

# Engineering Science Transfer - Chemical Engineering Concentration

Associate in Science

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#### START here COMPLETED SEMESTER 1 CREDITS MILESTONE ENG 101 — English Composition I П MAT 290 - Calculus 1 for Engineering and Science П CHE 151 — General Chemistry for Engineering and Science I PHY 171 - Physics for Engineering and Science I IDS 101 - Gen Ed Seminar: First-Year Experience and two IDS electives TOTAL CREDITS SEMESTER 2 **CREDITS** MILESTONE COMPLETED ENG 102 - English Composition II П MAT 291 — Calculus II for Engineering and Science CHE 152 — General Chemistry Engineering and Science II П

|  | 3 |               |         |           |           |
|--|---|---------------|---------|-----------|-----------|
| SEMESTER 3   |   |               | CREDITS | MILESTONE | COMPLETED |
| MAT 292 — Calculus III for Engineering and Science |   |               | 4       |           |           |
| CHE 251— Organic Chemistry I and Lab               |   |               | 4       |           |           |
| ECO 140 — Macroeconomics                           |   |               | 3       |           |           |
| EGR 217 — Material Balances                        |   |               | 3       |           |           |
| BIO 131 — General Biology I                        |   |               | 4       |           |           |
|  | : | TOTAL CREDITS | 10      |           |           |

EGR 101 — Introduction to Engineering

ETH 101 — Ethics and Society

| TOTAL | CREDITS | 18 |
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TOTAL CREDITS 18

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| SEMESTER 4   | CREDITS | MILESTONE  | COMPLETED |
| MAT 298 — Differential Equations   | 3       |            |           |
| Humanities Elective (choose from: ART 101, 105, 106; COM 103; PHL 101;<br>ENG 113, 119, 160, 161, 185) | 3       |            |           |
| CHE 252 — Organic Chemistry II and Lab   | 4       |            |           |
| EGR 209/ CHEN 3030 — Fluid Mechanics (taken at UML via NECCUM)   | 3       |            |           |
| EGR 214 — Thermodynamics   | 3       |            |           |
| TOTAL CREDI  | TS 16   |            |           |

### You've FINISHED!





## Helpful Hints

- Individual electives vary by Engineering concentration.
- Students will want to consider taking their first engineering elective during the second semester of their first year.
- In some cases, MCC students will take their Engineering electives at UML, and receive full credit toward their AS degree through the reverse articulation agreement that is part of this proposal. Please check the requirements of your individual program for a listing of recommended electives.
- Students who wish to transfer to four-year institutions other than UML upon completion of their AS degree should consult with Advising early in the program.

#### Career and Transfer Outlook

Career opportunities are open to students who transfer and complete a bachelor's degree. Engineers design complex systems, solve technical problems, and provide supervision and leadership. This program aligns with the Massachusetts DHE transfer guidelines for the A2B Engineering Pathway.

To learn more, call us at 1-800-818-3434 or visit www.middlesex.mass.edu