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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☐ Humanities - Complete 1 of the following courses in addition to those already completed for above requirements:

Any LIT Courses
Any MUS Courses (Exceptions: Not MUS 154, 155, 201, 250, 251, 252, and 255)
Any THEA Courses
ART 101 Art Appreciation (3)
ART 102 Art Survey: Modern to Contemporary (3)
ART 103 Survey of Non-Western Art (3)
ART 104 Art History I: Prehistoric-Gothic (3)
ART 105 Art History II: Renaissance-Modern (3)
ART 106 History of Photography (3)
ART 110 Women in Art – Medieval to Modern (3)
ENG 107 Creative Writing (3)
ENG 207 Advanced Creative Writing (3)
ENG 299 Special Topics in English (1-4)

☐ 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)
HIST 114 Latin American History (3)
HIST 115 Mid-East History (3)
HIST 117 African History (3)
HIST 118 Asian History (3)

☐ Additional Social Science - Complete 1 of the following courses in addition to those already completed for above requirements:

Any ANTH Courses
Any ECON Courses
Any HIST Courses
Any HMS Courses
Any POLS Courses
Any PSYC Courses (Exceptions: Not PSYC 200 and PSYC 252)
Any SOC Courses
AOJ 100 Intro to Administration of Justice (3)
AOJ 103 Introduction to Corrections (3)
AOJ 105 Police Administration (3)
AOJ 153 Juvenile Delinquency (3)
AOJ 155 Community Policing (3)
AOJ 156 Issues in Criminal Justice (3)
AOJ 160 Criminology (3)
AOJ 203 Criminal Law & Admin. of Justice (3)
AOJ 251 Rules of Criminal Evidence (3)
AOJ 252 Organized Crime (3)
AOJ 261 Probation and Parole (3)
AOJ 299 Spec Topics In Admin of Justice (1-4)
GEOG 151 Geography of the United States and Canada (3)
GEOG 152 World Regional Geography (3)
GEOG 155 Economic Geography (3)
MGMT 117 Personal Finance (3)

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

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