**Southwestern Community College Transfer Guide**

**Southwestern Community College / Iowa State University  
Department of Agriculture and Biosystems Engineering**

Both must be taken to equal Chem 167/167L

**biorenewable resources engineering option**

SWCC Catalog; ISU 2012-2013 Catalog

**Recommended Core Courses for Biological Systems Engineering Students with an emphasis on Biorenewable Resources Engineering:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***SWCC Courses*** | | ***Title*** | ***Cr.*** | ***ISU Course*** |
|  | |  |  |  |
| **Communications** | |  |  |  |
| ENG 105 | | Composition I | 3 | ENGL 150 |
| ENG 106 | | Composition II | 3 | ENGL 250 |
| SPC 101 | | Fundamentals of Oral Communication | 3 | SPCM 212 |
|  | |  |  |  |
| **Mathematical Sciences** | |  |  |  |
| MAT 210 | | Calculus I | 4 | MATH 165 |
| MAT 216 | | Calculus II | 4 | MATH 166 |
|  | |  |  |  |
| **Biological and Physical Science Common Core** | | |  |  |
| CHM 166 | General Chemistry I | | 4 | CHEM 177 |
|  | General Chemistry I Lab | | 1 | CHEM 177L |
| CHM 176 | General Chemistry II | | 4 | CHEM 178 |
|  | General Chemistry II Lab | | 1 | CHEM 178L |
| PHY 212 | Classical Physics I (with lab) | | 5 | PHYS 221 |
| PHY 222 | Classical Physics II (with lab) | | 5 | PHYS 222 |
| BIO 113 | General Biology II | | 3 | BIOL 212 |
|  |  | |  |  |
| **Social Sciences and Humanities** *(6 credits needed)* |  | |  |  |
| ANT 105 | Cultural Anthropology | | 3 | ANTHR 201 |
| ART 203 | Art History I | | 3 | ART H 280 |
| ART 204 | Art History II | | 3 | ART H 281 |
| SPC 122 | Interpersonal Communication | | 3 | COMST 102 |
| ECN 120 | Principles of Macroeconomics | | 3 | ECON 102 |
| ECN 130 | Principles of Microeconomics | | 3 | ECON 101 |
| LIT 101 | Introduction to Literature | | 3 | ENGL 201 |
| LIT 105 | Children’s Literature | | 3 | HD FS 240 |
| HIS 110 | Western Civilization: Ancient to Early Modern | | 3 | HIST 201 |
| HIS 111 | Western Civilization: Early Modern to Present | | 3 | HIST 202 |
| HIS 151 | U.S. History to 1877 | | 3 | HIST 221 |
| HIS 152 | U.S. History since 1877 | | 3 | HIST 222 |
| MUS 100 | Music Appreciation | | 3 | MUSIC 102 |
| PHI 101 | Introduction to Philosophy | | 3 | PHIL 201 |
| PHI 105 | Introduction to Ethics | | 3 | PHIL 230 |
| POL 111 | American National Government | | 3 | POL S 215 |
| PSY 111 | Introduction to Psychology | | 3 | PSYCH 101 |
| PSY 121 | Developmental Psychology | | 3 | PSYCH 230 |
| PSY 251 | Social Psychology | | 3 | PSYCH 280 |
| REL 101 | Survey of World Religions | | 3 | RELIG 205 |
| SOC 110 | Introduction to Sociology | | 3 | SOC 134 |
| SOC 115 | Social Problems | | 3 | SOC 235 |
| SOC 120 | Marriage and Family | | 3 | SOC 219 |
|  | *\*or higher level foreign language* | |  |  |
|  |  | |  |  |
| **International Perspective**  *(3 credits needed)* |  | |  |  |
| ANT 105 | Cultural Anthropology | | 3 | ANTHR 201 |
| ART 203 | Art History I | | 3 | ART H 280 |
| ART 204 | Art History II | | 3 | ART H 281 |
| HIS 110 | West Civilization: Ancient to Early Modern | | 3 | HIST 201 |
| HIS 111 | West Civilization: Early Modern to Present | | 3 | HIST 202 |
| MUS 100 | Music Appreciation | | 3 | MUSIC 102 |
| REL 101 | Survey of World Religion | | 3 | RELIG 205 |
| FLS 142 | Elementary Spanish II\* | | 4 | SPAN 102 |
|  | *\*or higher level foreign language course* | |  |  |
|  |  | |  |  |
| **U.S. Diversity**  *(3 credits needed)* |  | |  |  |
| LIT 105 | Children’s Literature | | 3 | HD FS 240 |
| SOC 115 | Social Problems | | 3 | SOC 235 |
|  |  | |  |  |
| **Biorenewable Resources Engineering Option** | | |  |  |
| CHM 261 | | Organic Chemistry I | 3 | CHEM 331 |
|  | | Organic Chemistry I Lab | 1 | CHEM 331L |
| CHM 271 | | Organic Chemistry II | 3 | CHEM 332 |
|  | | Organic Chemistry II Lab | 1 | CHEM 332L |
|  | |  |  |  |
| *A total of 65 community college credits can be transferred to Iowa State University.* | | | | |