

Engineering Science AS (EGRS)

| CR | COURSE | COURSE TITLE | SUNY GEN ED |
|--|--|--|------------------------------|
| 1-2 | HRD 100, HRD 100A or HRD 110 | FRESHMAN EXPERIENCE | |
| 3 | ENG 101 | <i>Introduction to College Writing</i> | GCWO |
| 3 | ENG 102, ENG 103, ENG 104, ENG 105, ENG 106, ENG 107, ENG 108, ENG 109 or ENG 110 | ENG 110 <i>Elements of Technical Writing</i> recommended | GCWO |
| 3 | SUNY GEN ED Social Sciences SUNY GEN ED The Arts SUNY GEN ED Humanities SUNY GEN ED World Languages | | GSSC GART GHUM GWRL |
| 3 | SUNY GEN ED Diversity: Equity, Inclusion and Social Justice | ECO 202 <i>Microeconomics</i> recommended | GDVR |
| 4 | CHM 111 (Prereq Required) | <i>General Chemistry I</i> | GNSL |
| 3 | CIS 143 (Prereq Required) | <i>Introduction to Programming</i> | |
| 3 | EGR 120 | <i>Introduction to Engineering</i> | |
| 4 | EGR 105 (Prereq Required) | <i>Engineering Physics I</i> | GNSL |
| 4 | EGR 106 (Prereq Required) | <i>Engineering Physics II</i> | GNSL |
| 4 | EGR 204 (Spring only - Prereq Required) | <i>Engineering Physics III</i> | GNSL |
| 4 | EGR 222 (Fall only - Prereq Required) | <i>Circuit Analysis</i> | |
| 4 | MAT 131 (Prereq Required) | <i>Calculus I</i> | GMAT |
| 4 | MAT 132 (Prereq Required) | <i>Calculus II</i> | GMAT |
| 4 | MAT 231 (Fall only - Prereq Required) | <i>Calculus III</i> | |
| 4 | MAT 232 (Spring only - Prereq Required) | <i>Differential Equations and Series</i> | |
| Choose 9-10 credits by advisement | | | |
| | CHM 112 (Prereq Required) | <i>General Chemistry II</i> | |
| | CHM 203 (Fall only - Prereq Required) | <i>Organic Chemistry I</i> | |
| | CIS 144 (Prereq Required) | <i>Intermediate Programming in a Windows Environment</i> | |
| | CIS 243 (Spring only – Prereq Required) | <i>Data Structures and Objects in C++</i> | |
| | EGR 183 (Spring even years only - Prereq Required) | <i>Digital Logic Design</i> | |
| | EGR 207 (Fall only - Prereq Required) | <i>Mechanics I – Statics</i> | |
| | EGR 208 (Spring only - Prereq Required) | <i>Dynamics</i> | |
| | EGR 209 (Spring only - Prereq Required) | <i>Mechanics II – Mechanics of Materials</i> | |
| 64 | Minimum credits required for graduation | | |

Note: Please review the back of this form for additional information.

❖ **COURSE PREREQUISITES:**

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|----------------|--|----------------|--------------------------|
| CHM 111 | CHM 103 (or Regents Chemistry 70) and MAT 108 (or Regents Math B 70 or Algebra 2/Trigonometry 70) | EGR 105 | MAT 131 |
| CHM 112 | CHM 111 with grade of C or better | EGR 106 | EGR 106 |
| CHM 203 | CHM 112 | EGR 183 | MAT 108 with C or better |
| CIS 143 | MAT 108 or CIS 122 or CIS 140 | EGR 204 | EGR 105 and MAT 132 |
| CIS 144 | CIS 140 with C or better or CIS 143 with C or better | EGR 207 | EGR 105 |
| CIS 243 | CIS 144 (with C or better) <u>and</u> MAT 129 | EGR 208 | EGR 207 and MAT 231 |
| MAT 131 | MAT 121 with C or better within 4 years <u>and</u> MAT 125 with C or better within 4 years or equivalent | EGR 209 | EGR 207 and MAT 231 |
| MAT 132 | MAT 131 with C or better within 4 years | EGR 222 | MAT 132 |
| MAT 231 | MAT 132 with C or better within 4 years | | |
| MAT 232 | MAT 231 with C or better within 4 years | | |

❖ **RECOMMENDED SEQUENCE:**

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|---|--|------------------------|--|
| FIRST YEAR | | | |
| First Semester | | Second Semester | |
| 1-2 | HRD 100, HRD 100A or HRD 110 | | |
| 3 | ENG 101 | 3 | ENG 102 – ENG 110 (ENG 110 recommended) |
| 4 | MAT 131 | 4 | MAT 132 |
| 3 | EGR 120 | 4 | EGR 105 |
| 3 | CIS 143 | 3 | SUNY GEN ED Social Sciences, SUNY GEN ED The Arts, SUNY GEN ED Humanities or SUNY GEN ED World Languages |
| 4 | CHM 111 | 0-4 | Engineering Core elective (See Note 1) |
| SECOND YEAR | | | |
| Third Semester | | Fourth Semester | |
| 4 | EGR 222 | 3 | SUNY GEN ED Diversity: Equity, Inclusion and Social Justice |
| 4 | MAT 231 | 4 | MAT 232 |
| 4 | EGR 106 | 4 | EGR 204 |
| 3-4 | Engineering Core elective (See Note 1) | 3-6 | Engineering Core elective (See Note 1) |
| NOTES: | | | |
| 1. See Core Engineering lists for course requirements. Substitutions can be made to Core coursework depending upon transfer requirements of 4-year schools. | | | |
| 2. EGR 183 is offered even years - Spring only | | | |

❖ **DEFINITION OF COURSE REQUIREMENTS:** See <http://catalog.sunyacc.edu/academics/degreerequirements>

❖ **FINANCIAL AID RECIPIENTS:** A student **must** choose courses that are within their degree program. Students are encouraged to meet with their assigned academic advisor for any questions about course selection and degree program requirements. Please visit the Office of Financial Aid for any aid-related questions.

❖ **SUNY GEN ED KNOWLEDGE AREAS:** See <http://catalog.sunyacc.edu/academics/generaleducation>

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| ❖ Mathematics (and Quantitative Reasoning) (GMAT) | ❖ Diversity: Equity, Inclusion and Social Justice (GDVR) |
| ❖ Natural Sciences (and Scientific Reasoning) (GNCS/L) | ❖ Humanities (GHUM) |
| ❖ Social Sciences (GSSC) | ❖ The Arts (GART) |
| ❖ US History and Civic Engagement (GUSC) | ❖ World Languages (GWRL) |
| ❖ World History and Global Awareness (GGLB) | ❖ Communication – Written and Oral (GCWO) |