

Barton County Community College
Transfer Program to University of Kansas
B.S. in Chemical & Petroleum Engineering
(Subplans of Environmental, Biomedical, Petroleum, Pre-Med)

Number to call at KU for advising: (785) 864-4965

Website: <http://www.cpe.engr.ku.edu/>

Timely completion of prerequisites is imperative due to tight sequencing of major courses. Consult the KU catalog and seek KU advising early.

Transfer students must have at least a 2.5 GPA and proof of competency in Calculus.

Requirements (all students):

Chemical Engineering (including ALL subplans):

KU Course Requirements

Barton Equivalents

| ENGLISH (2 courses) | | | | | Core |
|---------------------------------------|---|--|-------------------------------|---|-------------|
| ENGL 101 Composition | 3 | | ENGL 1203 or 1204 Composition | 3 | GE21 |
| ENGL 102 Critical Reading and Writing | 3 | | ENGL 1206 or 1207 Composition | 3 | GE21 |

| MATHEMATICS | | | | | Core |
|------------------------------------|---|--|--|---|-------------|
| MATH 125 Calculus | 4 | | MATH 1832 Analytical Geometry and Calculus | 5 | GE12 |
| MATH 126 Calculus 2 | 4 | | MATH 1834 Analytical Geometry and Calculus 2 | 5 | |
| MATH 127 Calculus 3 | 4 | | MATH 1836 Analytical Geometry and Calculus 3 | 3 | |
| MATH 220 Differential Equations | 3 | | No equivalent | | |
| MATH 290 Elementary Linear Algebra | 2 | | No equivalent | | |

| NATURAL SCIENCES | | | | | Core |
|------------------------------------|---|--|---------------------------------|---|------------------|
| PHSX 211 & 216 Engineering Physics | 5 | | PHYS 1604 Engineering Physics | 5 | GE3N, GE11, GE12 |
| PHSX 212 & 236 Engineering Physics | 4 | | PHYS 1606 Engineering Physics 2 | 5 | GE3N |
| CHEM 130 Chemistry | 5 | | CHEM 1806 College Chemistry I | 5 | GE12, GE3N |
| CHEM 135 Chemistry 2 | 5 | | CHEM 1808 College Chemistry II | 5 | GE3N, GE12 |
| CHEM 330 & 331 Organic Chemistry | 5 | | CHEM 1814 Organic Chemistry 1 | 5 | |

Petroleum Engineering:

KU Course Requirements

Barton Equivalents

| MATHEMATICS | | | | | Core |
|------------------------------------|---|--|--|---|-------------|
| MATH 125 Calculus | 4 | | MATH 1832 Analytical Geometry and Calculus | 5 | GE12 |
| MATH 126 Calculus 2 | 4 | | MATH 1834 Analytical Geometry and Calculus 2 | 5 | |
| MATH 127 Calculus 3 | 4 | | MATH 1836 Analytical Geometry and Calculus 3 | 3 | |
| MATH 220 Differential Equations | 3 | | No equivalent | | |
| MATH 290 Elementary Linear Algebra | 2 | | No equivalent | | |

| NATURAL SCIENCES | | | | | Core |
|------------------------------------|---|--|-----------------------------------|---|------------------|
| PHSX 211 & 216 Engineering Physics | 5 | | PHYS 1604 Engineering Physics | 5 | GE3N, GE11, GE12 |
| PHSX 212 & 236 Engineering Physics | 4 | | PHYS 1606 Engineering Physics 2 | 5 | GE3N |
| CHEM 130 Chemistry | 5 | | CHEM 1806 College Chemistry I | 5 | GE12, GE3N |
| CHEM 135 Chemistry 2 | 5 | | CHEM 1808 College Chemistry II | 5 | GE12, GE3N |
| GEOL 101 & 103 How the World Works | 3 | | PHSC 1402 & 1403 Intro to Geology | 5 | GE3N |

| COMMUNICATION | | | | | Core |
|--------------------------|---|--|---------------------------|---|-------------|
| COMS 130 Public Speaking | 3 | | COMM 1230 Public Speaking | 3 | GE22 |

KU Core Curriculum (additional requirements not covered by degree requirements)Additional courses that satisfy the KU Core are continuously updated and available at <http://kucore.ku.edu/courses>.**KU Course Requirements****Barton County Equivalents**

| Goal 2: Communication (3 Units) -two from outcome 1 and one outcome 2 | | | |
|--|---|---|---|
| Outcome 1 (not needed for Chemical) | | GE21 | |
| ENGL 101 Composition | 3 | ENGL 1203 English Composition - Honors | 3 |
| ENGL 101 Composition | 3 | ENGL 1204 English Composition I | 3 |
| ENGL 102 Critical Reading and Writing | 3 | ENGL 1206 English Composition II | 3 |
| ENGL 102 Critical Reading and Writing | 3 | ENGL 1207 English Composition II - HONORS | 3 |
| ENGL 211 Introduction to Drama | 3 | LITR 1228 Introduction to Drama | 3 |
| HWC 204 Western Civ 1 | 3 | HIST 1409 Hist and Phil of West Cul to 1500 | 3 |
| Outcome 2 (not needed for Petroleum) | | GE22 | |
| COMS 130 Speaker-Audience Communication | 3 | COMM 1230 Public Speaking | 3 |

| Goal 3: Breadth of Knowledge (3 Units) -one from each category | | | |
|---|---|---|---|
| Arts & Humanities | | GE3H | |
| | 3 | ARTS 1200 Art Appreciation | 3 |
| REL 104 Intro to Religious Studies | 3 | RELI 1311 World Religions | 3 |
| HA 150 Western Art - Ancient to Medieval | 3 | ARTS 1201 Survey of Art History | 3 |
| ART 101 Drawing I | 3 | ARTS 1214 Drawing I | 3 |
| | | HIST 1400 American History to 1877 | 3 |
| HIST 128 Hist of US through Civil War | 3 | HIST 1401 American History 1865-present | 3 |
| HIST 129 Hist of US after Civil War | 3 | HIST 1402 American History 1877-present | 3 |
| | | HIST 1403 American History to 1865 | 3 |
| | | HIST 1416 American Military History | 3 |
| | | HIST 1450 Hist of World Civilization to 1500 | 3 |
| | | HIST 1452 Hist of World civilization 1500-present | 3 |
| | | LITR 1212 The Short Story | 3 |
| | | LITR 1414 The Novel | 3 |
| | | LITR 1215 World Literature | 3 |
| ENGL 211 Introduction to Drama | 3 | LITR 1228 Introduction to Drama | 3 |
| | | LITR 1234 Shakespeare | 3 |
| PHIL 140 Introduction to Philosophy | 3 | PHIL 1602 Introduction to Philosophy | 3 |
| PHIL 160 Ethics | 3 | PHIL 1604 Introduction to Ethics | 3 |
| PHIL 148 Reason and Argument | 3 | PHIL 1605 Reason and Argument | 3 |
| | | RELI 1311 World Religions | 3 |
| THR 100 Introduction to Theater | 3 | THEA 1300 Introduction to Theater | 3 |
| THR 106 Acting I | 3 | THEA 1302 Acting I | 3 |
| Social Sciences | | GE3S | |
| ANTH 100 General Anthropology | 3 | ANTH 2812 Intro to Anthropology | 3 |
| ANTH 108 Intro to Cultural Anthropology | 3 | ANTH 1816 Cultural Anthropology | 3 |
| EPSY S305 Preschool Child | 3 | CHLD 1505 Child Development | 3 |
| COMS 244 Intro Interpersonal Communications | 3 | COMM 1200 Interpersonal Communications | 3 |
| | | COMM 1220 Organizational Communications | 3 |
| ECON 104 Introductory Economics | 3 | ECON 1607 Intro to Economics | 3 |
| ECON 142 Prin of Microeconomics | 3 | ECON 1612 Prin of Microeconomics | 3 |
| ECON 144 Prin of Macroeconomics ECON 142 | 3 | ECON 1610 Prin of Macroeconomics | 3 |
| | | HIST 1425 Women and the American Experience | 3 |
| POLS 110 Intro to US Politics | 3 | POLS 1800 Government of the United States | 3 |
| | | POLS 1801 Introduction to Political Science | 3 |
| POLS 170 Intro to International Relations | 3 | POLS 1804 International Relations | 3 |
| PSYC 104 General Psychology | 3 | PSYC 1000 General Psychology | 3 |
| | | PSYC 1014 Developmental Psychology | 3 |
| PSYC 120 Personality | 3 | PSYC 1034 Theories of Personality | 3 |
| SOC 104 Elements of Sociology | 3 | SOCI 1100 Introduction to Sociology | 3 |
| | | CHLD 1505 Preschool Child | 3 |

| Goal 4: Culture and Diversity (One Unit from each outcome) | | | |
|---|---|--|---|
| Outcome 1 | | AE41 | |
| SOC 104 Elements of Sociology | 3 | SOCI 1100 Introduction to Sociology | 3 |
| SOC 160 Social Problems and American Values | 3 | SOCI 1104 Contemporary Social Problems | 3 |
| Outcome 2 | | AE42 | |
| ANTH 100 General Anthropology | 3 | ANTH 2812 Intro to Anthropology | 3 |
| ANTH 108 Intro to Cultural Anthropology | 3 | ANTH 1816 Cultural Anthropology | 3 |
| REL 104 Intro to Religious Studies | 3 | RELI 1311 World Religions | 3 |
| GEOG 100 World Regional Geography | 3 | ANTH/GEOG 1819 World and Regional Geography | 3 |
| HA 150 Western Art: Ancient to Medieval | 3 | ARTS 1201 Art History Survey I | 3 |
| HWC 204 Western Civilization I | 3 | HIST 1409 Hist and Phil of West Culture to 1500 | 3 |
| HWC 205 Western Civilization 2 | 3 | HIST 1411 Hist and Phil of West Culture 1500-present | 3 |
| GERM 104 Elementary German | 5 | LANG 1900 Elementary German | 5 |
| GERM 108 Elementary German II | 5 | LANG 1902 Elementary German 2 | 5 |
| GERM 201 Intermediate German I | 3 | LANG 1904 Intermediate German | 3 |
| GERM 202 Intermediate German II | 3 | LANG 1905 Intermediate German 2 | 3 |
| SPAN 212 Intermediate Spanish | 3 | LANG 1912 Intermediate Spanish | 3 |
| | | LITR 1215 World Literature | 3 |
| POLS 170 International Relations | 3 | POLS 1804 International Relations | 3 |
| | | POLS 1810 the Middle East in Modern Times | 3 |

- In order to graduate in four years, a student must transfer to KU after one year
- Pass/Fail Policy. Only courses used to fulfill English, Humanities, and Social Science requirements will be accepted with a "P" grade
- *PHSX 211 satisfies the PHSX 210 requirement for Engineering at KU
- "S" before a number (Ex. MATH S365) indicates the course will be satisfied but will not count toward the number of Junior/Senior (upper-level) hours required for graduation
- The requirements listed above are subject to annual change
- A maximum of 64 hours of community college course work can be applied toward a KU degree
- Courses with a grade of D or below do not transfer