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 Electrical Engineering through the UMSL/Washington University (WUSTL) Joint Engineering Program. This guide is intended for use under advisement of a UMSL Student Recruitment Specialist.

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 evening and on Saturdays on the WUSTL campus and are taught by the WUSTL faculty. This schedule permits students to co-op during eh 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 with 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-Static - 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 the following course with a C- or better
  - ENG 101 Rhetoric and Composition I (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)

- Cultural Diversity Social Science - ANTH 150 Cultural Anthropology (3)
- Additional Social Science – Complete 2 additional Social Science courses *If additional social science course is SOC the final must be from another area of study

*Students seeking to major in engineering are first designated as ‘Undeclared with an interest in Engineering majors’ until they have completed Math 1800 Analytical Geometry & Calculus I. Upon successful completion of
**Math 1800 with a grade of C or better, students will be allowed to declare pre-engineering as their major. Math 1800 must be completed successfully within two attempts.**

For questions about this transfer guide please call the Office of Admissions at 314-516-5451