

BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING



UNIVERSITY OF MISSOURI – ST. LOUIS & SOUTHWESTERN ILLINOIS COLLEGE TRANSFER GUIDE



This Guide is intended for the use of students who plan on transferring from Southwestern Illinois College (SWIC) to the University of Missouri – St. Louis (UMSL) to pursue a Bachelor of Science in Mechanical Engineering through the UMSL/Washington University (WUSTL) Joint Engineering Program. This guide is intended for use under advisement of a UMSL Transfer Coordinator.

The UMSL/WUSTL Joint Engineering Program offers UMSL students the opportunity to pursue a variety of engineering degree options while taking advantage of the resources, facilities, and faculty provided at WUSTL. The upper-division engineering courses are offered in the evenings and on Saturdays on the WUSTL campus and are taught by WUSTL faculty. This schedule permits students to co-op during the day at local engineering firms. Tuition for the engineering courses is the UMSL tuition rate with a small additional fee. Students of this program are also able to utilize student services provided by both institutions. For more information on the UMSL/WUSTL Joint Engineering Program, please visit their [website](#).

PRE-ENGINEERING SEQUENCE

The following requirements must be completed for a student to be eligible to take formal Engineering courses through the UMSL/WUSTL Joint Engineering Program. These requirements may be completed at either UMSL or SWIC and included here are any SWIC courses that fulfill corresponding requirements. Unless stated otherwise, all pre-engineering courses must be completed with a C- grade or higher to fulfill the requirements of this program.

- A student must earn a 2.75 GPA over this sequence of pre-engineering courses.
- Chemistry - CHEM 105 General Chemistry I (5)
- Calculus I, completed a C grade or higher - MATH 203 Analytic Geometry & Calculus I (5)
- Calculus II - MATH 204 Analytic Geometry & Calculus II (5)
- Calculus III - MATH 205 Analytic Geometry & Calculus III (5)
- Differential Equations - MATH 290 Differential Equations (3)
- Calculus-Based Physics I - PHYS 204 Physics – Mechanics (4)
- Calculus-Based Physics II - PHYS 205 Physics – Heat, Elec & Magnetism (4)
- Engineering-Statics - ENGR 263 Analytical Mechanics-Statics (3)
- Engineering-Dynamics - ENGR 264 Analytical Mechanics-Dynamics (3)

GENERAL EDUCATION

The following are the general education requirements of the UMSL/WUSTL Joint Engineering Program. It is recommended that the student complete these requirements while completing those above in the pre-engineering sequence. Included here are any SWIC courses that fulfill corresponding requirements.

- First-Year Writing - Complete 1 course from the following with C- grade or higher:
 - ENG 101 Rhetoric & Composition I (3)
 - ENG 102 Rhetoric & Composition II (3)
- Engineering Ethics - This course must be completed at UMSL.
- Philosophy of Science - This course must be completed at UMSL.
- American History - Complete 1 course from the following:
 - HIST 180 U.S. History to 1865 (3)
 - HIST 181 U.S. History, 1865 to the Present (3)

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- Cultural Diversity Social Science - Complete 1 course from the following:
 - ANTH 150 Cultural Anthropology (3)
 - ANTH 210 Native American Cultures (3)
 - ANTH 250 Introduction to Archaeology (3)
 - □ Additional Social Science - Complete 2 of the following courses in addition to those already completed for above requirements:
 - Any **ANTH** Courses
 - Any **ECON** Courses
 - Any **HMS** Courses
 - Any **POLS** Courses
 - Any **PSYC** Courses (Exceptions: Not *PSYC 200* and *PSYC 252*)
 - Any **SOC** Courses
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| AOJ 100 Intro to Administration of Justice (3) | AOJ 252 Organized Crime (3) |
| AOJ 103 Introduction to Corrections (3) | AOJ 261 Probation and Parole (3) |
| AOJ 105 Police Administration (3) | AOJ 299 Spec Topics In Admin of Justice (1-4) |
| AOJ 153 Juvenile Delinquency (3) | GEOG 151 Geography of the United States and
Canada (3) |
| AOJ 155 Community Policing (3) | GEOG 152 World Regional Geography (3) |
| AOJ 156 Issues in Criminal Justice (3) | GEOG 202 Economic Geography (3) |
| AOJ 160 Criminology (3) | MGMT 117 Personal Finance (3) |
| AOJ 203 Criminal Law & Admin. of Justice (3) | |
| AOJ 251 Rules of Criminal Evidence (3) | |

For any questions regarding this guide please contact the UMSL Office of Transfer Services at (314) 516-5162.