



## Engineering Science Transfer – Chemical Engineering Concentration

### Associate in Science

### START here

1

SEMESTER 1	CREDITS	MILESTONE	COMPLETED
ENG 101 – English Composition I	3		<input type="checkbox"/>
MAT 290 – Calculus 1 for Engineering and Science	4		<input type="checkbox"/>
CHE 151 – General Chemistry for Engineering and Science I	4	<input type="checkbox"/>	<input type="checkbox"/>
PHY 171 – Physics for Engineering and Science I	4		<input type="checkbox"/>
IDS 101 – Gen Ed Seminar: First-Year Experience and two IDS electives	3	<input type="checkbox"/>	<input type="checkbox"/>
<b>TOTAL CREDITS</b>	<b>18</b>		

2

SEMESTER 2	CREDITS	MILESTONE	COMPLETED
ENG 102 – English Composition II	3	<input type="checkbox"/>	<input type="checkbox"/>
MAT 291 – Calculus II for Engineering and Science	4		<input type="checkbox"/>
CHE 152 – General Chemistry Engineering and Science II	4	<input type="checkbox"/>	<input type="checkbox"/>
EGR 101 – Introduction to Engineering	4	<input type="checkbox"/>	<input type="checkbox"/>
ETH 101 – Ethics and Society	3	<input type="checkbox"/>	<input type="checkbox"/>
<b>TOTAL CREDITS</b>	<b>18</b>		

3

SEMESTER 3	CREDITS	MILESTONE	COMPLETED
MAT 292 – Calculus III for Engineering and Science	4		<input type="checkbox"/>
CHE 251 – Organic Chemistry I and Lab	4		<input type="checkbox"/>
ECO 140 – Macroeconomics	3		<input type="checkbox"/>
EGR 208/ CHEN 2010 – Material Balances (taken at UML via NECCUM)	3		<input type="checkbox"/>
BIO 131 – General Biology I	4	<input type="checkbox"/>	<input type="checkbox"/>
<b>TOTAL CREDITS</b>	<b>18</b>		

4

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

#### Milestone Courses

should be taken in the order shown. This will help you stay on track and graduate on time.

**Make Your Summer Matter.** Summer is a great time to take some elective courses and get ahead.

### 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.

**You've FINISHED!**

To learn more, call us at 1-800-818-3434 or visit [www.middlesex.mass.edu](http://www.middlesex.mass.edu)