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

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

NOTE: Before you submit a request for a new Major or Degree, you must submit an INTENT TO PLAN form. Only after the INTENT TO PLAN goes through the approval process are you ready to submit this request for a new Major or Degree. For detailed information on new programs please see: 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: Computer Science

Contact Person: Wook-Sung Yoo

Phone: x5452

Degree Program: Information Systems

Check action requested: ☐ Addition ☐ Deletion ☒ Change

Effective 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 Oct. 31, '18
College Curriculum Chair	Date 10/31/18
College Dean	Date Oct. 31, 2018
Graduate Council Chair	Date
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)

The Master of Science in Information Systems program (MSIS) was established at Marshall University in 1997 serving primarily working professionals in the area. Since then, technology has been changed rapidly and the regional demographics have also changed significantly. To answer the new demand in the field of information systems, the Weisberg Division of Computer Science conducted the review of the current curriculum over the year by the constituents of the program (industry - Advisory Board, alumni, students, and faculty) and proposes a revised 30 credit curriculum of the MSIS program with mainly following changes: (1) Admission requirement change by providing two bridge courses of computer programming and database for applicants lacking in technical background before full admission, and (2) Degree requirement change by changing required courses and updating existing courses with new and advanced topics needed in the job market. We believe this change of the curriculum will strengthen the quality of the program and improve its enrollment.

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)

IS 605, Systems Analysis Techniques, 3 credit, required
IS 610, Systems Design, 3 credit, required
IS 622, Information Structures 2, 3 credit, required
IS 698, Internship, 3 credit, optional

1. ADDITIONAL RESOURCE REQUIREMENTS: If your program requires additional faculty, equipment or specialized materials to ADD or CHANGE this major or degree, attach an estimate of the time and money required to secure these items.
NOTE: Approval of this form does not imply approval for additional resources. Enter NONE if not applicable.

None

2. NON-DUPLICATION: If a question of possible duplication occurs, attach a copy of the correspondence sent to the appropriate department(s) describing the request and any response received from them. Enter NONE if not applicable.

None

For catalog changes as a result of the above actions, please fill in the following pages.

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

3. *Current* Catalog Description

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

See attachment

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)

INFORMATION SYSTEMS, M.S.

Program Description
The Information Systems program addresses the effective analysis, design, creation, management, and evaluation of computing systems for individuals and organizations. The information-systems professional is to understand and improve the ways organizations derive value from information and our Information Systems program offers an immersive educational experience to students at the intersection of business, technology, and the human element. An MS in Information Systems degree provides graduates with the knowledge and skills to:
- Use information technology to improve organizational effectiveness.
- Manage complex business and information system challenges.
¥ Communicate and lead the team effectively in defining business needs and opportunities working with colleagues

Admission Requirements
Applicants should follow the admissions process stated in the graduate catalog or the graduate admissions web site. A four-year Bachelor's degree in the majors related to Information System with GPA of 2.75 or higher out of 4.0 is required. Applicants with a four-year bachelor degree in a major other than information system related program may be admitted to the program with a condition of successful completion of the following two bridge courses with a grade B or above in the first semesters of the program:
- Programming language (CS 110)
- Database Management System (CS 410)
Foreign nationals must provide proof of English proficiency with a minimum score 6.5 in IELTS or 80 on TOEFL IBT (or 550 paper based) and must have met all other admission criteria prior to registering for the first semester of courses. Applicants must submit official transcripts of all college-level courses. Whether a student meets the above requirements will be determined by the Chair or designee of the Weisberg Division of Computer Science, based on the information provided in the admission application and transcripts.

Degree Requirements
Students must complete 30 graduate credit hours, including at least 24 credit hours at Marshall University. The degree consists of 21 credit hours of required courses and 9 hours of approved elective courses.

Required courses (21 CR):
IS 600 Management Information Systems
IS 605 Systems Analysis and Design
IS 610 Systems Quality Assurance
IS 621 Information Structures I
IS 622 Emerging Technologies in Information Systems
IS 624 Data Warehousing
IS 647 IS Disaster Planning and Recovery

Electives (9 CR)
Three courses offered by the graduate programs of the Weisberg Division of Computer Science and approved by the student's advisor to complete the program. Thesis option as described below can be used to replace 6 credit electives:
- Thesis option (6 CR)
The Thesis option offers a student an opportunity for serious investigation into an area of interest by completing a 3 credit Thesis I course and a 3 credit Thesis II course. Thesis work is typically conducted over two semesters and the 6 CR of the thesis option courses cannot be combined in a semester. A thesis option can be taken after the completion of 12 credit hours. Students must summarize their thesis work in the form of a formal written document and deliver an oral presentation.

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

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

Department:
Major or Degree:
Type of Change: *(addition, deletion, change)*
Rationale:

Department: Computer Science
Major or Degree: M.S. In Information Systems
Type of Change: change
Rationale: The Master of Science in Information Systems program (MSIS) was established at Marshall University in 1997 serving primarily working professionals in the area. Since then, technology has been changed rapidly and the regional demographics have also changed significantly. To answer the new demand in the field of information systems, the Weisberg Division of Computer Science conducted the review of the current curriculum over the year by the constituents of the program (industry - Advisory Board, alumni, students, and faculty) and proposes a revised 30 credit curriculum of the MSIS program with mainly following changes: (1) Admission requirement change by providing two bridge courses of computer programming and database for applicants lacking in technical background before full admission, and (2) Degree requirement change by changing required courses and updating existing courses with new and advanced topics needed in the job market. We believe this change of the curriculum will strengthen the quality of the program and improve its enrollment.

INFORMATION SYSTEMS, M.S.

Program Description

The Information Systems program prepares participants to be effective users, designers, and developers of information systems, people who can add value to processes and products in organizations. The program also helps participants improve their professional writing, presentation, and teamwork abilities. Specific objectives expected of graduates include:

- The ability to describe a situation as a system, specifying components, boundaries, and interfaces
- Communication skills for effectively leading teams, collaborating with managers in defining needs and opportunities, and assisting colleagues
- Knowledge of the basic hardware and software components of computer systems and their configurations
- The ability to develop specifications for a software system in terms of functions, modules, and interfaces
- The ability to gather and use information needed by information systems professionals
- Mastery of the technical and human skills needed to successfully deploy information technologies in various organizational settings.

Admission Requirements

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

Each applicant for admission to the M. S. in Information Systems program must satisfy at least TWO 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 writing portion of the GRE;
- Score at the mean or above on the Miller Analogies Test;
- Have an undergraduate GPA of 2.75 or above;

Applicants with a wide variety of backgrounds are welcome.

In addition to the admission requirements stated above, an applicant wishing to major in Information Systems must have the following credentials and abilities:

- Ability to write structured programs in a high-level language and familiarity with computer systems
- Basic mathematical ability. College algebra with a grade of B would minimally meet this requirement
- Ability to use computer software for word processing, spreadsheet analysis, telecommunications, and data management
- Ability to write a coherent, grammatically correct report

Prospective students without the skills outlined above should take the following courses or their equivalents before entering the degree program:

- Computer Systems and Programming: IS 510 or equivalent
- Mathematical Maturity: College algebra
- Communication Skills: This need will normally be addressed by requirements within the program. In some cases, additional work may be required.

Degree Requirements

Students must complete 36 graduate credit hours, including at least 24 credit hours at Marshall University. The degree consists of 27 credit hours of required courses and 9 hours of approved elective courses.

Required courses:

IS 600 Management Information Systems
IS 605 Systems Analysis Techniques
IS 610 Systems Design
IS 621 Information Structures 1
IS 622 Information Structures 2
IS 623 Database Management
EM 660 Project Management
TE 698 Comprehensive Project Formulation or IS 625 Software Engineering
TE 699 Comprehensive Project or IS 691 Comprehensive Project – after completion of min. 27 hours

Electives:

Three or more elective courses approved by the student's advisor complete the program. In addition to Information Systems courses, these may include courses offered by other majors and by other institutions.

INFORMATION SYSTEMS, M.S.

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Required courses:

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IS 605 ~~Systems Analysis Techniques~~ Systems Analysis and Design
IS 610 ~~Systems Design~~ Systems Quality Assurance
IS 621 Information Structures 1
IS 622 ~~Information Structures 2~~ Emerging Technologies
~~IS 623 Database Management~~
IS 624 Data Warehousing
IS 647 IS Disaster Planning and Recovery
~~EM 660 Project Management~~
~~TE 698 Comprehensive Project Formulation or IS 625 Software Engineering~~
~~TE 699 Comprehensive Project or IS 691 Comprehensive Project—after completion of min. 27 hours~~

Electives:

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