

# BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING



## UNIVERSITY OF MISSOURI – ST. LOUIS & JOHN WOOD COMMUNITY COLLEGE TRANSFER GUIDE



This Guide is intended for the use of students who plan on transferring from John Wood Community College (JWCC) 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 Transfer Coordinator. Students also have the option to pursue an Associate in Engineering Science at JWCC prior to transferring to UMSL, though it is not the recommended option.

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 UMSL/WUSTL Joint Engineering Program, please visit their [website](#).

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### 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 JWCC and included here are any JWCC 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 – CHM 103 Principles of Chemistry (4)
- Calculus I, completed with a C or higher – MAT 220 Analytic Geometry & Calculus I (4)
- Calculus II – MAT 221 Analytic Geometry & Calculus II (4)
- Calculus III – MAT 222 Analytic Geometry & Calculus III (4)
- Differential Equations – MAT 251 Differential Equations (3)
- Calculus-Based Physics I – PHY 227 Principles of Physics I (5)
- Calculus-Based Physics II – PHY 228 Principles of Physics II (5)
- Engineering-Statics – EGR 203 Engineering Mechanics: Statics (3)
- Engineering-Dynamics – EGR 204 Engineering 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 STLCC courses that fulfill corresponding requirements.

- First-Year Writing - ENG 102 Rhetoric & Composition II (3) (Prerequisite ENG 101)
- Engineering Ethics – This course must be completed at UMSL
- Philosophy of Science – This course must be completed at UMSL.

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American History - Complete 1 course from the following:

HIS 121 U.S. History I (3)

HIS 122 U.S. History II (3)

The following course fulfills a Humanities and UMSL's Cultural Diversity requirement:

PHL 201 World Religions (3)

Social Sciences - Complete 2 of the following courses:

BUS 161 Business Law I (3)

CMN 101 Introduction to Speech I (3)

CMN 104 Interpersonal Communication (3)

CMN 220 Mass Media (3)

ECO 101 Principles of Economics I (3)

ECO 102 Principles of Economics II (3)

LEN 111 Juvenile Justice (3)

LEN 130 Probation and Parole (3)

LEN 205 Adult Corrections (3)

LEN 212 Criminal Law (3)

Any **PSC** Courses (Exceptions: PSC 195 & 295)

Any **PSY** Courses (Exceptions: PSY 123, 195, & 295)

Any **SOC** Courses (Exceptions: SOC 195, 243, & 295)

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