RECOMMENDED TRANSFER COURSES

ENGINEERING MAJOR

JOHNSON COUNTY COMMUNITY COLLEGE
2017-2018 TRANSFER GUIDE

GENERAL EDUCATION REQUIREMENTS
The following list the minimum general education courses needed at Johnson County Community College (JCCC) to transfer to the College of Engineering. The WSU General Education program requires 42-45 hours. By completing the recommended courses outlined in this Transfer Guide JCCC students will have only engineering courses (plus any unmet General Education Issues and Perspective and the Engineer of 2020 options) required for all engineering majors to meet degree requirements. Specific engineering courses for each major will be provided during student advising.

FOUNDATIONAL/BASIC SKILLS COURSES: (9 credit hours MUST be completed with a grade of C- or better within the first 48 hours of coursework)
- ENGL 121 Composition I
- ENGL 122 Composition II
- SPD 121 Public Speaking OR
- SPD 125 Personal Communication

COMPLETE INTRODUCTORY COURSES IN THE FOLLOWING DISCIPLINES:

Fine Arts: Choose one course from the following disciplines for 3 credit hours:
- ARTH 180 Art History: Ancient to Renaissance
- ARTH 182 Art History: Renaissance to Modern
- MUS 121 Intro to Music Listening
- MUS 126 Intro to World Music
- THEA 120 Intro to Theater

Humanities: Choose one course from the following disciplines for 3 credit hours:

NOTE: Computer Science majors will take PHIL 124 Logic/Critical Thinking (minimum grade of C or better) to satisfy humanities requirement.

Social & Behavioral Sciences: Choose one course from the following disciplines for 3 credit hours:
- ADMJ 121 Intro to Admin of Justice
- ANTH 125 Cultural Anthropology
- ANTH 142 World Pre-History
- ANTH 144 Archeology
- ECON 230 Principles of Macroeconomics
- GEOS 145 World Regional Geography
- JOUR 120 Mass Media & Society
- POLS 122 Political Science
- POLS 124 American National Government
- POLS 123 Intro to Comparative Government
- PSYC 130 intro to Psychology
- SOC 122 intro to Sociology
- SOC 146 Intro to Social Work & Social Welfare
- SOC 147 Social Work & Social Justice
- SPD 180 Intercultural Communications
- ENGL 130 Intro to Literature
- ENGL 205 Bible Literature
- ENGL 244 Literature of American Popular Music
- ENGL 246 American Literature I
- ENGL 247 American Literature II
- ENGL 250 World Masterpieces
- FL 179 Intermediate Russian I
- FL 230 Intermediate Spanish I
- HIST 125 Western Civ: Ancient World to the Renaissance
- HIST 126 Western Civ: Scientific Revolution to the Modern Age
- HIST 140 US History to 1877
- HIST 141 US History since 1877
- HIST 151 World History I: Traditional World
- HIST 152 World History II: Modern World
- HUM 122 Intro to Humanities
- PHIL 121 Intro to Philosophy
- PHIL 124 Logic/Critical Thinking
- PHIL 143 Ethics
- REL 120 Exploring World Religions
- REL 125 Religions of the East
- REL 126 Religions of the West
- WGS 201 Global Women's Studies

One more Introductory course for 3 credit hours in either Humanities or Social & Behavioral Science.

One Advance Further Study Course for 3 credit hour in either Humanities or Social & Behavioral Science (may not take further study in Philosophy or Fine Arts). For a list of courses please visit www.wichita.edu/engineering/ or contact the College of Engineering Dual Advisor.

NATURAL SCIENCE ELECTIVES
(One course required for Aerospace and Mechanical Engineering majors ONLY):
- BIOL 125 General Botany (LAB)
- BIOL 127 General Zoology (LAB)
- BIOL 135 Prin Cell/Molecular Biology (LAB)
- BIOL 150 Biology/Organisms (LAB)
- CHEM 131/132 General Chemistry II/lab
- GEOS 130 General Geology (LAB)

ENGINEERING DEGREE PROGRAMS:
Aerospace Engineering (AE), Biomedical Engineering (BIOME), Computer Engineering (CE), Computer Science (CS), Electrical Engineering (EE), Industrial Engineering (IE), Manufacturing Engineering (IME), Mechanical Engineering (ME) and Engineering Technology (ET).

REQUIRED CORE COURSES FOR ALL ENGINEERING MAJORS:
- CHEM 124/125 General Chemistry I/Lab
- ENGR 131 Engineering Graphics I (except BIOME, CE, CS and EE)
- MATH 241 Calculus I
- MATH 242 Calculus II
- MATH 243 Calculus III (except BIOME, CE, CS and ET)
- PHYS 220 Engineering Physics I (except ET)
- PHYS 221 Engineering Physics II (except ET)
OTHER REQUIRED COURSES BY MAJORS:

Aerospace Engineering (AE):
- ENGR 254 Dynamics
- ENGR 251 Statics

Biomedical Engineering (BIOME):
- CHEM 131/132 General Chemistry II/lab
- CHEM 140 Principles of Organic Chemistry
- BIOL 125 General Botany (LAB) AND
  - OR
  - BIOL 135 Prin of Cell & Molecular Biology (LAB)
- BIOL 144 Human Anatomy & Physiology (LAB)
- ENGR 251 Statics

Computer Engineering (CE):
- CS 200 Concepts/Program Algorithms/C++
- CS 250 Basic Data Structures Using C++
- ENGR 251 Statics

Computer Science (CS):
- CS 200 Concepts/Program Algorithms/C++
- CS 250 Basic Data Structures Using C++

Electrical Engineering (EE):
- CS 200 Concepts/Program Algorithms/C++
- ENGR 251 Statics

Industrial Engineering (IE):
- CS 200 Concepts/Program Algorithms/C++
- ENGR 251 Statics

Manufacturing Engineering (IME):
- ENGR 251 Statics

Mechanical Engineering (ME):
- ENGR 254 Dynamics
- ENGR 251 Statics

Engineering Technology (ET) include the following concentrations (Engineering Technology Management, Civil Engineering Technology, Cybersecurity and Mechatronics Technology):
- ACCT 121 Accounting I AND
- ACCT 122 Accounting II (ONLY for Engineering Technology Management)
- CS 200 Concepts/Program Algorithms/C++
- ENGR 131 Engineering Graphics
- MATH 171 College Algebra
- MATH 172 College Trigonometry
- MKT 230 Marketing (ONLY for Engineering Technology Management)
- PHYS 130 College Physics I (LAB)

To graduate from an engineering program, a candidate must attain 2.0 grade point average (GPA) in each of the following categories:
- all college and university work attempted (cumulative GPA)
- all work attempted at WSU-WSU GPA
- all work in the student’s major at WSU.

Most engineering courses have prerequisites and/or co-requisites; the prerequisite course must have been completed before a course can be taken, and the co-requisite must have been taken prior to or to be taken concurrently with the required course sequence.

For information on courses needed to complete an Associate Degree, please contact your Community College Advisor.

For more information, go to: www.wichita.edu/engineering
or
Contact: Norman Bent
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Or at (316) 978-6460