

SECTION V: Proposed Changes to an Existing Program or Program Policies

Insert here a statement of the exact changes to be made: Remove one phrase from the general description of the M.S.E. program, "or for those students who wish to pursue a curriculum emphasizing engineering management."

Add a line to the "Prerequisites" section: Applicants to the M.S.E. program are exempt from submitting the standardized test score required for Graduate School admission.

Add a "Course Requirements" section to "Requirements for the Master of Science in Engineering Degree" section:

- a. One 3-hour course from each of the following four areas for a total of 12 hours: Mathematics, Computer Applications, Technical Communications, and Engineering Management; and
- b. Three 3-hour courses from a single engineering emphasis with the approval of the advisory committee; and
- c. Nine additional graduate-level hours from any area with the approval of the advisory committee; with
- d. A maximum of four 4000-level graduate level courses, with the remainder at the 5000 or higher level; and
- e. A maximum of four Operations Management (OMGT) courses.

Check if either of these boxes apply and provide the necessary signature:

- Program change proposal adds courses offered by another academic college, and that college dean's office has been notified. The signature of the dean of that academic college is required here: _____
- Program change proposal deletes courses offered by another academic college, and that college dean's office has been notified. The signature of the dean of that academic college is required here: _____

Check all the boxes that apply and complete the required sections of the form:

- Change of Name and Code (Complete only sections I, II, V and VII.)
- Change Course Requirements: (Complete all sections of the form except "Proposed Name" in II, section III, and section IV.)
- Change Delivery Site/Method (Complete all sections of the form except "Proposed Name" in II, section III, and section IV.)
- Change Total Hours (Complete all sections of the form except "Proposed Name" in II, section III, and section IV.)
- Change in Program Policies

SECTION VI: Justification

Justify this change and state its likely effect on any other degree program (including those outside the school or college). Identify any program or program components (other than courses) to be eliminated if this program is implemented. (Program and course change forms must also be submitted for such related changes.)

The proposed changes clarify degree requirements for the M.S.E program. The change could possibly reduce the number of Operations Management (OMGT) classes taken by M.S.E. students.

SECTION VII: Catalog Text and Format

In the box below, insert the current catalog text which is to be changed, with changes highlighted with the color yellow. Include all proposed changes identified in Section V. Only changes explicitly stated in Section V will be considered for approval by the University Course and Programs Committee, the Graduate Council and the Faculty Senate. If you are proposing a new program, give proposed text with all of the elements listed below. If you are proposing modified text, include these elements as appropriate.

Include the following elements, in order, in the catalog text for proposed undergraduate program(s) or program changes:

- State complete major/program name
- Briefly define or describe the major/program or discipline.
- Identify typical career goals or paths for graduates. (Optional)
- State admission requirements (if any) for entry or entry into upper/advanced level of major/program.
- Identify location in catalog of university, college/school, and department/program requirements which the student must meet in addition to hours in the major, but do not restate these requirements.
- State course requirements in the major and any allied areas, giving number of hours and specific courses; specify electives or elective areas and give numbers of hours and courses in elective pools or categories; identify any other course requirements.
- State any other requirements (required GPA, internship, exit exam, project, thesis, etc.).
- Identify name and requirements for each concentration (if any).
- Specify whether a minor or other program component is allowed or required and provide details.
- State eight-semester plan requirements

For minors, state requirements in terms of hours, required courses, electives, etc.

For graduate program/units, include elements (as needed) parallel to those listed for undergraduate programs above.

For Law School program/units, prepare text consistent with current catalog style.

For centers, prepare text consistent with current catalog style.

Degrees Conferred:

M.S.E., Ph.D. (ENGR)

The College of Engineering offers instruction in engineering leading to the degrees of Master of Science in Biological, Biomedical, Chemical, Civil, Computer, Electrical, Environmental, Industrial, Mechanical, and Transportation Engineering as well as a Master of Science in Operations Management. Descriptions and requirements of these degree programs may be found under separate departmental headings. In addition, a Master of Science in Engineering (M.S.E.) degree is available for students who wish to take a broader range of courses than is usually permitted for the designated degrees listed above.

General Requirements for the Master of Science Degrees in the College of Engineering

In addition to the requirements of the Graduate School, the following requirements have been established by the College of Engineering for all Master of Science graduates:

1. Complete a minimum of 30 semester hours of graduate-level credit beyond the bachelor's degree that includes 50 percent graduate-level credit in the field of study.
2. Earn a minimum cumulative grade-point average of 3.00 on all graduate courses attempted.

Departments may set higher grade standards and additional requirements.

Master of Science in Engineering Degree: The M.S.E. degree is available as a distance-delivered option. Courses are offered in five 8-week terms each year. A Master of Science in Engineering (M.S.E.) degree is available for students who wish to take a broader range of courses than is usually permitted for the designated degrees listed in the previous paragraph **or for those students who wish to pursue a curriculum emphasizing engineering management.**

Graduate courses in engineering are offered by the faculty of the College of Engineering at the University of Arkansas, Fayetteville, that will satisfy both the academic requirements and the 30-week residence requirement for the Master of Science in Engineering degree.

Prerequisites to the Master of Science in Engineering Degree: Students with a B.S. degree from any engineering program accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology are normally accepted into the M.S.E. program. Other students are required to have credit for the basic mathematics (through differential equations), chemistry, and physics courses required for undergraduate degrees in engineering. **Applicants to the M.S.E. program are exempt from submitting the standardized test score required for Graduate School admission.**

Requirements for the Master of Science in Engineering Degree: The general minimum requirements of the Graduate School for Master of Science degrees must be met. The graduate faculty of the College of Engineering has established the following specific requirements for the Master of Science in Engineering degree:

1. Complete a minimum of 30 semester hours of graduate-level credit beyond the bachelor's degree. Up to 6 semester hours of project research can be used to satisfy the required 30 semester hours of credit by writing a project paper approved by the departmental faculty.
2. **Course Requirements:**
 - a. One 3-hour course from each of the following four areas for a total of 12 hours: Mathematics, Computer Applications, Technical Communications, and Engineering Management; and
 - b. Three 3-hour courses from a single engineering emphasis with the approval of the advisory committee; and
 - c. Nine additional graduate-level hours from any area with the approval of the advisory committee; with
 - d. A maximum of four 4000-level graduate level courses, with the remainder at the 5000 or higher level; and
 - e. A maximum of four Operations Management (OMGT) courses.
3. Earn a minimum cumulative grade-point average of 3.00 on all graduate courses attempted. Minimum grades of "B" are required on 80 percent of the graduate hours taken for credit towards the M.S.E. degree.
4. Satisfactorily complete a comprehensive examination.

The program of study for each candidate will be determined by conference with the major professor and with advice from the candidate's graduate committee.

General Requirements for the Doctor of Philosophy Degree in Engineering

The program of study leading to the degree of Doctor of Philosophy in Engineering will vary, depending upon the major field of study and the objective of the prospective candidate. Program requirements balance credit hours for required coursework, research, and dissertation preparation.

In addition to the requirements of the Graduate School, the following requirements have been established by the College of Engineering for all doctoral graduates:

1. A minimum of 72 semester hours of graduate-level credit beyond the bachelor's degree.
2. A minimum of 42 semester hours of graduate-level credit beyond the master's degree.

Departments may set higher grade standards and additional requirements. (See department requirements.) Students from non-engineering backgrounds typically will be required to take selected fundamental engineering courses.

Major areas of study for the Doctor of Philosophy Degree in Engineering are as follows:

- Biological Engineering
- Biomedical Engineering
- Chemical Engineering
- Civil Engineering
- Computer Engineering
- Electrical Engineering
- Industrial Engineering
- Mechanical Engineering

SECTION VIII: Action Recorded by Registrar's Office

PROGRAM INVENTORY/DARS

PGRM _____ SUBJ _____ CIP _____ CRTS _____

DGRE _____ PGCT _____ OFFC&CRTY VALID _____

REPORTING CODES

PROG. DEF. _____ REQ. DEF. _____
Initials _____ Date _____

Distribution

Notification to:

- (1) College
- (2) Department
- (3) Admissions
- (4) Institutional Research
- (5) Continuing Education
- (6) Graduate School
- (7) Treasurer
- (8) Undergraduate Program Committee

8/19/13