

# ASSOCIATE OF SCIENCE IN ENGINEERING (ASE)

NMC offers an intensive Associate of Science in Engineering transfer degree that is intended to prepare students for transfer to a four-year engineering program. The NMC engineering curriculum parallels engineering programs offered during the first two years at other colleges and universities. Traditionally, these first two years emphasize the tools and theories that provide background for all engineering fields. Students are required to meet with an advisor for completion of this degree.

| Course  | Title                          | Credits   |
|---|--------------------------------|-----------|
| <b>Core General Education Requirements</b>  |                                | <b>48</b> |
| <b>Communications</b>   |                                |           |
| ENG 111   | English Composition            | 4         |
| ENG 112   | English Composition            | 4         |
| <b>Humanities</b>   |                                |           |
| Any Group 1 class from: art, history, humanities, literature, music, philosophy or second year foreign language   |                                | 3         |
| <b>Mathematics</b>  |                                |           |
| MTH 141   | Calculus I                     | 5         |
| MTH 142   | Calculus II                    | 5         |
| MTH 241   | Calculus III                   | 5         |
| MTH 251   | Differential Equations         | 4         |
| <b>Science</b>  |                                |           |
| CHM 150   | General Chemistry I            | 4         |
| CHM 150L  | General Chemistry I Lab        |           |
| CHM 150R  | General Chemistry I, Recitatin |           |
| PHY 221   | Problems & Princ.of Physics I  | 4         |
| PHY 221L  | Prob./Prin. of Physics I Lab   |           |
| PHY 221R  | Prob.& Princ. of Physics I Rec |           |
| PHY 222   | Prob. & Princ. of Physics II   | 4         |
| PHY 222L  | Prob./ Prin. of Physics II Lab |           |
| PHY 222R  | Prob. & Princ. of Physics II R |           |
| <b>Social Science</b>   |                                |           |
| One Group 1 class from: anthropology, economics, geography, political science, psychology or sociology  |                                | 3         |
| <b>Directed Electives</b>   |                                | <b>25</b> |
| Directed Electives will be determined by the type of engineering program the student is pursuing and the university to which they are transferring. See Program Advisor for course information. |                                |           |
| BIO 227   | Human Anatomy & Physiology I   | 4         |
| BIO 227L  | Human Anatomy & Phys I Lab     |           |
| BIO 228   | Human Anatomy & Physiology II  | 4         |
| BIO 228L  | Human Anatomy & Phys II Lab    |           |
| CHM 151   | General Chemistry II           | 4         |
| CHM 151L  | General Chemistry II Lab       |           |
| CHM 151R  | General Chemistry II Recitatin |           |
| CHM 250   | Organic Chemistry I            | 5         |
| CHM 250L  | Organic Chemistry I Lab        |           |
| CHM 251   | Organic Chemistry II           | 5         |
| CHM 251L  | Organic Chemistry II Lab       |           |
| CIT 110   | Programming Logic and Design   | 3         |

|                      |                             |           |
|----------------------|-----------------------------|-----------|
| EGR 101              | Introduction To Engineering | 1         |
| EGR 113              | Engineering Graphics I      | 3         |
| EGR 131              | Elementary Surveying        | 5         |
| EGR 131L             | Elementary Surveying Lab    |           |
| EGR 201              | Statics                     | 3         |
| EGR 202              | Mechanics of Materials      | 3         |
| EGR 203              | Dynamics                    | 4         |
| EGR 211              | Electrical Circuits I       | 3         |
| EGR 220              | Engineering Practice I      | 2         |
| EGR 221              | Material Science            | 3         |
| EGR 232              | Introductory Thermodynamics | 3         |
| ENV 111              | Physical Geology            | 4         |
| ENV 111L             | Physical Geology Lab        |           |
| <b>Total Credits</b> |                             | <b>73</b> |

## Other Requirements

- Complete the ASE degree with a 2.0 or higher cumulative grade point average.
- Complete a minimum 15 of the 60 credits through NMC classes.

## NOTES

- Courses with numbers below 100 level do not count toward graduation, but the grades do count toward your cumulative GPA. They may be prerequisites for other courses needed to complete degree or certificate requirements and may add to the total number of credits taken. Review course prerequisites carefully.
- For elective courses to count toward graduation, a course must be completed with a grade of 1.0 or higher.