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| <b>IOWA STATE UNIVERSITY</b><br><b>College of Engineering</b> | <b>Elgin Community College</b><br><b>Transfer Plan</b> |
|---|--|

| Courses used in all engineering degree programs at ISU<br>>> If offered at your school, focus on these courses first << |    |                                     |         |    |
|---|----|-------------------------------------|---------|----|
| Iowa State  | Cr | Iowa State Course Name              | ECC     | Cr |
| CHEM 1770 (or 1670)   | 4  | General Chemistry I (for Engineers) | CHM 142 | 5  |
| ENGL 1500   | 3  | Critical Thinking and Communication | ENG 101 | 3  |
| ENGL 2500   | 3  | WOVE Composition                    | ENG 102 | 3  |
| ENGR 1010   | R  | Engineering Orientation             | n/a     |    |
| ENGR 1600   | 3  | Engineering Problems                | n/a     |    |
| LIB 1600  | 1  | Information Literacy                | n/a     |    |
| MATH 1650   | 4  | Calculus I                          | MTH 190 | 5  |
| MATH 1660   | 4  | Calculus II                         | MTH 210 | 5  |
| PHYS 2310/2310L   | 5  | Classical Physics I and Lab         | PHY 211 | 5  |

\*The College of Engineering only accepts grades of “C” or higher for transfer courses\*

| Additional courses used in specific engineering degree programs at ISU |  |    |  |                       |    |
|--|--|----|--|-----------------------|----|
| Iowa State   | Engineering Major(s) Requiring Course<br>(see abbreviation key below)                  | Cr | Iowa State Course Name   | ECC                   | Cr |
| BIOL 2110 <sup>+</sup>   | AE, BME  | 3  | Principles of Biology I  | BIO 113               | 4  |
| BIOL 2120 <sup>+</sup>   | BSE, BME   | 3  | Principles of Biology II   | BIO 114               | 4  |
| CE 2740  | AerE, AE, BSE, CE, ConE, EnvE, IE, ME  | 3  | Engineering Statics  | EGR 152               | 3  |
| CHEM 1780+Lab  | AE, BSE, BME, ChE, CE, EnvE, MatE  | 4  | General Chemistry II and Lab   | CHM 143               | 5  |
| CHEM 2310+Lab  | BSE, BME, CE(Envr), EnvE   | 4  | Elementary Organic Chemistry and Lab                                       | CHM 170               | 5  |
| CHEM 3310+Lab  | ChE (possibly BSE)   | 5  | Organic Chemistry I and Lab  | CHM 234               | 5  |
| CHEM 3320+Lab  | ChE (possibly BSE)   | 5  | Organic Chemistry II and Lab   | CHM 235               | 5  |
| ECON 1010 or ECON 1020   | ME, SE (also accepted as an elective by all other engineering majors)                  | 3  | Principles of Microeconomics (1010) or Principles of Macroeconomics (1020) | ECN 201<br>Or ECN 202 | 3  |
| MATH 2070  | EE, CprE   | 3  | Matrices and Linear Algebra  | MTH 240               | 4  |
| MATH 2650  | Required (or accepted as math elective) in all majors except AE(LW), BSE               | 4  | Calculus III   | MTH 230               | 5  |
| MATH 2670  | All  | 4  | Differential Equations   | MTH 250               | 4  |
| ME 2310  | AerE, AE, BSE, ConE(MCH), EnvE, IE, ME   | 3  | Engineering Thermodynamics I   | EGR 192               | 3  |
| ME 3450  | AerE, AE(VS), CE, ME   | 3  | Engineering Dynamics   | EGR 252               | 3  |
| PHYS 2320+Lab  | AerE, BME, ChE, ConE, EE, IE, MatE, ME   | 5  | Classical Physics II and Lab   | PHY 212               | 5  |
| SP CM 2120   | AE, BSE, CE, EnvE, IE, ME, SE (or an elective by AerE, BME, ChE, CprE, CybE, EE, MatE) | 3  | Fundamentals of Public Speaking  | CMS 101<br>or CMS 102 | 3  |

\*ECC BIO 113 & BIO 114 must both be completed in order to transfer as credit for ISU BIOL 2110 and BIOL 2120

| Abbreviation key for majors listed above |   |                 |  |
|--|---|-----------------|--|
| Abbreviation                             | Major   | Abbreviation    | Major  |
| AerE                                     | Aerospace Engineering   | ConE            | Construction Engineering   |
| AE                                       | Agricultural Engineering  | BE; EL; HH; MCH | Building Emphasis; Electrical Emphasis; Heavy/Highway; Mechanical Emphasis |
| LW; AP; VS                               | Land&Water Resources option; Animal Production Systems option; Vehicle Systems option | CybE            | Cyber Security Engineering   |
| BSE                                      | Biological Systems Engineering  | EE              | Electrical Engineering   |
| BME                                      | Biomedical Engineering  | EnvE            | Environmental Engineering  |
| ChE                                      | Chemical Engineering  | IE              | Industrial Engineering   |
| CE                                       | Civil Engineering   | MatE            | Materials Engineering  |
| Envr                                     | Environmental Specialization  | ME              | Mechanical Engineering   |
| CprE                                     | Computer Engineering  | SE              | Software Engineering   |

## General Education: Social Science/Humanities (SS/H) Requirements

- Engineering degree programs require between 9 and 15 general education credits in social sciences and humanities (SS/H). The list below offers course options that are widely accepted by ISU engineering majors; however, each program has unique requirements—please confirm choices on an individual basis if you know your intended engineering major.
- Iowa State University requires each student to complete three credits of course work categorized as “U.S. Cultures and Communities” (indicated below with <sup>1</sup>); and three credits of course work categorized as “International Perspective” (indicated below with <sup>2</sup>). These can be included within the SS/H requirements.

| Social science/humanities (SS/H) courses widely accepted in ISU engineering degree programs |    |   |                    |    |
|---|----|---|--------------------|----|
| Iowa State  | Cr | Iowa State Course Name                                    | ECC                | Cr |
| ANTHRO 2010 <sup>2</sup>  | 3  | Intro to Cultural Anthropology                            | ATR 220            | 3  |
| ECON 1010 / ECON 1020   | 3  | Principles of Microeconomics / Macroeconomics             | ECN 201 or 202     | 3  |
| HD FS 2400 <sup>1</sup>   | 3  | Literature for Children                                   | LIT 225            | 3  |
| HD FS 2760 <sup>1</sup>   | 3  | Human Sexuality   | SOC 225 or PSY 225 | 3  |
| HIST 2010 <sup>2</sup>  | 3  | Intro to Western Civilization I                           | HIS 101            | 3  |
| HIST 2020 <sup>2</sup>  | 3  | Intro to Western Civilization II                          | HIS 102            | 3  |
| HIST 2210   | 3  | Survey of U.S. History I                                  | HIS 151            | 3  |
| HIST 2220   | 3  | Survey of U.S. History II                                 | HIS 152            | 3  |
| MUSIC 1020 <sup>2</sup>   | 3  | Intro to Music Listening                                  | MUS 105            | 3  |
| PHIL 2010   | 3  | Intro to Philosophy                                       | HUM 110            | 3  |
| POL S 1110  | 3  | Intro to American Government                              | POS 150            | 3  |
| POL S 1250 <sup>2</sup>   | 3  | Democracy and Dictatorship: Intro to Comparative Politics | POS 250            | 3  |
| POL S 1210 <sup>2</sup>   | 3  | Intro to International Politics                           | POS 251            | 3  |
| PSYCH 1010  | 3  | Intro to Psychology                                       | PSY 100            | 3  |
| PSYCH 2300  | 3  | Developmental Psychology                                  | PSY 218            | 3  |
| PSYCH 2800  | 3  | Social Psychology   | SOC 215 or PSY 215 | 3  |
| RELIG 2050 <sup>2</sup>   | 3  | World Religions   | HUM 201 or 203     | 3  |
| SOC 1340  | 3  | Intro to Sociology  | SOC 100            | 3  |
| SOC 2190  | 3  | Sociology of Intimate Relationships                       | SOC 210            | 3  |
| SOC 2350 <sup>1</sup>   | 3  | Social Problems and American Values                       | SOC 201            | 3  |

## More information and resources

- Please use this transfer plan as a guide as you confirm course choices with an academic advisor in your major of interest.
- Additional transfer student resources are available at [www.engineering.iastate.edu/transfer-students](http://www.engineering.iastate.edu/transfer-students).
- Email questions to [engineering@iastate.edu](mailto:engineering@iastate.edu).

## Sample Elgin Community College course plan – Year One

### SEMESTER 1

| ECC Course Number | Credits | Course Name/Topic     | Equivalent course at Iowa State |
|-------------------|---------|-----------------------|---------------------------------|
| ENG 101           | 3       | English/Composition I | ENGL 1500                       |
| MTH 190           | 5       | Calculus I            | MATH 1650                       |
| HIS 101           | 3       | Western Civ I         | HIST 2010                       |
| CHM 142           | 5       | General Chemistry I   | CHEM 1770 (or CHEM 1670)        |
|                   | = 16 cr |                       |                                 |

### SEMESTER 2

| ECC Course Number | Credits | Course Name/Topic      | Equivalent course at Iowa State |
|-------------------|---------|------------------------|---------------------------------|
| ENG 102           | 3       | English/Composition II | ENGL 2500                       |
| MTH 210           | 5       | Calculus II            | MATH 1660                       |
| PHY 211           | 5       | Classical Physics I    | PHYS 2310/2310L                 |
| ECN 201           | 3       | Microeconomics         | ECON 1010                       |
|                   | = 16 cr |                        |                                 |