

AA Course Sequence Guide - Full-Time Enrollment
Engineering - Chemical Pathway
Associate in Arts Degree | Code: (10906) | 60 Credits
Effective Term: Fall 2025 (2257)

| SEMESTER | COURSE ID | COURSE TITLE | CREDITS | PRE/COREQUISITES |
|----------------------|-----------------------------|---|-----------|--|
| Semester 1 | ENC 1101 (W) | English Composition 1 | 3 | Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption). |
| | EGN 1008C | Introduction to Engineering | 3 | |
| | <i>Humanities</i> | ARH 1000, HUM 1020, LIT 2000 (W), MUL 1010, PHI 2010 (W), THE 2000 (W) | 3 | Prerequisite for LIT 2000: ENC 1101 |
| | MAC 1105 (C) | College Algebra | 3 | Prerequisite: MAT 1033♦ ♦Students must seek advisement for proper mathematics course from discipline chairperson. |
| | SLS 1106 | First Year Experience Seminar | 1 | |
| | TOTAL CREDITS | | 13 | |
| Semester 2 | ENC 1102 (W) | English Composition 2 | 3 | Prerequisite: ENC 1101 |
| | <i>Social Sciences</i> | AMH 2010, AMH 2020, POS 2041 | 3 | |
| | <i>Computer Competency</i> | Computer Skills Placement (CSP) ---or--- CGS 1060C | | Departmental Recommendation: Computer Skills Placement (CSP) |
| | CHM 1045 | General Chemistry and Qualitative Analysis | 3 | Prerequisites: MAC 1105; CHM1025 or a passing score on the CART exam Corequisites: CHM 1045L |
| | CHM 1045L | General Chemistry and Qualitative Analysis Lab | 2 | Prerequisites: MAC 1105; CHM1025 or a passing score on the CART exam Corequisites: CHM 1045 |
| | MAC 1140 (C) | Pre-Calculus Algebra | 3 | Prerequisite: MAC 1105 |
| TOTAL CREDITS | | 14 | | |
| Semester 3 | MAC 1114 (C) | Trigonometry | 3 | Prerequisite: MAC 1105 or MAC 1106 |
| | TOTAL SUMMER CREDITS | | 3 | |
| Semester 4 | MAC 2311 (C) | Calculus and Analytical Geometry 1 | 5 | Prerequisites: MAC1106 and MAC1114, or MAC1140 and MAC1114, or MAC1147 |
| | <i>Social Sciences</i> | AMH 2010, AMH 2020, ANT 2000, DEP 2000, ECO 2013 (W), POS 2041, PSY 2012, SYG 2000, WOH 2012, WOH 2022 | 3 | Note: Check with an MDC advisor for requisite information. |
| | <i>Oral Communication</i> | ENC 2300 (W), SPC 1017 (W), SPC 2608 (W) | 3 | Prerequisite for ENC 2300: ENC 1101, ENC 1102 Prerequisite for SPC 2608: ENC 0025 |
| | PHY 1025 | Basic Physics | 3 | Prerequisite: MAC 1105 |
| | TOTAL CREDITS | | 14 | |
| Semester 5 | <i>Humanities</i> | ARC 2701, ARC 2702 (W), ARH 1000, ARH 2050, ARH 2051 (W), ARH 2740 (W), DAN 2100, DAN 2130 (W), HUM 1020, LIT 2000 (W), LIT 2120 (W), MUH 2111, | 3 | Note: Check with an MDC advisor for requisite information. |

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| | | MUH 2112 (W), MUL 1010, MUL 2380 (W), PHI 2010 (W), PHI 2600 (W), THE 2000 (W) | | |
| | MAC 2312 (C) | Calculus and Analytical Geometry 2 | 4 | Prerequisite: MAC 2311 |
| | PHY 2048 | Physics with Calculus 1 | 4 | Prerequisites: High school physics or PHY 1025, PHY 2053 or departmental approval and MAC 2311 Corequisite: PHY 2048L |
| | PHY 2048L | Physics with Calculus 1 Lab | 1 | Prerequisite: MAC 2311 and High School Physics or PHY 1025 or PHY 2053 and PHY 2053L or Departmental Approval Corequisite: PHY 2048 |
| TOTAL CREDITS | | 12 | | |
| Semester 6 | MAC 2313 (C) | Calculus and Analytical Geometry 3 | 4 | Prerequisite: MAC 2312 |
| | TOTAL CREDITS | | 4 | |
| PROGRAM TOTAL | | | 60 | |

AA Course Sequence Guide - Part-Time Enrollment
Engineering - Chemical Pathway
Associate in Arts Degree | Code: (10906) | 60 Credits
Effective Term: Fall 2025 (2257)

| SEMESTER | COURSE ID | COURSE TITLE | CREDITS | PRE/CO-REQUISITES |
|------------|-----------------------------|---|-----------|--|
| Semester 1 | ENC 1101 (W) | English Composition 1 | 3 | Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption). |
| | EGN 1008C | Introduction to Engineering | 3 | |
| | MAC 1105 (C) | College Algebra | 3 | Prerequisite: MAT 1033* ♦Students must seek advisement for proper mathematics course from discipline chairperson. |
| | TOTAL CREDITS | | 9 | |
| Semester 2 | MAC 1140 (C) | Pre-Calculus Algebra | 3 | Prerequisite: MAC 1105 |
| | CHM 1045 | General Chemistry and Qualitative Analysis | 3 | Prerequisites: MAC 1105; CHM1025 or a passing score on the CART exam Corequisites: CHM 1045L |
| | CHM 1045L | General Chemistry and Qualitative Analysis Lab | 2 | Prerequisites: MAC 1105; CHM1025 or a passing score on the CART exam Corequisites: CHM 1045 |
| | Computer Competency | Computer Skills Placement (CSP) ---or--- CGS 1060C | | Departmental Recommendation: Computer Skills Placement (CSP) |
| | SLS 1106 | First Year Experience Seminar | 1 | |
| | TOTAL CREDITS | | 9 | |
| Semester 3 | ENC 1102 (W) | English Composition 2 | 3 | Prerequisite: ENC 1101 |
| | Social Sciences | AMH 2010, AMH 2020, POS 2041 | 3 | |
| | MAC 1114 (C) | Trigonometry | 3 | Prerequisite: MAC 1105 or MAC 1106 |
| | TOTAL SUMMER CREDITS | | 9 | |
| Semester 4 | MAC 2311 (C) | Calculus and Analytical Geometry 1 | 5 | Prerequisites: MAC 1106 and MAC 1114, or MAC 1140 and MAC 1114, or MAC 1147 |
| | Humanities | ARH 1000, HUM 1020, LIT 2000 (W), MUL 1010, PHI 2010 (W), THE 2000 (W) | 3 | Prerequisite for LIT 2000: ENC 1101 |
| | TOTAL CREDITS | | 8 | |
| | | | | |
| Semester 5 | MAC 2312 (C) | Calculus and Analytical Geometry 2 | 4 | Prerequisite: MAC 2311 |
| | Oral Communication | ENC 2300 (W), SPC 1017 (W), SPC 2608 (W) | 3 | Prerequisite for ENC 2300: ENC 1101, ENC 1102 Prerequisite for SPC 2608: ENC 0025 |
| | PHY 1025 | Basic Physics | 3 | Prerequisite: MAC 1105 |
| | TOTAL CREDITS | | 10 | |
| Semester 6 | Humanities | ARC 2701, ARC 2702 (W), ARH 1000, ARH 2050, ARH 2051 (W), ARH 2740 (W), DAN 2100, DAN 2130 (W), HUM 1020, LIT 2000 (W), LIT 2120 (W), MUH 2111, | 3 | Note: Check with an MDC advisor for requisite information. |

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|------------------------|--|--|---|--|
| | | MUH 2112 (W), MUL 1010, MUL 2380 (W), PHI 2010 (W), PHI 2600 (W), THE 2000 (W) | | |
| <i>Social Sciences</i> | AMH 2010, AMH 2020, ANT 2000, DEP 2000, ECO 2013 (W), POS 2041, PSY 2012, SYG 2000, WOH 2012, WOH 2022 | 3 | Note: Check with an MDC advisor for requisite information. | |
| | TOTAL SUMMER CREDITS | | 6 | |
| Semester 7 | MAC 2313 (C) | Calculus and Analytical Geometry 3 | 4 | Prerequisite: MAC 2312 |
| | PHY 2048 | Physics with Calculus 1 | 4 | Prerequisites: High school physics or PHY 1025, PHY 2053 or departmental approval and MAC 2311 Corequisite: PHY 2048L |
| | PHY 2048L | Physics with Calculus 1 Lab | 1 | Prerequisite: MAC 2311 and High School Physics or PHY 1025 or PHY 2053 and PHY 2053L or Departmental Approval Corequisite: PHY 2048 |
| | TOTAL CREDITS | | 9 | |
| PROGRAM TOTAL | | | 60 | |

Please Note: Students are strongly encouraged to select required lower division electives that will enhance their general education coursework and that will support their intended baccalaureate degree program. Students should consult with an academic advisor in their major degree area.

| ADDITIONAL COMMON PREREQUISITES | | | |
|---------------------------------|---|---------|---|
| Course ID | Course Title | Credits | Pre/Corequisites |
| CHM 1046 | General Chemistry and Qualitative Analysis II | 3 | Prerequisites: CHM 1045 Corequisite: CHM 1046L |
| CHM 1046L | General Chemistry and Qualitative Analysis II | 2 | Prerequisite: CHM 1045,1045L Corequisite: CHM 1046. |
| MAP 2302 (C) | Introduction to Differential Equations | 3 | Prerequisite: MAC 2312 |
| PHY 2049 | Physics with Calculus 2 | 4 | Prerequisite: PHY 2048 and PHY 2048L Corequisites: PHY 2049L and MAC 2312. |
| PHY 2049L | Physics with Calculus 2 Lab | 1 | Prerequisite: PHY 2048 and PHY 2048L Corequisites: PHY 2049 and MAC 2312. |