mar 28 Last day to drop a full semester individual course Mar 31 – May 2 Complete Withdrawals only</p>	
<p>Week 12–3/31/14</p>	
<p>Chapter 5- The Fourth Amendment (continued) § D. Searching and Seizing Computers with a Warrant (continued) The Electronic Search Stage BRIEF: United States v. Williams Ex Ante Restrictions on Computer Warrants BRIEF: In re Application for Search Warrant . . . Edward Cunnius Encryption BRIEF: In re Supboena Duces Tecum § E. The Fourth Amendment and Computer Networks Analogies to Speech, Letters, and Telephone Calls Non-Content Information BRIEF: United States v. Forrester United States v. Skinner (Supplement) Content Information BRIEF: United States v. Warshak</p>	<p>pp.504-573</p>
<p>Mar 31 – Apr 4 Advance Registration for Summer Session for currently enrolled students Mar 31 Students should schedule appointments with advisors to prepare for advance registration</p>	
<p>Week 13–4/7/14</p>	
<p>Chapter 6- Statutory Privacy Protections § A. The Wiretap Act The Basic Structure BRIEF: O'Brien v. O'Brien The Consent Exception BRIEF: Griggs-Ryan v. Smith ASSIGNMENT # 12 The Provider Exception BRIEF: United States v. Auler United States v. McGrath The Computer Trespasses Exception ASSIGNMENT # 13</p>	<p>pp.574-618</p>

Apr 8 Assessment Day Apr 11 Last Day to Drop 2 nd 8 Weeks Courses	
Week 14–4/14/14	
Chapter 6 - Statutory Privacy Protections (continued) § B. The Pen Register Statute BRIEF: <i>In re Application of the United States of America</i> ASSIGNMENT # 14 § C. The Stored Communications Act The Basic Structure Compelled Disclosure Under § 2703 BRIEF: <i>United States v. Weaver</i> Voluntary Disclosure Under § 2703 BRIEF: <i>Anderson Consulting LLP v. UOP Jayne v. Sprint PCS</i> ASSIGNMENT # 15 § D. Problems ASSIGNMENT # 16	pp. 618-
Apr 14 – 18 Advance Registration for Fall Semester for Currently	
Week 15–4/21/14	
Chapter 8 - National Security § A. The Fourth Amendment BRIEF: <i>United States v. United States District Court</i> § B. The Foreign Intelligence Surveillance Act § C. Use of FISA Evidence in Criminal Cases BRIEF: <i>United States v. Squillacote</i> Graduate paper due	pp. 648-684
Week 16–4/28/13	
Review/Catch Up	
Apr 28 – May 2 Dead Week May 2 Last Class Day and Last Day to Completely Withdraw for Spring	
Week 17–5/5/14	
FINALEXAM: Tuesday 5/6/14 @ 8:00 am	
May 3 Exam Day for Saturday Classes May 5 Exam Day May 6 Exam Day May 7 Study Day—Exams for Wednesday Classes 3 p.m. and After Will be Held May 8 Exam Day May 9 Exam Day May 10 Commencement	
*Class presentations may vary from schedule due to student interest or comprehension.	

Request for Graduate Addition, Deletion, or Change of Area of Emphasis-Page 1

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. If attachments included, please merge into a single file.
 3. **The Graduate Council cannot process this application until it has received both the PDF copy and the signed hard copy.**

Finance

College: Business

Dept/Division: Management/Marketing/MIS

Contact Person: Dr. Margie McInerney

Phone: 304-696-2675

Action Requested

Check action requested: Addition Deletion Change

Degree Program MBA

Area of Emphasis Finance

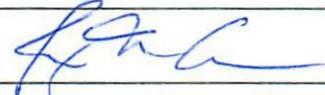
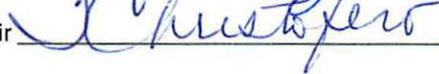
Effective Term/Year Fall 20 15 Spring 20 Summer 20

Notifications

Attach a copy of written notification regarding this curriculum request to the following:

1. Statement of Non-Duplication: If this area of emphasis will be similar in title or content to an existing area of emphasis, please send a memo to the affected department/division and include a copy with this packet as well as the response received from the affected department.
2. If your department/division requires additional faculty, equipment, or specialized materials, attach an estimate of cost and time required to secure these items.

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

Dept. Chair/Division Head 	Date <u>2/12/15</u>
Registrar 	Date <u>2/13/15</u>
College Curriculum Chair 	Date <u>2-12-15</u>
College Dean 	Date <u>2-13-15</u>
Graduate Council Chair 	Date <u>3/30/15</u>
Provost/VP Academic Affairs _____	Date _____
President _____	Date _____

Request for Graduate Addition, Deletion, or Change of Area of Emphasis-Page 2

1. Please provide a rationale for addition, deletion, change:

Add value to the MBA program by offering concentration in Finance. Current and prospective students, particularly international, have expressed interest in a Finance concentration.

2. Please describe any changes in curriculum:

Course number, title, credit hours. Note whether each course is required or optional. Enter NONE if no change.

There are two required electives in the MBA program. Students who use both of those electives to take two additional Finance courses (FIN 620 already required) will earn a concentration in that area. We plan to offer one elective every semester on a rotating basis. Additional Finance courses are already approved in the Graduate Catalog and new ones are being developed.

3. **Additional Resource Requirements:** If your program requires additional faculty, equipment or specialized materials to ADD or CHANGE this Area of Emphasis attach an estimate of the time and money required to secure these items. May attach separate page if needed

NOTE: approval of this form does not imply approval for additional resources. Enter NOT APPLICABLE if not applicable.

NOT APPLICABLE

4. **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 action, please fill in the following pages.

Request for Graduate Addition, Deletion, or Change of Area of Emphasis-Page 3

5. **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)

Attached

6. **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.

7. **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)

Attached

Request for Graduate Addition, Deletion, or Change of Area of Emphasis-Page 4

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

Department:

Area of Emphasis Title:

Credit Hours:

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

Term to Take Effect: *(Fall, Spring, Summer/Year)*

Rationale:

MBA

Finance

36 (9 in Finance)

addition

Fall 2015

Add value to the MBA program by offering concentration in Finance. Current and prospective students, particularly international, have expressed interest in a Finance concentration.

Pg. 90-91

Course Requirements

All students are required to complete 36 hours of M.B.A. Functional Studies courses and 0-15 hours of Business Foundation courses, as determined by the M.B.A. Director and/or the GSM Academic Advisor. The 36-hour M.B.A. courses must be completed with a GPA of 3.0 (B or better) with no more than 2 C's. In addition, each candidate must pass a comprehensive assessment, which normally is a required written term paper within the final, integrated capstone course, MGT 699, "Business Policy and Strategy."

Business Foundation Courses

MGT 500 Analytic Methods and Techniques

ACC 510 Survey of Accounting

ECN 501 Economic Analysis

MKT 511 Marketing and Management

FIN 510 Principles of Business Finance

M.B.A. Functional Studies Courses

MGT 601 Quantitative Methods for Business

ACC 613 Profit Planning and Controls

FIN 620 Financial Management

MGT 672 Organizational Behavior

MKT 682 Advanced Marketing Management

MIS 678 Management Information Systems

ECN 630 Managerial Economics

MGT 674 Production/Operations Management

MGT 699 Business Policy and Strategy

+Three Elective courses

Area of Emphasis

Students who choose to take 2 elective courses in either Marketing, Finance, Management, Health Care Administration, or Human Resources in addition to the functional study courses can receive a concentration in that functional area.

Request for Graduate Addition, Deletion, or Change of Area of Emphasis-Page 1

Healthcare Admin

- 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. If attachments included, please merge into a single file.
- 3. **The Graduate Council cannot process this application until it has received both the PDF copy and the signed hard copy.**

College: Business

Dept/Division: Management/Marketing/MIS

Contact Person: Dr. Margie McInerney

Phone: 304-696-2675

Action Requested

Check action requested: Addition Deletion Change

Degree Program MBA

Area of Emphasis Health Care Administration

Effective Term/Year Fall 20 Spring 20 Summer 20

Notifications

Attach a copy of written notification regarding this curriculum request to the following:

- 1. Statement of Non-Duplication: If this area of emphasis will be similar in title or content to an existing area of emphasis, please send a memo to the affected department/division and include a copy with this packet as well as the response received from the affected department.
- 2. If your department/division requires additional faculty, equipment, or specialized materials, attach an estimate of cost and time required to secure these items.

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

Dept. Chair/Division Head <i>[Signature]</i>	Date <u>2/12/15</u>
Registrar <i>[Signature]</i>	Date <u>2/13/15</u>
College Curriculum Chair <i>[Signature]</i>	Date <u>2-12-15</u>
College Dean <i>[Signature]</i>	Date <u>2-13-15</u>
Graduate Council Chair <i>[Signature]</i>	Date <u>3/30/15</u>
Provost/VP Academic Affairs _____	Date _____
President _____	Date _____

Request for Graduate Addition, Deletion, or Change of Area of Emphasis-Page 2

1. Please provide a rationale for addition, deletion, change:

Add value to the MBA program by offering a concentration in Health Care Administration. This will help the program stand out since students can specialize in an area opposed to a general MBA. We are already offering the Health Care courses to accommodate this emphasis.

2. Please describe any changes in curriculum:

Course number, title, credit hours. Note whether each course is required or optional. Enter NONE if no change.

There are two required electives in the MBA program. Students who take three classes in HCA will earn a concentration in that area. We will offer several HCA options every semester as part of the MS in HCA program.

3. **Additional Resource Requirements:** If your program requires additional faculty, equipment or specialized materials to ADD or CHANGE this Area of Emphasis attach an estimate of the time and money required to secure these items. May attach separate page if needed

NOTE: approval of this form does not imply approval for additional resources. Enter NOT APPLICABLE if not applicable.

NOT APPLICABLE

4. **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 action, please fill in the following pages.

Request for Graduate Addition, Deletion, or Change of Area of Emphasis-Page 3

5. **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)

Attached

6. **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.

7. **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)

Attached

Request for Graduate Addition, Deletion, or Change of Area of Emphasis-Page 4

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

Department:

Area of Emphasis Title:

Credit Hours:

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

Term to Take Effect: (*Fall, Spring, Summer/Year*)

Rationale:

Management/Marketing/MIS

Health Care Administration

36

addition

Fall 2015

Add value to the MBA program by offering a concentration in Health Care Administration. This will help the program stand out since students can specialize in an area opposed to a general MBA. We are already offering the Health Care courses to accommodate this emphasis.

Pg. 90-91

Course Requirements

All students are required to complete 36 hours of M.B.A. Functional Studies courses and 0-15 hours of Business Foundation courses, as determined by the M.B.A. Director and/or the GSM Academic Advisor. The 36-hour M.B.A. courses must be completed with a GPA of 3.0 (B or better) with no more than 2 C's. In addition, each candidate must pass a comprehensive assessment, which normally is a required written term paper within the final, integrated capstone course, MGT 699, "Business Policy and Strategy."

Business Foundation Courses

MGT 500 Analytic Methods and Techniques

ACC 510 Survey of Accounting

ECN 501 Economic Analysis

MKT 511 Marketing and Management

FIN 510 Principles of Business Finance

M.B.A. Functional Studies Courses

MGT 601 Quantitative Methods for Business

ACC 613 Profit Planning and Controls

FIN 620 Financial Management

MGT 672 Organizational Behavior

MKT 682 Advanced Marketing Management

MIS 678 Management Information Systems

ECN 630 Managerial Economics

MGT 674 Production/Operations Management

MGT 699 Business Policy and Strategy

+Three Elective courses

Area of Emphasis

Students who choose to take 2 elective courses in either Marketing, Finance, Management, Health Care Administration, or Human Resources in addition to the functional study courses can receive a concentration in that functional area.

Request for Graduate Addition, Deletion, or Change of Area of Emphasis-Page 1

HRM

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. If attachments included, please merge into a single file.
3. **The Graduate Council cannot process this application until it has received both the PDF copy and the signed hard copy.**

College: Business

Dept/Division: Management/Marketing/MIS

Contact Person: Dr. Margie McInerney

Phone: 304-696-2675

Action Requested

Check action requested: Addition Deletion Change

Degree Program MBA

Area of Emphasis Human Resource Management

Effective Term/Year Fall 20 15 Spring 20 Summer 20

Notifications

Attach a copy of written notification regarding this curriculum request to the following:

1. Statement of Non-Duplication: If this area of emphasis will be similar in title or content to an existing area of emphasis, please send a memo to the affected department/division and include a copy with this packet as well as the response received from the affected department.
2. If your department/division requires additional faculty, equipment, or specialized materials, attach an estimate of cost and time required to secure these items.

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

Dept. Chair/Division Head		Date	2/12/15
Registrar		Date	2/13/15
College Curriculum Chair		Date	2-12-15
College Dean		Date	2-13-15
Graduate Council Chair		Date	
Provost/VP Academic Affairs		Date	
President		Date	

Request for Graduate Addition, Deletion, or Change of Area of Emphasis-Page 2

1. Please provide a rationale for addition, deletion, change:

Add value to the MBA program by offering a concentration in Human Resource Management. This will help the program stand out since students can specialize in an area opposed to a general MBA. We are already offering the Human Resources courses to accommodate this emphasis.

2. Please describe any changes in curriculum:

Course number, title, credit hours. Note whether each course is required or optional. Enter NONE if no change.

There are two required electives in the MBA program. Students who take three courses in HRM will earn a concentration in that area. We will offer several HRM options every semester as part of the MS in HRM program.

3. **Additional Resource Requirements:** If your program requires additional faculty, equipment or specialized materials to ADD or CHANGE this Area of Emphasis attach an estimate of the time and money required to secure these items. May attach separate page if needed

NOTE: approval of this form does not imply approval for additional resources. Enter NOT APPLICABLE if not applicable.

NOT APPLICABLE

4. **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 action, please fill in the following pages.

Request for Graduate Addition, Deletion, or Change of Area of Emphasis-Page 3

5. **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)

Attached

6. **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.

7. **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)

Attached

Request for Graduate Addition, Deletion, or Change of Area of Emphasis-Page 4

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

Department:

Area of Emphasis Title:

Credit Hours:

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

Term to Take Effect: *(Fall, Spring, Summer/Year)*

Rationale:

Management/Marketing/MIS

Health Care Administration

36

addition

Fall 2015

Add value to the MBA program by offering a concentration in Human Resource Management. This will help the program stand out since students can specialize in an area opposed to a general MBA. We are already offering the HRM courses to accommodate this emphasis.

Pg. 90-91

Course Requirements

All students are required to complete 36 hours of M.B.A. Functional Studies courses and 0-15 hours of Business Foundation courses, as determined by the M.B.A. Director and/or the GSM Academic Advisor. The 36-hour M.B.A. courses must be completed with a GPA of 3.0 (B or better) with no more than 2 C's. In addition, each candidate must pass a comprehensive assessment, which normally is a required written term paper within the final, integrated capstone course, MGT 699, "Business Policy and Strategy."

Business Foundation Courses

MGT 500 Analytic Methods and Techniques

ACC 510 Survey of Accounting

ECN 501 Economic Analysis

MKT 511 Marketing and Management

FIN 510 Principles of Business Finance

M.B.A. Functional Studies Courses

MGT 601 Quantitative Methods for Business

ACC 613 Profit Planning and Controls

FIN 620 Financial Management

MGT 672 Organizational Behavior

MKT 682 Advanced Marketing Management

MIS 678 Management Information Systems

ECN 630 Managerial Economics

MGT 674 Production/Operations Management

MGT 699 Business Policy and Strategy

+Three Elective courses

Area of Emphasis

Students who choose to take 2 elective courses in either Marketing, Finance, Management, Health Care Administration, or Human Resources in addition to the functional study courses can receive a concentration in that functional area.

Request for Graduate Addition, Deletion, or Change of Area of Emphasis-Page 1

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. If attachments included, please merge into a single file.
 3. **The Graduate Council cannot process this application until it has received both the PDF copy and the signed hard copy.**

Management

College: Business

Dept/Division: Management/Marketing/MIS

Contact Person: Dr. Margie McInerney

Phone: 304-696-2675

Action Requested

Check action requested: Addition Deletion Change

Degree Program MBA

Area of Emphasis Management

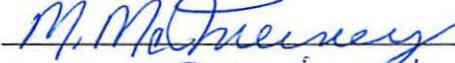
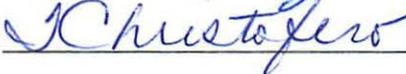
Effective Term/Year Fall 20 15 Spring 20 Summer 20

Notifications

Attach a copy of written notification regarding this curriculum request to the following:

1. Statement of Non-Duplication: If this area of emphasis will be similar in title or content to an existing area of emphasis, please send a memo to the affected department/division and include a copy with this packet as well as the response received from the affected department.
2. If your department/division requires additional faculty, equipment, or specialized materials, attach an estimate of cost and time required to secure these items.

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

Dept. Chair/Division Head 	Date <u>2/12/15</u>
Registrar 	Date <u>2/13/15</u>
College Curriculum Chair 	Date <u>2-12-15</u>
College Dean 	Date <u>2-13-15</u>
Graduate Council Chair 	Date <u>3/30/15</u>
Provost/VP Academic Affairs _____	Date _____
President _____	Date _____

Request for Graduate Addition, Deletion, or Change of Area of Emphasis-Page 2

1. Please provide a rationale for addition, deletion, change:

Add value to the MBA program by offering a concentration in Management. This will help the program stand out since students can specialize in an area opposed to a general MBA. We are already offering additional Management courses to accommodate this emphasis.

2. Please describe any changes in curriculum:

Course number, title, credit hours. Note whether each course is required or optional. Enter NONE if no change.

There are two required electives in the MBA program. Students who use both to take three classes in Management will earn a concentration in that area. We will offer several additional Management courses every semester.

3. **Additional Resource Requirements:** If your program requires additional faculty, equipment or specialized materials to ADD or CHANGE this Area of Emphasis attach an estimate of the time and money required to secure these items. May attach separate page if needed

NOTE: approval of this form does not imply approval for additional resources. Enter NOT APPLICABLE if not applicable.

NOT APPLICABLE

4. **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 action, please fill in the following pages.

Request for Graduate Addition, Deletion, or Change of Area of Emphasis-Page 3

5. **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)

Attached

6. **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.

7. **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)

Attached

Request for Graduate Addition, Deletion, or Change of Area of Emphasis-Page 4

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

Department:

Area of Emphasis Title:

Credit Hours:

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

Term to Take Effect: *(Fall, Spring, Summer/Year)*

Rationale:

Management/Marketing/MIS

Health Care Administration

36

addition

Fall 2015

Add value to the MBA program by offering a concentration in Management. This will help the program stand out since students can specialize in an area opposed to a general MBA. We are already offering additional Management courses to accommodate this emphasis.

Course Requirements

All students are required to complete 36 hours of M.B.A. Functional Studies courses and 0-15 hours of Business Foundation courses, as determined by the M.B.A. Director and/or the GSM Academic Advisor. The 36-hour M.B.A. courses must be completed with a GPA of 3.0 (B or better) with no more than 2 C's. In addition, each candidate must pass a comprehensive assessment, which normally is a required written term paper within the final, integrated capstone course, MGT 699, "Business Policy and Strategy."

Business Foundation Courses

MGT 500 Analytic Methods and Techniques

ACC 510 Survey of Accounting

ECN 501 Economic Analysis

MKT 511 Marketing and Management

FIN 510 Principles of Business Finance

M.B.A. Functional Studies Courses

MGT 601 Quantitative Methods for Business

ACC 613 Profit Planning and Controls

FIN 620 Financial Management

MGT 672 Organizational Behavior

MKT 682 Advanced Marketing Management

MIS 678 Management Information Systems

ECN 630 Managerial Economics

MGT 674 Production/Operations Management

MGT 699 Business Policy and Strategy

+Three Elective courses

Area of Emphasis

Students who choose to take 2 elective courses in either Marketing, Finance, Management, Health Care Administration, or Human Resources in addition to the functional study courses can receive a concentration in that functional area.

Request for Graduate Addition, Deletion, or Change of Area of Emphasis-Page 1

Marketing

- 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. If attachments included, please merge into a single file.
- 3. **The Graduate Council cannot process this application until it has received both the PDF copy and the signed hard copy.**

College: Business

Dept/Division: Management/Marketing/MIS

Contact Person: Dr. Margie McInerney

Phone: 304-696-2675

Action Requested

Check action requested: Addition Deletion Change

Degree Program MBA

Area of Emphasis Marketing

Effective Term/Year Fall 20 15 Spring 20 Summer 20

Notifications

Attach a copy of written notification regarding this curriculum request to the following:

- 1. Statement of Non-Duplication: If this area of emphasis will be similar in title or content to an existing area of emphasis, please send a memo to the affected department/division and include a copy with this packet as well as the response received from the affected department.
- 2. If your department/division requires additional faculty, equipment, or specialized materials, attach an estimate of cost and time required to secure these items.

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

Dept. Chair/Division Head <u>[Signature]</u>	Date <u>2/12/15</u>
Registrar <u>[Signature]</u>	Date <u>2/13/15</u>
College Curriculum Chair <u>[Signature]</u>	Date <u>2-12-15</u>
College Dean <u>[Signature]</u>	Date <u>2-13-15</u>
Graduate Council Chair <u>[Signature]</u>	Date <u>3/30/15</u>
Provost/VP Academic Affairs _____	Date _____
President _____	Date _____

Request for Graduate Addition, Deletion, or Change of Area of Emphasis-Page 2

1. Please provide a rationale for addition, deletion, change:

Add value to the MBA program by offering concentration in Marketing. Current and prospective students, particularly international, have expressed interest in a Marketing concentration.

2. Please describe any changes in curriculum:

Course number, title, credit hours. Note whether each course is required or optional. Enter NONE if no change.

There are two required electives in the MBA program. Students who use both of those electives to take two additional Marketing courses (MKT 682 already required) will earn a concentration in that area. We plan to offer one elective every semester on a rotating basis. Additional Marketing courses are already approved in the Graduate Catalog and new ones are being developed.

3. **Additional Resource Requirements:** If your program requires additional faculty, equipment or specialized materials to ADD or CHANGE this Area of Emphasis attach an estimate of the time and money required to secure these items. May attach separate page if needed

NOTE: approval of this form does not imply approval for additional resources. Enter NOT APPLICABLE if not applicable.

NOT APPLICABLE

4. **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 action, please fill in the following pages.

Request for Graduate Addition, Deletion, or Change of Area of Emphasis-Page 3

5. **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)

Attached

6. **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.

7. **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)

Attached

Request for Graduate Addition, Deletion, or Change of Area of Emphasis-Page 4

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

Department:

Area of Emphasis Title:

Credit Hours:

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

Term to Take Effect: *(Fall, Spring, Summer/Year)*

Rationale:

MBA

Marketing

36 (9 in Marketing)

addition

Fall 2015

Add value to the MBA program by offering concentration in Marketing. Current and prospective students, particularly international, have expressed interest in a Marketing concentration.

Pg. 90-91

Course Requirements

All students are required to complete 36 hours of M.B.A. Functional Studies courses and 0-15 hours of Business Foundation courses, as determined by the M.B.A. Director and/or the GSM Academic Advisor. The 36-hour M.B.A. courses must be completed with a GPA of 3.0 (B or better) with no more than 2 C's. In addition, each candidate must pass a comprehensive assessment, which normally is a required written term paper within the final, integrated capstone course, MGT 699, "Business Policy and Strategy."

Business Foundation Courses

MGT 500 Analytic Methods and Techniques

ACC 510 Survey of Accounting

ECN 501 Economic Analysis

MKT 511 Marketing and Management

FIN 510 Principles of Business Finance

M.B.A. Functional Studies Courses

MGT 601 Quantitative Methods for Business

ACC 613 Profit Planning and Controls

FIN 620 Financial Management

MGT 672 Organizational Behavior

MKT 682 Advanced Marketing Management

MIS 678 Management Information Systems

ECN 630 Managerial Economics

MGT 674 Production/Operations Management

MGT 699 Business Policy and Strategy

+Three Elective courses

Area of Emphasis

Students who choose to take 2 elective courses in either Marketing, Finance, Management, Health Care Administration, or Human Resources in addition to the functional study courses can receive a concentration in that functional area.

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: <http://wvhepcdoc.wvnet.edu/resources/133-11.pdf>.

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: Business

Dept/Division: Management/Marketing/MIS

Contact Person: Dr. Margie McInerney

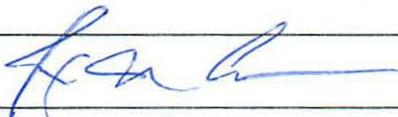
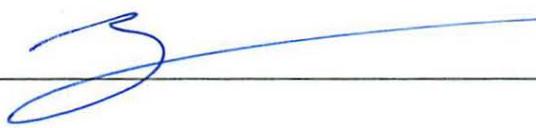
Phone: 304-696-2675

Degree Program MBA

Check action requested: Addition Deletion ChangeEffective Term/Year Fall 20 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 attached.

Dept. Chair/Division Head 	Date <u>2/12/15</u>
College Curriculum Chair 	Date <u>2-12-15</u>
College Dean <u>M. McInerney</u>	Date <u>2-13-15</u>
Graduate Council Chair <u>T. Christofero</u>	Date <u>3/30/15</u>
Provost/VP Academic Affairs _____	Date _____
Presidential Approval _____	Date _____
Board of Governors Approval _____	Date _____

Request for Graduate Addition, Deletion, or Change of a Major or Degree-Page 2

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

Drop LE 691 as a required MBA course and add an additional elective. Legal issues are covered in other MBA courses and we would like to give students some flexibility with their program of study. This will allow students to take additional Marketing, Finance, Management, Human Resources, Health Care, or other courses in their area of interest, allowing them to receive a Concentration in that area.

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)

Drop LE 691 (3 credit hours) add additional elective course (3 credit hours)

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)

Attached

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)

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:

Management/MKT/MIS

MBA

Change

Drop LE 691 as a required MBA course and add an additional elective. Legal issues are covered in other MBA courses and we would like to give students some flexibility with their program of study. This will allow students to take additional Marketing, Finance, Management, Human Resources, Health Care, or other courses in their area of interest, allowing them to receive a Concentration in that area.

Pg. 90-91

Course Requirements

All students are required to complete 36 hours of M.B.A. Functional Studies courses and 0-15 hours of Business Foundation courses, as determined by the M.B.A. Director and/or the GSM Academic Advisor. The 36-hour M.B.A. courses must be completed with a GPA of 3.0 (B or better) with no more than 2 C's. In addition, each candidate must pass a comprehensive assessment, which normally is a required written term paper within the final, integrated capstone course, MGT 699, "Business Policy and Strategy."

Business Foundation Courses

MGT 500 Analytic Methods and Techniques

ACC 510 Survey of Accounting

ECN 501 Economic Analysis

MKT 511 Marketing and Management

FIN 510 Principles of Business Finance

M.B.A. Functional Studies Courses

MGT 601 Quantitative Methods for Business

ACC 613 Profit Planning and Controls

FIN 620 Financial Management

MGT 672 Organizational Behavior

MKT 682 Advanced Marketing Management

MIS 678 Management Information Systems

ECN 630 Managerial Economics

MGT 674 Production/Operations Management

MGT 699 Business Policy and Strategy

+Three Elective courses

Area of Emphasis

Students who choose to take 2 elective courses in either Marketing, Finance, Management, Health Care Administration, or Human Resources in addition to the functional study courses can receive a concentration in that functional area.

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 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 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: COEPD

Dept/Division: Elementary and Secondary Education

Contact Person: Tina Allen

Phone: 68958

Rationale
for Request(May attach
separate page
if needed)

The Post Bac Certification Program (PBC) is designed to encourage students to come back and finish the MAT program. Because of changes in certification requirements by the WVDE, the Praxis exams required for admission into both the Post Bac and MAT programs were changed effective Fall 2014 to require the Praxis CORE exam. Because of this change, PBC students admitted to the PBC program prior to Fall 2014 under the previous Praxis requirement do not meet the admission requirements for the MAT without taking the Praxis CORE. This change will add an exception to the MAT admission requirements that will exempt students who fall into this category from the Praxis CORE if they have completed the PBC program at Marshall and have already received West Virginia Teaching License without having to take the additional Praxis they no longer need for certification.

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 <u>Tina Allen</u> <u>Yon A. Heaton</u>	Date <u>1/15/15</u>
Registrar <u>Roberta Ingusa</u>	Date <u>1/23/15</u>
College Curriculum Committee Chair <u>Sandra S. Stroebel PhD</u> (or Dean if no college curriculum committee) <u>for Lisa Burton, Chair</u>	Date <u>2/11/15</u>
Graduate Council Chair <u>Christofero</u>	Date <u>3/30/15</u>

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

Request for Graduate Non-Curricular Changes-Page 2

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

See attached.

apply-for-admission Please note that all admissions documents must be submitted to Graduate Admissions before an applicant will be considered for admission.

2. In addition to university admission requirements, applicants must have an overall Grade Point Average (GPA) of 2.70 or higher on a 4.0 scale for all previously completed coursework and a GPA of 2.70 in the content area, must meet the Praxis Core requirement, and must submit Graduate Record (GRE) or Miller Analogies Test (MAT) scores with a required minimum total score of 286 on the GRE verbal and quantitative sections (or the equivalent on the GRE prior to Fall 2011), or a minimum score of 387 on the MAT.
3. An applicant may qualify for an exemption of the Praxis Core if he or she has an enhanced ACT score of 26 or higher, a revised SAT score of 1170 or higher, or a master's degree or higher.
4. Applicants must take and pass all three subtests (reading, writing and math) of the Praxis Core prior to being admitted to the MAT program. The required Praxis Core scores are Reading = 156, Writing = 162, and Math = 150.
5. Students may enroll in graduate courses only after they have been fully admitted to the university and the MAT program. All students must maintain a cumulative Grade Point Average of 3.0.
6. A Plan of Study approved by the student's advisor must be submitted for approval to the Graduate College Dean before the student registers for his or her 12th semester hour. The Plan of Study is a student's "blueprint" for completing graduation requirements.
7. In the last semester of the program, students will be enrolled in EDF 677, MAT Level III Clinical Experience, a 15 week, full-time student teaching experience under the direct supervision of a certified teacher(s). Prerequisites for student teaching include the following: 3.0 GPA in all graduate MAT courses; completion of at least 90% of content courses (100% recommended); completion of EDF 537 and EDF 637, Level I and II Clinical Experiences; completion of all MAT coursework and the Praxis content test(s)
8. Before a candidate may apply for certification/licensure, he or she must take and pass the Praxis, Principles of Learning and Teaching (PLT) Grades 7-12. The PLT may be taken during or following the final semester in the MAT program.
9. Upon completion of the MAT program and all testing requirements, the student should apply for licensure. The teaching license is awarded by the West Virginia Department of Education; however, the candidate must be recommended for licensure by the institution.

Program Options and Degree Requirements: Master of Arts in Teaching

1. Master of Arts in Teaching - Grades PreK-Adult

- Art Education
- Music Education
- Wellness

Foundations of Education and Technology..... 15 Hours

Research and Writing (3 hrs.)

EDF 621 Educational Research and Writing OR

EDF 625 Qualitative Research in Education

Social and Cultural Foundations (3 hrs.)

EDF 665 Sociology of American Schools OR

EDF 615 History of Education in the United States

Development or Psychology (3 hrs.)

EDF 616 Advanced Studies in Human Development OR

EDF 619, Educational Psychology

EDF 537 Clinical I - Lab to accompany EDF 616 or EDF 619

Instructional Technology (3 hrs.)

CIEC 534 Applications Software in the Classroom Curriculum Area OR

CIEC 600 Instructional Design and Technology OR

CIEC 635 Using the Internet in the Classroom

Evaluation or Assessment (3 hrs.)

EDF 612 Educational Evaluation

EDF 636 Classroom Assessment

Curriculum and Instruction 24 Hours

CI 503 Methods and Materials of Teaching
in the Middle Childhood Grades

CISP 510 Intro. to Instructional Practices/Exceptional Children

(continued)

Request for Graduate Non-Curricular Changes-Page 3

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in the Middle Childhood Grades

CISP 510 Intro. to Instructional Practices/Exceptional Children

(continued)

Graduate Council
Request for 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. (May attach separate page if needed)

See attached

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- Music Education
- Wellness

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EDF 665 Sociology of American Schools OR

EDF 615 History of Education in the United States

Development or Psychology (3 hrs.)

EDF 616 Advanced Studies in Human Development OR

EDF 619, Educational Psychology

EDF 537 Clinical I - Lab to accompany EDF 616 or EDF 619

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CIEC 534 Applications Software in the Classroom Curriculum Area OR

CIEC 600 Instructional Design and Technology OR

CIEC 635 Using the Internet in the Classroom

Evaluation or Assessment (3 hrs.)

EDF 612 Educational Evaluation

EDF 636 Classroom Assessment

Curriculum and Instruction 24 Hours

CI 503 Methods and Materials of Teaching
in the Middle Childhood Grades

CISP 510 Intro. to Instructional Practices/Exceptional Children

(continued)

Graduate Council Request for Non-Curricular Changes-Page 5

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

Type of change request:
Department:
Degree program:
Effective date (*Fall/Spring/Summer, Year*)

Type of request: Catalog change
Department: Elementary and Secondary Education
Degree program: Master of Arts in Teaching
Effective date: Spring 2015

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 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 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: COEPD _____

Dept/Division: Elementary and Secondary Education _____

Contact Person: Tina Allen _____

Phone: 68958 _____

Rationale for Request

Due to limited enrollments and decreasing resources, preparation for licensure areas of Latin, French, Oral Communications, and Journalism will no longer be offered for either graduate or undergraduate licensure programs. This document is to make the appropriate changes in the graduate catalog.

(May attach separate page if needed)

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	<u>Shirley L. Allen</u> <u>Joni A. Hutton</u>	Date	<u>1/15/15</u>
Registrar	<u>Roberta Ferguson</u>	Date	<u>1/23/15</u>
College Curriculum Committee Chair (or Dean if no college curriculum committee)	<u>Sandra S. Stroebel PhD</u> <u>for Lisa Burton, Chair</u>	Date	<u>2/11/15</u>
Graduate Council Chair	<u>Tracy Christofero</u>	Date	<u>3/30/15</u>

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

Request for Graduate Non-Curricular Changes-Page 2

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

See attached.

- CISP 521 Children with Exceptionalities
- CI 515 Integrated Methods and Materials
- EDF 637 Clinical II - Lab to accompany CI 515
- CI 624 Advanced Instructional Strategies
- CI 631 Current Influences on Early Childhood
- CIRG 644 Literacy in the Content Area
- *EDF 677 Clinical III - Student Teaching

In addition to the preceding courses, students must also complete all courses in their teaching specialization.

TOTAL 39 Hours

*Requires minimum of 90% completion of content courses and passing score(s) on the Praxis content examination(s).

2. Master of Arts in Teaching - Grades 5-Adult

- French
- English
- Latin (second certification area only)
- Mathematics
- Oral Communications (Speech) (second certification area only)
- General Science
- Social Studies
- Spanish

Foundations of Education and Technology 15 Hours

Research and Writing (3 hrs.)

- EDF 621 Educational Research and Writing OR
- EDF 625 Qualitative Research in Education

Social and Cultural Foundations (3 hrs.)

- EDF 665 Sociology of American Schools OR
- EDF 615 History of Education in the United States

Development or Psychology (3 hrs.)

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- EDF 619, Educational Psychology
- EDF 537 Clinical I - Lab to accompany EDF 616 or EDF 619

Instructional Technology (3 hrs.)

- CIEC 534 Applications Software in the Classroom Curriculum Area
- CIEC 600 Instructional Design and Technology
- CIEC 635 Using the Internet in the Classroom

Evaluation or Assessment (3 hrs.)

- EDF 612 Educational Evaluation
- EDF 636 Classroom Assessment

Curriculum and Instruction 24 Hours

- CI 501 Middle Childhood Curriculum
- CI 503 Methods and Materials of Teaching
in the Middle Childhood Grades
- CISP 510 Intro. to Instructional Practices/Exceptional Children
- CISP 521 Children with Exceptionalities
- CI 515 Integrated Methods and Materials
- EDF 637 Clinical II - Lab to accompany CI 515
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CIRG 644 Literacy in the Content Area
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TOTAL 39 Hours

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3. Master of Arts in Teaching - Grades 9-Adult

- Biology
- Chemistry
- Journalism (second certification area only)
- Physics

Foundations of Education and Technology..... 15 Hours

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CISP 521 Children with Exceptionalities

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CI 549 Instructional and Classroom Management
in Secondary Education

EDF or CI Elective (3 hrs.)

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Post-Baccalaureate Teacher Certificate Program

In West Virginia the license to teach is granted by the West Virginia Department of Education and is typically issued upon the completion of a four-year undergraduate program of study that included content and professional education courses. The Post-Baccalaureate Teacher Certificate (PBC) program offers an accelerated route to teacher certification for persons who already have undergraduate degrees in content areas such as chemistry, music, French, and other liberal and fine arts, or professional fields. Using the previously completed content courses as a foundation, this program provides the required professional education courses at the graduate level. Additional undergraduate classes may be needed in the content area.

Upon successful completion of the PBC program, all content courses, and testing requirements, the candidate earns a recommendation to the West Virginia Department of Education for a teaching certificate at the secondary level and is eligible to apply for a certificate from the university. The PBC does not include Elementary Education or Special Education certification.

Admission to PBC and Licensure Requirements

1. Candidates must request a transcript analysis through a certification officer either in Huntington or South Charleston. An unofficial copy of the transcript may be used for the analysis. The analysis will identify the courses that can be used to meet content licensure requirements and the list of additional courses needed. Candidates must have at least 90% of the required content courses.
2. Candidates deciding to apply to the program after reviewing the transcript analysis should follow the admissions process described in this catalog or at the Graduate Admissions website at www.marshall.edu/graduate/admissions/how-to-apply-for-admission Students should apply as Certificate/Professional Development students and select the Post-Baccalaureate Teacher Certificate on the admissions form. Please note that all admissions documents must be submitted to Graduate Admissions before an applicant will be considered for admission.
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Program Requirements

Foundations of Education..... 6 hours

- EDF 616 Advanced Studies in Human Development OR
- EDF 619, Educational Psychology
- EDF 537 Clinical I - Lab to accompany EDF 616 or EDF 619
- EDF 612 Educational Evaluation OR
- EDF 636 Classroom Assessment

Curriculum and Instruction 12 Hours

- CISP 510 Intro. to Instructional Practices/Exceptional Children
- CISP 521 Children with Exceptionalities
- CIRG 644 Literacy in the Content Area
- CI 515 Integrated Methods and Materials
- EDF 637 Clinical II - Lab to accompany CI 515

Technology.....	3 Hours
CIEC 534 Applications Software in the Classroom Curriculum Area OR	
CIEC 600 Instructional Design and Technology OR	
CIEC 635 Using the Internet in the Classroom	
Supervised Student Teaching	3 Hours
*EDF 677 Clinical III - Student Teaching	
Total	24 Hours

Eligibility for Student Teaching: Students must successfully complete the courses listed above, the appropriate Praxis content knowledge test(s), and have 90% of their content requirements completed prior to enrolling for supervised student teaching.

Eligibility for Licensure: Students must meet content requirements, professional education requirements, and testing requirements. Testing requirements include the appropriate Praxis content knowledge test(s), and the Principles of Learning and Teaching (PLT). Students who apply for licensure from the West Virginia Department of Education are required to submit to the department a fingerprint card for federal and state background checks.

Certification Options:

- Art Education, grades PreK-Adult
- Biological Science, grades 9-Adult
- Chemistry, grades 9-Adult
- English, grades 5-Adult
- French, grades 5-Adult
- General Science, grades 5-Adult
- Journalism, grades 9-Adult (must be taken with another certification area)
- Latin, grades 5-Adult (must be taken with another certification area)
- Mathematics, grades 5-Adult
- Music, grades PreK-Adult
- Oral Communications, grades 5-Adult (must be taken with another certification area)
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- Social Studies, grades 5-Adult
- Spanish, grades 5-Adult
- Wellness, grades PreK-Adult

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- CISP 521 Children with Exceptionalities
- CIRG 644 Literacy in the Content Area
- CI 515 Integrated Methods and Materials
- EDF 637 Clinical II - Lab to accompany CI 515

Technology.....	3	Hours
CIEC 534 Applications Software in the Classroom Curriculum Area OR		
CIEC 600 Instructional Design and Technology OR		
CIEC 635 Using the Internet in the Classroom		
Supervised Student Teaching	3	Hours
*EDF 677 Clinical III - Student Teaching		
Total	24	Hours

Eligibility for Student Teaching: Students must successfully complete the courses listed above, the appropriate Praxis content knowledge test(s), and have 90% of their content requirements completed prior to enrolling for supervised student teaching.

Eligibility for Licensure: Students must meet content requirements, professional education requirements, and testing requirements. Testing requirements include the appropriate Praxis content knowledge test(s), and the Principles of Learning and Teaching (PLT). Students who apply for licensure from the West Virginia Department of Education are required to submit to the department a fingerprint card for federal and state background checks.

Certification Options:

- Art Education, grades PreK-Adult
- Biological Science, grades 9-Adult
- Chemistry, grades 9-Adult
- English, grades 5-Adult
- ~~French, grades 5-adult~~
- General Science, grades 5-Adult
- ~~Journalism, grades 9-Adult (must be taken with another certification area)~~
- ~~Latin, grades 5-Adult (must be taken with another certification area)~~
- Mathematics, grades 5-Adult
- Music, grades PreK-Adult
- ~~Oral Communication, grades 5-Adult (must be taken with another certification area)~~
- Physics, grades 9-Adult
- Social Studies, grades 5-Adult
- Spanish, grades 5-Adult
- Wellness, grades PreK-Adult

Graduate Council
Request for 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. (May attach separate page if needed)

See attached

- CISP 521 Children with Exceptionalities
- CI 515 Integrated Methods and Materials
- EDF 637 Clinical II - Lab to accompany CI 515
- CI 624 Advanced Instructional Strategies
- CI 631 Current Influences on Early Childhood
- CIRG 644 Literacy in the Content Area
- *EDF 677 Clinical III - Student Teaching

In addition to the preceding courses, students must also complete all courses in their teaching specialization.

TOTAL 39 Hours

*Requires minimum of 90% completion of content courses and passing score(s) on the Praxis content examination(s).

- 2. Master of Arts in Teaching - Grades 5-Adult
 - English
 - Mathematics
 - General Science
 - Social Studies
 - Spanish

Foundations of Education and Technology..... 15 Hours

Research and Writing (3 hrs.)

- EDF 621 Educational Research and Writing OR
- EDF 625 Qualitative Research in Education

Social and Cultural Foundations (3 hrs.)

- EDF 665 Sociology of American Schools OR
- EDF 615 History of Education in the United States

Development or Psychology (3 hrs.)

- EDF 616 Advanced Studies in Human Development OR
- EDF 619, Educational Psychology
- EDF 537 Clinical I - Lab to accompany EDF 616 or EDF 619

Instructional Technology (3 hrs.)

- CIEC 534 Applications Software in the Classroom Curriculum Area
- CIEC 600 Instructional Design and Technology
- CIEC 635 Using the Internet in the Classroom

Evaluation or Assessment (3 hrs.)

- EDF 612 Educational Evaluation
- EDF 636 Classroom Assessment

Curriculum and Instruction 24 Hours

- CI 501 Middle Childhood Curriculum
- CI 503 Methods and Materials of Teaching
in the Middle Childhood Grades
- CISP 510 Intro. to Instructional Practices/Exceptional Children
- CISP 521 Children with Exceptionalities
 - CI 515 Integrated Methods and Materials
 - EDF 637 Clinical II - Lab to accompany CI 515
 - CI 624 Advanced Instructional Strategies

CIRG 644 Literacy in the Content Area
*EDF 677 Clinical III - Student Teaching

In addition to the above courses, students must also complete all courses in their teaching specialization.

TOTAL 39 Hours

*Requires minimum of 90% completion of content courses and passing score(s) on Praxis content examination(s).

3. Master of Arts in Teaching - Grades 9-Adult

- Biology
- Chemistry
- Physics

Foundations of Education and Technology..... 15 Hours

Research and Writing (3 hrs.)

EDF 621 Educational Research and Writing OR

EDF 625 Qualitative Research in Education

Social and Cultural Foundations (3 hrs.)

EDF 665 Sociology of American Schools OR

EDF 615 History of Education in the United States

Development or Psychology (3 hrs.)

EDF 616 Advanced Studies in Human Development OR

EDF 619, Educational Psychology

EDF 537 Clinical I - Lab to accompany EDF 616 or EDF 619

Instructional Technology (3 hrs.)

CIEC 534 Applications Software in the Classroom Curriculum Area OR

CIEC 600 Instructional Design and Technology OR

CIEC 635 Using the Internet in the Classroom

Evaluation or Assessment (3 hrs.)

EDF 612 Educational Evaluation OR

EDF 636 Classroom Assessment

Curriculum and Instruction 24 Hours

CISP 510 Intro. to Instructional Practices/Exceptional Children

CISP 521 Children with Exceptionalities

CI 515 Integrated Methods and Materials

EDF 637 Clinical II - Lab to accompany CI 515

CI 624 Advanced Instructional Strategies

CIRG 644 Literacy in the Content Area

CI 549 Instructional and Classroom Management
in Secondary Education

EDF or CI Elective (3 hrs.)

*EDF 677 Clinical III - Student Teaching

In addition to the above courses, students must also complete all courses in their teaching specialization.

TOTAL 39 Hours

*Requires minimum of 90% completion of content courses and passing score on Praxis content examination.

Post-Baccalaureate Teacher Certificate Program

In West Virginia the license to teach is granted by the West Virginia Department of Education and is typically issued upon the completion of a four-year undergraduate program of study that included content and professional education courses. The Post-Baccalaureate Teacher Certificate (PBC) program offers an accelerated route to teacher certification for persons who already have undergraduate degrees in content areas such as chemistry, music, French, and other liberal and fine arts, or professional fields. Using the previously completed content courses as a foundation, this program provides the required professional education courses at the graduate level. Additional undergraduate classes may be needed in the content area.

Upon successful completion of the PBC program, all content courses, and testing requirements, the candidate earns a recommendation to the West Virginia Department of Education for a teaching certificate at the secondary level and is eligible to apply for a certificate from the university. The PBC does not include Elementary Education or Special Education certification.

Admission to PBC and Licensure Requirements

1. Candidates must request a transcript analysis through a certification officer either in Huntington or South Charleston. An unofficial copy of the transcript may be used for the analysis. The analysis will identify the courses that can be used to meet content licensure requirements and the list of additional courses needed. Candidates must have at least 90% of the required content courses.
2. Candidates deciding to apply to the program after reviewing the transcript analysis should follow the admissions process described in this catalog or at the Graduate Admissions website at www.marshall.edu/graduate/admissions/how-to-apply-for-admission Students should apply as Certificate/Professional Development students and select the Post-Baccalaureate Teacher Certificate on the admissions form. Please note that all admissions documents must be submitted to Graduate Admissions before an applicant will be considered for admission.
3. In addition to university admissions requirements, applicants must have an overall GPA of 2.70 and a GPA of 2.70 in the content area, and must meet the Praxis Core requirement.
4. An applicant may qualify for an exemption of the Praxis Core if he or she has an enhanced ACT score of 26 or higher, a revised SAT score of 1170 or higher, or a master's degree or higher.
5. Applicants must take and pass all three subtests (reading, writing and math) of the Praxis Core prior to being admitted to the PBC program. The required Praxis scores are Reading = 156, Writing = 162, and Math = 150.
6. Students may enroll in graduate courses only after they have been fully admitted to the PBC program. All students must maintain a cumulative Grade Point Average of 3.0.
7. In the last semester of the program students will be enrolled in EDF 677, MAT Level III Clinical Experience, a 15 week, full-time student teaching experience under the direct supervision of a certified teacher(s). Prerequisites for student teaching include the following: 3.0 GPA in all graduate PBC courses; completion of at least 90% of content courses (100% recommended); completion of EDF 537 and EDF 637, Level I and II Clinical Experiences; completion of all PBC coursework and the Praxis content test(s).
8. Before a candidate may apply for certification/licensure, he or she must take and pass the Praxis Principles of Learning and Teaching (PLT) Grades 7-12. The PLT may be taken during or following the final semester in the PBC program.
9. Upon completion of the PBC program and all testing requirements, the student should apply for licensure. The teaching license is awarded by the West Virginia Department of Education; however, the candidate must be recommended for licensure by the institution

Program Requirements

Foundations of Education..... 6 hours

- EDF 616 Advanced Studies in Human Development OR
- EDF 619, Educational Psychology
- EDF 537 Clinical I - Lab to accompany EDF 616 or EDF 619
- EDF 612 Educational Evaluation OR
- EDF 636 Classroom Assessment

Curriculum and Instruction 12 Hours

- CISP 510 Intro. to Instructional Practices/Exceptional Children
- CISP 521 Children with Exceptionalities
- CIRG 644 Literacy in the Content Area
- CI 515 Integrated Methods and Materials
- EDF 637 Clinical II - Lab to accompany CI 515

Technology.....	3	Hours
CIEC 534 Applications Software in the Classroom Curriculum Area OR		
CIEC 600 Instructional Design and Technology OR		
CIEC 635 Using the Internet in the Classroom		
Supervised Student Teaching	3	Hours
*EDF 677 Clinical III - Student Teaching		
Total	24	Hours

Eligibility for Student Teaching: Students must successfully complete the courses listed above, the appropriate Praxis content knowledge test(s), and have 90% of their content requirements completed prior to enrolling for supervised student teaching.

Eligibility for Licensure: Students must meet content requirements, professional education requirements, and testing requirements. Testing requirements include the appropriate Praxis content knowledge test(s), and the Principles of Learning and Teaching (PLT). Students who apply for licensure from the West Virginia Department of Education are required to submit to the department a fingerprint card for federal and state background checks.

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- Chemistry, grades 9-Adult
- English, grades 5-Adult
- General Science, grades 5-Adult
- Mathematics, grades 5-Adult
- Music, grades PreK-Adult
- Physics, grades 9-Adult
- Social Studies, grades 5-Adult
- Spanish, grades 5-Adult
- Wellness, grades PreK-Adult

Graduate Council Request for Non-Curricular Changes-Page 5

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

Type of change request:

Department:

Degree program:

Effective date (*Fall/Spring/Summer, Year*)

Type of request: Catalog change
Department: Elementary and Secondary Education
Degree program: Master of Arts in Teaching
Effective date: Spring 2015

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 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 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: COEPD

Dept/Division: School Psychology

Contact Person: Sandra S. Stroebel

Phone: 304-746-2032

Rationale
for Request

There is an increased need for school psychology students to provide more mental health services in the schools. We would like to add a counseling course in order to improve their skills. In order to not increase the number of hours for graduation, we will be dropping CISP 535 general special education programming from the required list of courses.

(May attach
separate page
if needed)

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 <u>Sandra S. Stroebel PhD</u>	Date <u>2/5/15</u>
Registrar <u>Roberta Ferguson</u>	Date <u>2/9/15</u>
College Curriculum Committee Chair <u>Copy for Lisa Burton, Chair</u> (or Dean if no college curriculum committee)	Date <u>2/11/15</u>
Graduate Council Chair <u>Tracy Christofero</u>	Date <u>3/30/15</u>

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

Request for Graduate Non-Curricular Changes-Page 2

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

See Attached

Request for Graduate Non-Curricular Changes-Page 3

2. Edits to 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.

**Graduate Council
Request for 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. (May attach separate page if needed)

see attached

Graduate Council Request for Non-Curricular Changes-Page 5

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

Type of change request:

Department:

Degree program:

Effective date (*Fall/Spring/Summer, Year*)

Type of change request: Catalog change
Department: School Psychology
Degree program: EdS
Effective date (*Fall/Spring/Summer, Year*): Fall 2015

SCHOOL PSYCHOLOGY, Ed.S.

Program Description

The Ed.S. program in School Psychology is designed to prepare students to meet the Department of Education requirements for certification in West Virginia and other states. It is approved by the National Association of School Psychologists (NASP). Prior to pursuing the 42 hours of required coursework and field experiences that lead to the Ed.S. in School Psychology, a student must first complete the M.A. degree in Psychology with an area of emphasis in School Psychology, described in the Psychology section of this catalog. After successfully completing the first semester of the master's degree program, students may apply to the Ed.S. program. Students already possessing graduate degrees in psychology, counseling or education do not need to obtain the M.A. degree in Psychology with an area of emphasis in School Psychology. When these students apply to the Ed.S. in School Psychology program, they will be considered for advanced standing based upon a review of coursework, grades, and test scores by the School Psychology faculty.

Admission Requirements

Admission is competitive because of the limited number of available internships. Applicants should follow the admissions process described in this catalog or at the Graduate Admissions website at www.marshall.edu/graduate/admissions/how-to-apply-for-admission.

In addition, applicants must:

- submit a sample of their professional writing (a scholarly paper on any subject) and a statement of their professional goals (1000 words or fewer). Submit all materials to Graduate Admissions.

Creating a diverse student body is a priority and minority applicants are encouraged to apply. A limited number of graduate assistantships are available. Students can be accepted into the school psychology program throughout the school year; however, school psychology competency classes begin in the fall semester of each academic year.

Program Requirements

During the second semester in the master's degree in psychology with an emphasis in School Psychology, students will apply for admission to the Ed.S. in School Psychology program. Students are admitted to the Ed.S. program with the expectation that they will complete the program within three to five years, depending on the number of classes in which they enroll each semester. Students are expected to enroll in all three semesters. Failure to make the expected amount of progress may result in reassignment to another internship year.

The internship requires a commitment to a school system for a full academic year and is 1200 hours (12 credit hours). A maximum of 18 students will be admitted to this final-year experience. This paid internship must occur within a school setting and meet stringent criteria specified by the program and the National Association of School Psychologists. In addition, students must complete a thesis or program evaluation and earn a passing score on Praxis II Specialty Area Test in School Psychology before graduation.

Plan of Study: Ed.S. in School Psychology

Requirements:

SPSY 603 Professional Competence II: Professional School Psychology

SPSY 620 Indirect Service Delivery II: Primary Prevention

SPSY 622 Data Based Decision Making II

SPSY 624 Data Based Decision Making III

SPSY 720 Counseling with Youth: Advanced Topics

SPSY 738 School Psychology Practicum I

SPSY 739 School Psychology Practicum II

SPSY 740 School Psychology Practicum III

SPSY 745 Internship in School Psychology

SPSY 750 Research III: Thesis Research

SPSY 751 Program Evaluation

CISP 535 Educational Foundations I: General Special Education Programming

Defend Thesis

SPSY 745 Internship

SPSY 745 Internship

Take Praxis II Specialty Examination in School Psychology

Total of 42 hours required

SCHOOL PSYCHOLOGY, Ed.S.

Program Description

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Plan of Study: Ed.S. in School Psychology

Requirements:

SPSY 603 Professional Competence II: Professional School Psychology

SPSY 620 Indirect Service Delivery II: Primary Prevention

SPSY 622 Data Based Decision Making II

SPSY 624 Data Based Decision Making III

SPSY 720 Counseling with Youth: Advanced Topics

SPSY 738 School Psychology Practicum I

SPSY 739 School Psychology Practicum II

SPSY 740 School Psychology Practicum III

SPSY 745 Internship in School Psychology

SPSY 750 Research III: Thesis Research

SPSY 751 Program Evaluation

~~CISP 535 Educational Foundations I: General Special Education Programming~~

CIRG 636 Educational Foundations II: Developmental Reading

Defend Thesis

~~SPSY 745 Internship~~

~~SPSY 745 Internship~~

Take Praxis II Specialty Examination in School Psychology

Total of 42 hours required

SCHOOL PSYCHOLOGY, Ed.S.

Program Description

The Ed.S. program in School Psychology is designed to prepare students to meet the Department of Education requirements for certification in West Virginia and other states. It is approved by the National Association of School Psychologists (NASP). Prior to pursuing the 42 hours of required coursework and field experiences that lead to the Ed.S. in School Psychology, a student must first complete the M.A. degree in Psychology with an area of emphasis in School Psychology, described in the Psychology section of this catalog. After successfully completing the first semester of the master's degree program, students may apply to the Ed.S. program. Students already possessing graduate degrees in psychology, counseling or education do not need to obtain the M.A. degree in Psychology with an area of emphasis in School Psychology. When these students apply to the Ed.S. in School Psychology program, they will be considered for advanced standing based upon a review of coursework, grades, and test scores by the School Psychology faculty.

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Program Requirements

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The internship requires a commitment to a school system for a full academic year and is 1200 hours (12 credit hours). A maximum of 18 students will be admitted to this final-year experience. This paid internship must occur within a school setting and meet stringent criteria specified by the program and the National Association of School Psychologists. In addition, students must complete a thesis or program evaluation and earn a passing score on Praxis II Specialty Area Test in School Psychology before graduation.

Plan of Study: Ed.S. in School Psychology

Requirements:

SPSY 603 Professional Competence II: Professional School Psychology

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SPSY 750 Research III: Thesis Research

SPSY 751 Program Evaluation

CIRG 636 Educational Foundations II: Developmental Reading

Defend Thesis

Take Praxis II Specialty Examination in School Psychology

Total of 42 hours required

***Literacy Education (18 hours)**

The Literacy Education Certificate is intended for educators who hold an initial teaching license and wish to become highly qualified teachers of reading. It consists of six courses, with embedded field-experiences and leads to a reading endorsement at either the elementary or secondary level.

Admission Requirements

1. An initial undergraduate degree in education from a regionally accredited college or university; and
2. A valid teaching license

Program Requirements

- CIRG 636 Developmental Reading
- CIRG 653 Literacy Acquisition
- CIRG 644 Content Literacy
- CIRG 615 Writing in the Literacy Curriculum
- CIRG 622 The Use of Technology for Literacy Instruction
- CIRG 637 Literacy Assessment

A series of performance assessments completed as candidates move through the program.

+Family Literacy (12 hours)

Admission Requirements

A relevant undergraduate degree, as determined by the Literacy Education program, from a regionally accredited college or university is needed for admission to the program.

Program Requirements

- CIRG 653 Literacy Acquisition
- CIRG 651 Principles of Family Literacy
- CIRG 652 Implementing and Evaluating a Family Literacy Program
- CI 634 Language and Cognition in Early Childhood

SCHOOL PSYCHOLOGY, Ed.S.

Program Description

The Ed.S. program in School Psychology is designed to prepare students to meet the Department of Education requirements for certification in West Virginia and other states. It is approved by the National Association of School Psychologists (NASP).

Prior to pursuing the 42 hours of required coursework and field experiences that lead to the Ed.S. in School Psychology, a student must first complete the M.A. degree in Psychology with an area of emphasis in School Psychology, described in the Psychology section of this catalog. After successfully completing the first semester of the master's degree program, students may apply to the Ed.S. program.

Students already possessing graduate degrees in psychology, counseling or education do not need to obtain the M.A. degree in Psychology with an area of emphasis in School Psychology. When these students apply to the Ed.S. in School Psychology program, they will be considered for advanced standing based upon a review of coursework, grades, and test scores by the School Psychology faculty.

Admission Requirements

Admission is competitive because of the limited number of available internships. Applicants should follow the admissions process described in this catalog or at the Graduate Admissions website at www.marshall.edu/graduate/admissions/how-to-apply-for-admission.

Plans of study marked with an asterisk () may be used as endorsements for teaching certification. Endorsement programs are available only to teachers who hold a valid professional license in any area other than the one for which endorsement is desired.

+Plans of study marked with a plus sign (+) may be used as graduate certificate programs. Certificate coursework may be taken as a stand-alone program.

In addition, applicants must:

- submit a sample of their professional writing (a scholarly paper on any subject) and a statement of their professional goals (1000 words or fewer). Submit all materials to Graduate Admissions.

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- CIRG 636 Educational Foundations II: Developmental Reading
- Defend Thesis*
- SPSY 745 Internship
- SPSY 745 Internship

Take Praxis II Specialty Examination in School Psychology

Total of 42 hours required

SPECIAL EDUCATION, M.A.

Areas of Emphasis

Autism (Huntington)

Deaf and Hard of Hearing (South Charleston)

Gifted (Huntington)

Multi-Categorical Special Education (South Charleston and Huntington)

Preschool Special Education (Huntington)

Teaching Visually Impaired (South Charleston)

(continued)

Request for Graduate Non-Curricular Changes

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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 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: COEPD

Dept/Division: Special Education

Contact Person: Missy Reed

Phone: 62850

Rationale
for Request

Due to limited enrollment and decreasing resources, admission to the major of "Gifted Education" is being suspended. This action is intended to remove reference to this option from the catalog.

(May attach
separate page
if needed)

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 <u>Melise A. Reed</u>	Date <u>1/30/2015</u>
Registrar <u>Roberta Ferguson</u>	Date <u>2/9/15</u>
College Curriculum Committee Chair <u>Sandra S. Stroebel PhD</u> (or Dean if no college curriculum committee) <u>for Lisa Bunting Chair</u>	Date <u>2/11/15</u>
Graduate Council Chair <u>Christofero</u>	Date <u>3/30/15</u>

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

Request for Graduate Non-Curricular Changes-Page 2

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

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Plan of Study: Ed.S. in School Psychology

Requirements:

- SPSY 603 Professional Competence II: Professional School Psychology
- SPSY 620 Indirect Service Delivery II: Primary Prevention
- SPSY 622 Data Based Decision Making II
- SPSY 624 Data Based Decision Making III
- SPSY 738 School Psychology Practicum I
- SPSY 739 School Psychology Practicum II
- SPSY 740 School Psychology Practicum III
- SPSY 745 Internship in School Psychology
- SPSY 750 Research III: Thesis Research
- SPSY 751 Program Evaluation
- CISP 535 Educational Foundations I: General Special Education Programming
- CIRG 636 Educational Foundations II: Developmental Reading
- Defend Thesis*
- SPSY 745 Internship
- SPSY 745 Internship

Take Praxis II Specialty Examination in School Psychology

Total of 42 hours required

SPECIAL EDUCATION, M.A.

Areas of Emphasis

Autism (Huntington)

Deaf and Hard of Hearing (South Charleston)

Gifted (Huntington)

Multi-Categorical Special Education (South Charleston and Huntington)

Preschool Special Education (Huntington)

Teaching Visually Impaired (South Charleston)

(continued)

Admission Requirements for Special Education M.A.

All applicants (including those seeking admission as professional development (certification only), should follow the admissions process described in this catalog or at the Graduate Admissions website at www.marshall.edu/graduate/admissions/how-to-apply-for-admission

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Plan of Study

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Program of Study - M.A. in Special Education

1. Master's Degree Requirements9 hrs.

- CISP 611 Special Education Research Part I
- CISP 615 Special Education Research Part II
- CISP 627 Trends and Issues in Special Education OR
- CISP 629 Special Education: Seminar

2. Special Education Core: 18 hrs.

- CISP 520 Introduction to Exceptional Children
 - CIEC 534 Applications Software in the Classroom Curriculum Area
 - CISP 606 Reading Strategies for Exceptional Children
 - CISP 607 Math Strategies for Exceptional Children
 - CIRG 644 Literacy in the Content Area
 - CISP 626 Special Education: Diagnostic-Clinical Practices
- (Note: CIEC 534, CIRG 644, CISP 606, and CISP 607 are not required for the degree in gifted)

3. Certification Area (select one)

Autism

- CISP 527 Introduction to Autism
- CISP 662 Instructional Characteristics of Autism
- CISP 664 Practicum in Autism

Behavioral Disorders

- CISP 645 Characteristics/Methods Emotionally Disturbed
- CISP 649 Special Education: Field Experiences: Emotional Disturbances

Deaf and Hard of Hearing (special education core not required)

- CIDH 501 American Sign Language (ASL) I
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- CIDH 506 Curriculum and Methods for Deaf and Hard of Hearing Students
- CIDH 601 Teaching Internship and Practicum (Deaf/Hard of Hearing) I (Residential)
- CIDH 602 Teaching Internship and Practicum (Deaf/Hard of Hearing) I (Local School District)

- CIDH 607, Development and Remediation of Reading, Writing, and Discourse for the Deaf and Hard of Hearing
- CISP 607 Math Strategies for Exceptional Students
- CIEC 534 Applications Software in the Classroom Curriculum Area
- Mentally Impaired
 - CISP 553 Characteristics/Methods Mentally Impaired
 - CISP 651 Field Experience: Mental Impairment (Mild/Moderate)
- Specific Learning Disabilities
 - CISP 523 Introduction to Learning Disabilities
 - CISP 646 Special Education: Field Experiences: Learning Disabilities
 - CISP 647 Characteristics/Methods Specific Learning Disabilities
- Gifted
 - CISP 526 Introduction to the Gifted
 - CISP 601 Psychological Foundations of Giftedness
 - CISP 602 Education of the Gifted
 - CISP 603 Field Experience: Gifted
- Vision Impaired (special education core not required)
 - CIVI 500 Introduction to Visual Impairments
 - CIVI 501 Reading and Writing Strategies/Instruction for Students with Visual Impairments
 - CIVI 502 Structures and Functions of the Human Visual Systems
 - CIVI 503 Assessment and Program Planning of Students with Visual Impairments
 - CIVI 504 Assessment and Program Planning of Students with Visual Impairments and Additional Disabilities
 - CIVI 600 Math Methods for Visually Impaired
 - CIVI 601 Practicum in Visual Impairment I
 - CIVI 602 Practicum in Visual Impairment II
 - CIVI 603 Basic Orientation and Mobility Skills
 - CIEC 534 Applications Software in the Classroom Curriculum Area
- Multicategorical
 - CISP 553 Characteristics/Methods Mentally Impaired
 - CISP 647 Characteristics/Methods Specific Learning Disabilities
 - CISP 645 Characteristics/Methods Emotionally Disturbed
 - CISP 655 Field Experience: Multicategorical: Mild/Moderate MI, LD, BD
- 4. Electives..... 0 - 9 hrs.
- Total hours..... 36-39 hrs.**
- 5. Preschool Special Education**
- General Education: 6 hrs.
 - EDF 621 Educational Research and Writing OR
 - EDF 625 Qualitative Research in Education
 - CISP 627 Trends and Issues in Special Education OR
 - CISP 629 Special Education: Seminar
- Early Childhood Education 6 hrs.
 - CI 632 Early Childhood Education: Early Childhood Programs
 - CI 634 Language and Cognition in Early Childhood
- Special Education: 27 hrs.
 - CISP 520 Introduction to Exceptional Children
 - CISP 529 Introduction to the Physically Handicapped
 - CISP 554 Working with Families of Exceptional Students
 - CISP 661 Introduction to Preschool Special Education
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 - CISP 665 Assessment in Preschool Special Education

(continued)

Request for Graduate Non-Curricular Changes-Page 3

2. Edits to 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.

In addition, applicants must:

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Creating a diverse student body is a priority and minority applicants are encouraged to apply. A limited number of graduate assistantships are available. Students can be accepted into the school psychology program throughout the school year; however, school psychology competency classes begin in the fall semester of each academic year.

Program Requirements

During the second semester in the master's degree in psychology with an emphasis in School Psychology, students will apply for admission to the Ed.S. in School Psychology program. Students are admitted to the Ed.S. program with the expectation that they will complete the program within three to five years, depending on the number of classes in which they enroll each semester. Students are expected to enroll in all three semesters. Failure to make the expected amount of progress may result in reassignment to another internship year.

The internship requires a commitment to a school system for a full academic year and is 1200 hours (12 credit hours). A maximum of 18 students will be admitted to this final-year experience. This paid internship must occur within a school setting and meet stringent criteria specified by the program and the National Association of School Psychologists. In addition, students must complete a thesis or program evaluation and earn a passing score on Praxis II Specialty Area Test in School Psychology before graduation.

Plan of Study: Ed.S. in School Psychology

Requirements:

SPSY 603	Professional Competence II: Professional School Psychology
SPSY 620	Indirect Service Delivery II: Primary Prevention
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SPSY 624	Data Based Decision Making III
SPSY 738	School Psychology Practicum I
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SPSY 740	School Psychology Practicum III
SPSY 745	Internship in School Psychology
SPSY 750	Research III: Thesis Research
SPSY 751	Program Evaluation
CISP 535	Educational Foundations I: General Special Education Programming
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<i>Defend Thesis</i>	
SPSY 745	Internship
SPSY 745	Internship

Take Praxis II Specialty Examination in School Psychology

Total of 42 hours required

SPECIAL EDUCATION, M.A.

Areas of Emphasis

Autism (Huntington)

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Admission Requirements for Special Education M.A.

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Program Requirements for Special Education M.A.

A master's degree may be earned with a specialization in any of the Areas of Emphasis listed below. Students without a background in education must acquire certification in regular education prior to endorsement in Special Education, or they can enter the Alternative Certification Program (see Section 6 under Program of Study). The Preschool Special Education endorsement is exempt from this requirement.

Plan of Study

A Plan of Study approved by the student's advisor must be submitted for approval to the Graduate College Dean before the student registers for his or her 12th semester hour. The Plan of Study is a student's "blueprint" for completing graduation requirements.

Program of Study - M.A. in Special Education

1. Master's Degree Requirements9 hrs.

- CISP 611 Special Education Research Part I
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- CISP 627 Trends and Issues in Special Education OR
- CISP 629 Special Education: Seminar

2. Special Education Core: 18 hrs.

- CISP 520 Introduction to Exceptional Children
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- (Note: CIEC 534, CIRG 644, CISP 606, and CISP 607 are not required for the degree in gifted)

3. Certification Area (select one)

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- CISP 527 Introduction to Autism
- CISP 662 Instructional Characteristics of Autism
- CISP 664 Practicum in Autism

Behavioral Disorders

- CISP 645 Characteristics/Methods Emotionally Disturbed
- CISP 649 Special Education: Field Experiences: Emotional Disturbances

Deaf and Hard of Hearing (special education core not required)

- CIDH 501 American Sign Language (ASL) I
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(continued)

Graduate Council
Request for 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. (May attach separate page if needed)

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(continued)

Graduate Council Request for Non-Curricular Changes-Page 5

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

Type of change request:

Department:

Degree program:

Effective date (*Fall/Spring/Summer, Year*)

Type: Catalog copy change
Dept.: Special Education, COEPD
Degree: Certification area for MA in Special Education
Effective date: Spring 2015

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 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 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: ScienceDept/Division: MathematicsContact Person: Alfred AkinsetePhone: 696-6010Rationale
for Request(May attach
separate page
if needed)

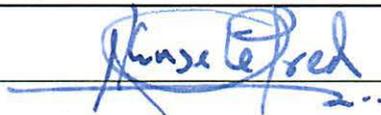
Revisions to the admissions requirements for the M.A. program in Mathematics.

- (1) GRE will become optional for application, but still required for Graduate Assistant applications.
- (2) Clarify admissions process for Graduate Assistantships.
- (3) Follow best practices recommended by Dean of the Graduate College.

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

1-28-2015

Registrar

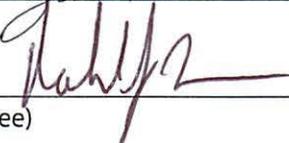


Date

1/29/15

College Curriculum Committee Chair

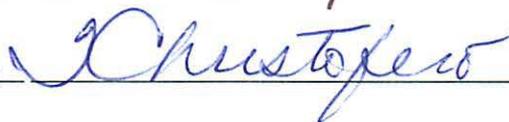
(or Dean if no college curriculum committee)



Date

2/10/15

Graduate Council Chair



Date

3/30/15

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

Request for Graduate Non-Curricular Changes-Page 2

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

Please see attached document "Current Catalog Description: 2014-2015 Catalog"

Request for Graduate Non-Curricular Changes-Page 3

2. Edits to 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.

**Graduate Council
Request for 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. (May attach separate page if needed)

Please see attached document "Revised Catalog Description – Clean Copy"

Graduate Council Request for Non-Curricular Changes-Page 5

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

Type of change request:

Department:

Degree program:

Effective date (*Fall/Spring/Summer, Year*)

Type of change request : Non-curricular

Department: Mathematics

Degree program: M.A.

Effective date: Fall 2015

Current Catalog Description: 2014-2015 Catalog

MATHEMATICS, M.A. □

Area of Emphasis in Statistics

Minor in Mathematics

Program Description

The Master of Arts degree in Mathematics is offered by the Department of Mathematics. This is a two-year program designed to prepare students for positions in industry, government agencies, or business; for further graduate study at the doctoral level, and for teaching positions at the secondary or two year college level.

NOTE: An area of emphasis in mathematics, Math through Algebra I, is offered by the M.A. degree programs in Elementary Education and Secondary Education. These programs, which are offered through the College of Education and Professional Development, are intended to meet the needs of public school teachers (K-12).

Area of Emphasis in Statistics

An area of emphasis in statistics is offered in the Department of Mathematics. The curriculum for the Master of Arts in Mathematics with an Area of Emphasis in Statistics prepares students with a solid background in both theoretical and applied statistics for positions in industry, government agencies, or business; for further graduate study at the doctoral level, and for teaching positions at the secondary or two-year college level. (See degree requirements that follow.)

Admission Requirements

Applicants should follow the admissions process described in the Graduate Catalog, or at the Graduate Admissions website at www.marshall.edu/graduate.

In addition:

- Applicants must also submit GRE scores to Graduate Admissions. The scores are considered when awarding graduate assistantships and during initial advising.
- To ensure full consideration for admission, applicants must submit duly completed applications, including all required admission credentials, to the Graduate Admissions Office at least two weeks before the beginning of the upcoming semester.
- Applicants wishing to be considered for the Graduate/Teaching Assistantship are advised to have all required credentials submitted by May 15 for the fall semester and by November 15 for the spring semester. □

Degree Requirements □

A Plan of Study approved by the department/program and the graduate dean must be filed in the Graduate College office before the student registers for the 12th semester hour. For graduation, a student is required to pass at least 36 approved credit hours, of which 18 credit hours must be at the 600 level. These 18 credit hours may include Special Topics, not more than 3 credit hours of Thesis (for students taking the thesis option), but

not Independent Study. Students must pass or be exempted from each of MTH 528 – Advanced Calculus II, MTH 546 – Probability and Statistics II, and MTH 552 – Modern Algebra II. Students may choose either to write and defend an acceptable thesis or pass a comprehensive oral examination. Hours from MTH 589 - Seminar do not count toward graduation. □

The specific coursework requirements for the program are:

- 18 credit hours of 600-level courses, including not more than 3 credit hours of Thesis but excluding Independent Study.
- 18 additional credit hours at the 500 level or higher, which will include MTH 528, 546, and 552 unless exempted. These additional credit hours may also include an optional 6 credit hours at the 500 level or higher from another department at Marshall offering a graduate program as a minor. □

Area of Emphasis in Statistics: To be awarded the M.A. in mathematics with statistics as an area of emphasis, the student must satisfy the graduation requirements specified above for the M.A. degree in the Department of Mathematics. In addition to passing or exemption from MTH 528, MTH 546, and MTH 550, students must take and pass MTH 661 and MTH 662, neither of which may be taken as Independent Study. Students must take at least 12 credit hours of mathematics courses at the 500 level or higher, not including probability and statistics courses. A student may choose to write and defend an acceptable thesis in the area of probability or statistics, or pass a comprehensive oral examination. A student choosing to write a thesis must take no fewer than 15 credit hours not including Thesis and Independent Study in probability or statistics courses. A student opting for the comprehensive oral examination must take no fewer than 18 credit hours not including Independent Study in probability or statistics courses.

Comprehensive Oral Exam: With the approval of the Assistant Chair for Graduate Studies, the student will select three graduate courses at the 600 level demonstrating a depth of knowledge in those areas of mathematics. For a student pursuing an area of emphasis in statistics, at least two of the courses must be chosen from the probability and statistics courses. The student will select, with the approval of the Assistant Chair for Graduate Studies, a committee consisting of three faculty members. The chairman of the Oral Examination Committee must have the level of Graduate Faculty Status as determined by the Graduate College.

Assistantships and Financial Support

Applicants wishing to be considered for the Graduate/Teaching Assistantship must submit a separate application form to the Assistant Chair for Graduate Studies. This application can be obtained from the Department of Mathematics. The application must be accompanied by three letters of reference and a personal statement.

For complete information on graduate assistantships please see www.marshall.edu/graduate.

Information on other financial support opportunities may be found on the Graduate College website.

Minor in Mathematics

The Department of Mathematics also offers a graduate minor in mathematics. A minor is earned by taking at least 6 credit hours in MTH-designated courses at the 500- or 600- level in Mathematics as approved by the student's advisor and the Assistant Chair for Graduate Studies in the Department of Mathematics.

Revised Catalog Description – With Markup

MATHEMATICS, M.A. □

Area of Emphasis in Statistics

Minor in Mathematics

Program Description

The Master of Arts degree in Mathematics is offered by the Department of Mathematics. This is a two-year program designed to prepare students for positions in industry, government agencies, or business; for further graduate study at the doctoral level, and for teaching positions at the secondary or two year college level.

NOTE: An area of emphasis in mathematics, Math through Algebra I, is offered by the M.A. degree programs in Elementary Education and Secondary Education. These programs, which are offered through the College of Education and Professional Development, are intended to meet the needs of public school teachers (K-12).

Area of Emphasis in Statistics

An area of emphasis in statistics is offered in the Department of Mathematics. The curriculum for the Master of Arts in Mathematics with an Area of Emphasis in Statistics prepares students with a solid background in both theoretical and applied statistics for positions in industry, government agencies, or business; for further graduate study at the doctoral level, and for teaching positions at the secondary or two-year college level. (See degree requirements that follow.)

~~Admission Requirements~~

~~Applicants should follow the admissions process described in the Graduate Catalog, or at the Graduate Admissions website at www.marshall.edu/graduate.~~

~~In addition:~~

- ~~• Applicants must also submit GRE scores to Graduate Admissions. The scores are considered when awarding graduate assistantships and during initial advising.~~
- ~~• To ensure full consideration for admission, applicants must submit duly completed applications, including all required admission credentials, to the Graduate Admissions Office at least two weeks before the beginning of the upcoming semester.~~
- ~~• Applicants wishing to be considered for the Graduate/Teaching Assistantship are advised to have all required credentials submitted by May 15 for the fall semester and by November 15 for the spring semester. □~~

Admission Requirements

Applicants to the Mathematics program must follow the admissions process described in the Graduate Catalog, or at the Graduate Admissions website at www.marshall.edu/graduate. International applicants should also consult the Office of International Admissions and review the website www.marshall.edu/admissions/international.

In addition:

- Applicants must have a Grade Point Average of at least 2.5 on a scale of 4 from the bachelor's degree granting institution. International applicants should contact the Office of International Admissions to inquire about possible substitute documentation.
- Applicants may optionally report scores from the Graduate Record Examination. Applicants who choose to send scores should send them directly to the Graduate Admissions office. GRE scores are required for applications for the mathematics Graduate Assistantship; see below.

Deadlines. To ensure full consideration for admission, domestic applicants must ensure that their application materials are received by the Graduate Admissions office no later than August 1 for admission in the fall, and no later than December 1 for admission in the spring. International applicants must ensure that their application materials are received by the Graduate Admissions office no later than June 15, for admission in the fall, and no later than October 15, for admission in the spring. Applicants who apply for a Graduate Assistantship should follow the earlier dates set below in the section *Timeframe for Awarding Graduate Assistantships*.

Conditional Admission. The Mathematics program may admit applicants conditionally, for one term, pending receipt of required credentials. Applicants whose transcripts do not show coursework equivalent to a bachelor's degree in mathematics may be admitted conditionally and required to take additional foundational courses, which may include undergraduate courses. Applicants who are conditionally admitted are not eligible to receive a Graduate Assistantship, but become eligible when fully admitted.

Provisional Admission. The Mathematics program may admit applicants provisionally, for one term, when the undergraduate Grade Point Average does not meet the requirement for admission.

For more information on the types of admissions, please see www.marshall.edu/graduate/admissions/types-of-admission/

Mathematics Graduate Assistantships and Financial Support

The department offers a limited number of Graduate Assistantships. Applicants wishing to be considered for a Graduate Assistantship must submit a separate application form to the Mathematics Department Assistant Chair for Graduate Studies. This form can be obtained from the Assistant Chair for Graduate Studies or from the Department of Mathematics website at www.marshall.edu/math/graduate.

For complete information on graduate assistantships and other financial support opportunities, please see the Graduate College website at www.marshall.edu/graduate.

Additional requirements for Graduate Assistant applications:

- The applicant should arrange for no more than three letters of recommendation supporting the application. Letters may be sent by email or by postal mail directly by the referees to the Assistant Chair for Graduate Studies, Department of Mathematics, One John Marshall Drive, Huntington

WV, 25755.

- The applicant must also submit a personal statement not more than two pages in length. This statement should describe the applicant's background, motivation for studying mathematics, future plans, and any other topics relevant to the applicant's qualifications for a Graduate Assistantship.
- Applicants for a Graduate Assistantship must also apply for admission to the Mathematics degree program and send General Record Examination scores to the Graduate Admissions office. A Graduate Assistantship application cannot be considered until the application for admission to the degree program is complete.
- A minimum Grade Point Average of at least 2.75 on a scale of 4 from the bachelor's degree granting institution is required.

Timeframe for Awarding Graduate Assistantships. Offers for Graduate Assistantships will be made beginning after May 15, for admission the following fall, and November 15, for admission the following spring. Applicants should ensure their materials are received before these dates to ensure full consideration. Applications received after these dates will be considered until all available Graduate Assistantships are filled.

Degree Requirements □

A Plan of Study approved by the department/program and the graduate dean must be filed in the Graduate College office before the student registers for the 12th semester hour. For graduation, a student is required to pass at least 36 approved credit hours, of which 18 credit hours must be at the 600 level. These 18 credit hours may include Special Topics, not more than 3 credit hours of Thesis (for students taking the thesis option), but not Independent Study. Students must pass or be exempted from each of MTH 528 – Advanced Calculus II, MTH 546 – Probability and Statistics II, and MTH 552 – Modern Algebra II. Students may choose either to write and defend an acceptable thesis or pass a comprehensive oral examination. Hours from MTH 589 - Seminar do not count toward graduation. □

The specific coursework requirements for the program are:

- 18 credit hours of 600-level courses, including not more than 3 credit hours of Thesis but excluding Independent Study.
- 18 additional credit hours at the 500 level or higher, which will include MTH 528, 546, and 552 unless exempted. These additional credit hours may also include an optional 6 credit hours at the 500 level or higher from another department at Marshall offering a graduate program as a minor. □

Area of Emphasis in Statistics: To be awarded the M.A. in mathematics with statistics as an area of emphasis, the student must satisfy the graduation requirements specified above for the M.A. degree in the Department of Mathematics. In addition to passing or exemption from MTH 528, MTH 546, and MTH 550, students must take and pass MTH 661 and MTH 662, neither of which may be taken as Independent Study. Students must take at least 12 credit hours of mathematics courses at the 500 level or

higher, not including probability and statistics courses. A student may choose to write and defend an acceptable thesis in the area of probability or statistics, or pass a comprehensive oral examination. A student choosing to write a thesis must take no fewer than 15 credit hours not including Thesis and Independent Study in probability or statistics courses. A student opting for the comprehensive oral examination must take no fewer than 18 credit hours not including Independent Study in probability or statistics courses.

Comprehensive Oral Exam: With the approval of the Assistant Chair for Graduate Studies, the student will select three graduate courses at the 600 level demonstrating a depth of knowledge in those areas of mathematics. For a student pursuing an area of emphasis in statistics, at least two of the courses must be chosen from the probability and statistics courses. The student will select, with the approval of the Assistant Chair for Graduate Studies, a committee consisting of three faculty members. The chairman of the Oral Examination Committee must have the level of Graduate Faculty Status as determined by the Graduate College.

~~Assistantships and Financial Support~~

~~Applicants wishing to be considered for the Graduate/Teaching Assistantship must submit a separate application form to the Assistant Chair for Graduate Studies. This application can be obtained from the Department of Mathematics. The application must be accompanied by three letters of reference and a personal statement.~~

~~For complete information on graduate assistantships please see www.marshall.edu/graduate.~~

~~Information on other financial support opportunities may be found on the Graduate College website.~~

Minor in Mathematics

The Department of Mathematics also offers a graduate minor in mathematics. A minor is earned by taking at least 6 credit hours in MTH-designated courses at the 500- or 600- level in Mathematics as approved by the student's advisor and the Assistant Chair for Graduate Studies in the Department of Mathematics.

Revised Catalog Description – Clean Copy

Note: The only changes are the sections “Admission Requirements” and “Mathematics Graduate Assistantships and Financial Support”, which have been rewritten. The other sections are unchanged from the current catalog text.

MATHEMATICS, M.A. □

Area of Emphasis in Statistics

Minor in Mathematics

Program Description

The Master of Arts degree in Mathematics is offered by the Department of Mathematics. This is a two-year program designed to prepare students for positions in industry, government agencies, or business; for further graduate study at the doctoral level, and for teaching positions at the secondary or two year college level.

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Area of Emphasis in Statistics

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- The applicant should arrange for no more than three letters of recommendation supporting the application. Letters may be sent by email or by postal mail directly by the referees to the Assistant Chair for Graduate Studies, Department of Mathematics, One John Marshall Drive, Huntington WV, 25755.
- The applicant must also submit a personal statement not more than two pages in length. This statement should describe the applicant's background, motivation for studying mathematics, future plans, and any other topics relevant to the applicant's qualifications for a Graduate Assistantship.
- Applicants for a Graduate Assistantship must also apply for admission to the Mathematics degree program and send General Record Examination scores to the Graduate Admissions office. A Graduate Assistantship application cannot be considered until the application for admission to the degree program is

complete.

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