

# **School of Engineering and Applied Sciences**

Master of Science in Engineering Management (MSEM) General Policies

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# Application and Admissions

# **Application and Fee**

Students seeking an MSEM degree must complete an Application for Admission using the online form found on the Graduate School website. The form, along with an application fee, must be electronically filed with the Graduate School, Western Kentucky University. *Students are permitted to enroll in 12 credit hours of course work as a non-degree seeking student prior to admission*.

The application, transcripts, and GRE scores need to be received in the Graduate School by deadlines posted on the Graduate School website to ensure adequate time for departmental review. Students applying for a graduate assistantship should follow the dates indicated for graduate assistantship applications.

Students will be admitted into the program in good standing after completion of the following:

- Bachelor's degree from an accredited college or university (*undergraduates may apply one semester prior to graduation*)
- Submission of official transcripts
- Completion of the GRE with appropriate scores

Undergraduate students may be accepted as a JUMP student if they meet appropriate criteria.

# **Transcript Record**

Graduates of accredited institutions other than Western Kentucky University must request one official transcript showing the completed undergraduate degree. The transcript must be forwarded from the college or university registrar to WKU. Applicants who have not completed the undergraduate degree are required to submit one official transcript at the time of application and one official transcript upon completion of the degree. Transcript records should be submitted for any graduate and undergraduate courses taken at any institution other than WKU.

# **Applicants from Non-Regionally Accredited Institutions**

Graduates of non-regionally accredited, four-year educational institutions may be considered for admission to a master's degree program. International students may apply for acceptance into the program through the English as a Second Language Institute (ELSI). English language proficiency must be demonstrated with an IELTS score of 6.5 or higher or the equivalent. See the Graduate Catalog for details.

# **Standardized Examination Scores**

The MSEM program requires completion of the Graduate Record Examination (GRE) regardless of undergraduate grade point average. A GMAT score may also be accepted upon request.

The GRE is comprised of verbal, quantitative examination and analytical writing assessment. Standardized test scores must be received by the Graduate School prior to full admission. The admission decision is based upon the undergraduate transcript grade point average, the GRE verbal and quantitative scores, and the analytical writing assessment. Registration materials for the GRE are available at the Counseling & Testing Center, the Graduate School, ETS (http://www.ets.org/gre), or by calling (800) 473-2255. If students already have a master's degree from an accredited institution *in a related field*, the GRE requirement may be waived.

# **GRE Score**

For the GRE, a required minimum score of 140 on both the verbal and the quantitative sections is required. A score of at least 2.5 on the analytical writing assessment is required. Previous graduate course work does not have any bearing on admission requirements.

# Alternate Admission for Master's Degree

Students, who do not have the required background in fundamental concepts in statistics, will be required to take SEAS 271 Industrial Statistics. This course does not count towards the degree requirement

Applicants who have earned a B.S. degree in engineering or related STEM fields with a cumulative GPA of 3.0 or higher are exempt from taking the GRE.

Current students at WKU in a JUMP program in one of the undergraduate baccalaureate programs in the School of Engineering and Applied Sciences (SEAS) with a cumulative GPA of 3.0 or higher are exempt from taking the GRE.

# **Undergraduate Earning Graduate Credit**

Undergraduates at Western may enroll in a graduate course (i.e., courses requiring graduate standing) provided they meet the following conditions:

- 1. Have earned at least 75 undergraduate hours with minimum cumulative GPA of 3.0,
- 2. Submit an Undergraduate Taking Graduate Courses form to the Graduate School,
- 3. Carry a semester course load of no more than 15 hours (combined undergraduate and graduate hours), and
- 4. Do not apply the graduate course(s) completed to the undergraduate academic program.

# Joint Undergraduate and Master's Degree Program (JUMP)

The JUMP provides the opportunity for academically outstanding students in the School of Engineering and Applied Sciences (SEAS) to complete both a Bachelor of Science and Master of Science degree in five years. Qualified students admitted to the JUMP may begin taking graduate courses in their junior year. Contingent on satisfactory progress, these students will be admitted into the MS Engineering Technology Management program upon completion of their undergraduate degree and be classified as graduate students.

# **Requirements for Admission**

To be eligible for the program, students must meet the following criteria:

- Enrollment in good standing in one of the undergraduate baccalaureate programs in the School of Engineering and Applied Sciences (SEAS)
- Cumulative GPA of at least 3.0
- Recommendation of a SEAS faculty member and/or the undergraduate advisor

• Completion of at least 72 hours and demonstrated proficiency in English

#### **Application Process**

Students interested in the JUMP should meet with their faculty advisor to complete a JUMP application/statement of intent and a Form C. The Graduate Faculty of SEAS review JUMP applications.

# **Updating an Application/Enrollment Status**

If a student does not enroll in the semester for which they initially applied or have not enrolled in more than three semesters, an Update Form is required. This form may be completed on the Graduate School website.

# Degree Requirements

# **Course Load**

The number of semester hours of credit earned during a given term may not exceed 15 hours. Graduate assistants may carry a course load of 12 hours maximum during each semester while holding an assistantship appointment.

# **Course Numbering**

All courses in the MSEM program are numbered 500 and above.

Courses numbered at the 400-level or below cannot be taken for graduate credit. However, all courses taken during the graduate program count towards the overall GPA, which must remain at 3.0 or above.

# Time Limitation for Completion of Degree

All requirements for MSETM degree must be completed within six years from the date the first course is taken. Failure to complete a degree in six years will result in the loss of all credits taken outside of the time limit.

# **Transfer Credit**

A maximum of twelve (12) semester hours of graduate credit earned at another institution may be accepted toward meeting course requirements for the MSEM program with approval from the graduate coordinator.

The following requirements must be met:

- 1. The credit(s) must have been earned at an accredited graduate institution;
- 2. The course work to be transferred must be properly designated as having been taken for graduate credit;
- 3. The grade point average must be at least 3.0 (4.0 scale) on all graduate course work appearing on the transcript before specific courses can be transferred;
- 4. Additionally, the courses to be transferred must carry a grade of 3.0 (4.0 scale) or better;

- 5. Credits earned during a given term must not exceed the number of weeks of instruction and must have been earned within the six-year time limit for degree completion;
- 6. Any course(s) to be transferred must be appropriate for degree completion; and
- 7. At least 12 hours in the major area must be taken at WKU.

The graduate coordinator will review the courses submitted for transfer and review them against the required courses for the MSEM degree and the criteria above. Accepted courses should be listed on the student's transcripts and program of study. If the transferred courses are core courses, the student should also submit a graduate appeal form with rationale for the substitution of courses. The Graduate School must review credits from international graduate programs before they are accepted and transferred.

The "Transfer Credit Practices" report published by the American Association of Registrar's and Admissions Officers is the reference used in evaluating credits.

Transfer credits taken during the final semester of a program will delay program completion until official transcripts have been received in the Graduate School.

Students may not transfer previously taken undergraduate courses into the MSEM degree program.

#### **Independent Study Courses**

A maximum of six hours of workshops, independent studies, special problems, individual special topics, and research or readings in the discipline may be used for the MSEM program.

#### **Graduate Advising**

Upon admission to the MSEM program, each student is assigned a major advisor. Although advising at Western Kentucky University is specifically designed to assist students as they progress through degree programs, it is the responsibility of all students to be thoroughly familiar with all rules, regulations, and requirements pertaining to graduate study.

#### **Change of Program**

Students who wish to change from another program of study to the MSEM program must complete a new graduate application and meet the MSETM admission requirements. The faculty advisor will evaluate all previously completed course work for its applicability.

#### **Program of Study**

The program of study is maintained and shown in Degree Works. It is recommended that the degree plan be developed in consultation with the advisor assigned at the time of admission.

The total number of credits students may apply to their degree program from credits earned prior to admission to the program (courses taken during the senior semester, unclassified status courses, transfer courses, previous master's courses, and previous certificate courses) may not exceed 12 hours.

# **Course Substitutions**

Any change in the approved program of study must be specified in Degree Works, after approval by the advisor, and the Graduate School. Course changes include the addition or deletion of a course, the substitution of a transfer course, or substitution of another course offered by WKU for a course on the program.

Course substitutions for transfer credits should be made after the student has completed the course(s) at the transfer institution. Any course(s) taken outside of WKU must be approved for content by the major advisor and meet transfer guidelines listed in the Graduate Catalog. An official transcript for all transfer work must be submitted to the Graduate School.

# Grades

Candidates for MSEM degrees and certificates are required to maintain a combined average grade of B (3.0 grade point average) in all course work. Graduate students must maintain a 3.0 GPA for both degree/certificate program requirements *and* in their overall graduate course work (overall graduate GPA). Students who fail to meet the 3.0 GPA requirements in both areas will not be awarded a degree.

The minimum acceptable evaluation for a master's thesis is a passing grade (P). For the thesis, an *in-progress* grade must be reported for each enrollment term if the work is not complete. The *in-progress* grade may be changed after the final written product and defense has been accepted.

Grades are recorded by the Office of the Registrar as reported by the graduate faculty at the close of each academic term. No grade filed by that office might be changed except on a written grade change form from the instructor certifying that an error has been made or, in the case of an incomplete, that the work was completed.

# **Repeating a Course**

If a course is repeated where a passing grade was received (C or better), the course credit(s) will only count once toward the program and both grades will be used in calculating the GPA. A course in which a grade of D or F is received must be repeated if the course is used in meeting MSEM degree requirements. When the course is repeated, only the second course credit(s) will count toward the program and the replacement grade is used in calculating the GPA.

# **Research Course**

For the MSEM program, EGMT 571 Research Methods in Technology is required. Other research courses at the graduate level from other programs (500 and up) may count with advisor approval.

A minimum grade of B must be attained for this course and must be taken before taking thesis hours. If a student receives a grade of C or less in EGMT 571, they must repeat the course or demonstrate competency via examination.

# **Thesis Committee Selection**

Students must submit a Committee Selection form before enrollment in EGMT 599 Thesis.

# **MSEM Student Expectations and Timeline**

Students are expected to complete the following milestones to avoid having holds placed on their registrations and to ensure completion of the degree requirements in a timely fashion. The following is representative for a student completing nine credit hours per semester (full-time). Students who take more or less than full-time credits should adjust their schedule accordingly.

Academic Semester 1

- Complete EGMT 571 if started in fall.
- Review the thesis procedures or the requirements for the graduate project.
- Establish three-member graduate thesis committee or talk to a faculty member regarding a graduate project.

Academic Semester 2

- Complete EGMT 571 if started in spring.
- Meet with graduate thesis committee to discuss your thesis proposal.
- Complete the Graduate Committee Selection Form.
- Review the thesis writing guide.
- Write thesis proposal (this may require several drafts).

Academic Semester 3

- Non-thesis: Take EGMT 690 and submit the graduate project per the instructions provided in the course.
- Thesis: Take EGMT 699 and submit a thesis proposal for review to Graduate Thesis Committee by end of week five.
- Complete and submit application for graduation.

Academic Semester 4

- Complete all courses
- Submit thesis to graduate thesis committee at least three weeks before the final defense deadline. Submit graduate project to faculty by the deadline posted for the capstone.
- Complete oral comprehensive exam before the final defense deadline. The Capstone Completion form will be submitted via TopNet by the graduate thesis committee, or graduate project faculty, if successful.
- Submit the final thesis to the graduate thesis committee for review before the deadline. The thesis cover page will be signed by graduate thesis committee, if successful.
- Graduate

# Thesis and Project

# **Thesis/Project Prerequisite**

A student must take 3 hours of credit in EGMT 571 Research Methods in Technology Management, and an approved Committee Selection form must be on file before enrollment in EGMT 599 Thesis.

# **Thesis Committees**

A thesis committee assists students completing the thesis. The thesis committee needs a minimum of three committee members (thesis chair and two members). The thesis chair may work with the student to select two additional graduate faculty members. All committee members must have a designation of graduate faculty member as approved by the WKU Graduate Council.

The thesis chair must be a graduate faculty member of the School. One additional faculty from the School must also be selected. The third member of the committee may be graduate faculty from the School or another department. The thesis reader may be from the School or outside the School.

In some cases, an individual who is not a part of WKU may be asked to serve on a thesis as the third member. Before service, the individual must qualify and be recommended for adjunct membership on WKU's graduate faculty. An individual who has expertise in a pertinent area, but who does not meet the requirements for appointment to the graduate faculty, may serve as a fourth member of the committee with approval of the Dean of Graduate Studies.

Each committee member who has agreed to serve on the student's thesis committee should indicate his or her acceptance on student's Committee Selection Form. If changes to a committee occur, it is the student's responsibility to file an updated form.

# **Thesis Proposals**

A student must submit a thesis proposal to their thesis committee for approval before starting project execution or data collection. The proposal is typically the first three chapters of the thesis. For more information, see the MSEM Thesis Procedures and Writing Guide.

Once the thesis committee has reviewed and approved the proposal, each committee member should indicate his or her acceptance in writing.

# **Thesis Approval**

It is the responsibility of the thesis committee to review the thesis thoroughly. The thesis chair and committee members are responsible for the content, quality, and proper format. The defense should only be scheduled when the thesis committee is convinced that only modest revisions will be needed. The committee will sign the Thesis Signature Page only after a successful defense without major corrections.

It is the responsibility of the student, the thesis committee chair, and the thesis committee to ensure the document is submitted using the correct formatting, spelling, and proper grammar. The committee will thoroughly review each submission for university standard formatting errors (Roman numeral pages) and will review 10 Arabic numbered pages at random for spelling and grammar. If errors are found, the committee will return the document for correction. After the student completes final revisions, the committee reviews the thesis. The formatting guidelines and sample documents can be found on the program web page.

If the thesis is acceptable, the committee signs the approval page to indicate the thesis is correctly formatted. The student should then submit the signed form along with the final

electronic version of the thesis to the Graduate School. *The thesis should be submitted by the posted due dates for that semester*. It is the ultimate responsibility of the student to meet all formatting and thesis requirements of the Graduate School.

Instructions and requirements for preparing, submitting, and distributing the thesis are given in the *Guidelines for Master's Theses, Specialist Project Reports, and Dissertations*. Graduate students should submit their theses electronically. *It is the student's responsibility to obtain and comply with all required guidelines*.

# **Thesis Credit Hours**

The six credit hours required for the thesis may be taken over multiple semesters at the discretion of both the student and the thesis committee chair. The total credit received for the thesis at completion must be at least six hours and must be within the six-year window for all graduate courses taken in the program. Credit for interim work completed on the thesis is recorded with an *in progress* grade for each enrollment prior to submission. The *in progress* grade may be changed using a grade change from after the thesis has been accepted. Grades for a thesis should not be posted to the student's record until the Graduate School receives confirmation of successful oral defense and reader approval form.

# **Certified Technology Manager Examination**

Students who register for EGMT 599 Thesis or EGMT 690 Graduate Project hours must also complete the Certified Technology Manager (CTM) exam offered by the Association of Technology, Management, and Applied Engineering (ATMAE). The exam is two hours and must be taken in a proctored setting. The MSEM program will collect and track the exam results for program assessment purposes.

# **Thesis/Project Oral Defense Presentation**

The MSEM program requires an oral presentation for both the thesis and graduate project. An oral defense of the thesis or project proposal may also be called at the discretion of the assigned faculty or committee chair.

Students are responsible for scheduling the oral presentations with their thesis committee or assigned graduate project faculty. A designated graduate faculty member in the department will collect and track the rubrics for the purpose of program assessment.

The thesis chairperson will notify the Graduate School of the results of the examination by submitting a Comprehensive Exam/Capstone Completion report (TopNet/Advisors & Student Data Inquiry/Graduate Matriculation Forms). The thesis committee chair or graduate project faculty is responsible for submitting the report to the Graduate School. Failure of the Graduate School to receive the report before the deadline can delay graduation by at least one semester.

As the MSEM is a distance degree program, the thesis committee or graduate project faculty may choose to hold the defense using teleconferencing technology where it is in the best interest of the student and committee.

#### **Maintaining Matriculation**

To maintain matriculation, the student must register during any which he or she will be actively working on the thesis or project. If the thesis or project is not completed during the period of registration for this credit, the student must maintain matriculation during the semester in which he or she will graduate. Enrollment in a matriculation course does not result in a grade or credit toward any degree or non-degree program.

# Graduate Assistantships

SEAS may offer Graduate Assistantships (GA) to qualified graduate students when available. GAs must meet all requirements and carry at least nine credit hours per semester with a 3.0 GPA minimum. Graduate assistants may perform a variety of duties as assigned by graduate faculty including research, teaching, laboratory supervision, curriculum and course development, special projects, or departmental service. Half-time graduate appointments (20 hours per week) or quarter-time appointments (10 hours per week) and tuition remuneration are negotiated with the department before making a recommendation to the Graduate School. Students wishing to apply for an assistantship should complete a Graduate Assistantship Application and submit a resume to the department. Student applicants must also submit three letters of reference. All GAs who are scheduled to teach are required to enroll in the Graduate Assistant Teaching Institute (GATI) http://www.wku.edu/cfd/gati.php.

# Graduate Faculty

New faculty may request graduate faculty status through the submission of an application to the Graduate School, subject to approval by the Graduate Council per Section 2 of the Operating Papers. Faculty who wish to apply for graduate faculty reappointment beyond the initial six-year term must have demonstrated the following:

- Have a solid record of effective teaching
- Present a record of high quality scholarly and creative achievement
- Have a history of acceptable university and public service

and

- Have taught at least one graduate level course
- or
- Served on a thesis committee as a chair or as a member

As of the date listed at the beginning of this document, the all graduate program faculty listed in the School of Engineering and Applied Sciences on Graduate School's Graduate Faculty Members website are eligible to serve on thesis committees. https://www.wku.edu/graduate/faculty\_staff/grad\_faculty\_members.php

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