# Engineering 2016
## Associate of Science Degree

This information is subject to change and does NOT constitute an agreement between NIC and the student. Current students should meet with their assigned advisor regularly to ensure the proper selection of courses.

### Number | Course Title | CR | grade | G/M/E
---|---|---|---|---
**GEM 1: Written Communication: 6 credits**
ENGL 101 | English Composition | 3 | G
ENGL 102 | English Composition | 3 | G

**GEM 2: Oral Communication: 3 credits**
COMM 101 | Intro to Speech Communication | 3 | G

**GEM 3: Mathematical Ways of Knowing: 4 credits**
MATH 170 | Analytic Geometry and Calculus I | 4 | G/M

**GEM 4: Scientific Ways of Knowing: 8-10 credits**
CHEM 111/111L | Principles of General College Chemistry I | 5 | G/M
(see reverse) | G

**GEM 5: Humanistic and Artistic Ways of Knowing: 6 credits**
(see reverse) | 3 | G
(see reverse) | 3 | G

**GEM 6: Social and Behavioral Ways of Knowing: 6 credits**
(see reverse) | 3 | G
(see reverse) | 3 | G

**GEM 7: Institutionally Designated: 4-6 credits**
INTR 250 | Integrative Inquiry | 3 | G
Wellness | (see reverse) | G

### Major Requirements:
ENGL 202 | Technical Writing | 3 | M
ENGR 123 | Intro to Engineering | 2 | M
ENGR 210 | Statics | 3 | M
MATH 175 | Analytic Geometry and Calculus II | 4 | M
MATH 275 | Analytic Geometry and Calculus III | 4 | M
MATH 370 | Intro to Ordinary Differential Equations | 3 | M
PHYS 211/211L | Engineering Physics I | 5 | M

### Recommended Courses:
PHIL 103 | Ethics | 3
ECON 201 | Principles of Economics (Macro) | 3
ECON 202 | Principles of Economics (Micro) | 3

**Recommended choosing courses from the Areas of Emphasis below according to transfer institution requirements**

<table>
<thead>
<tr>
<th>Civil Engineering</th>
<th>Chemical Engineering</th>
<th>Electrical Engineering</th>
<th>Mech. Engineering</th>
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| ENGR 105 | 2 | CHEM 112/112L | 5 | CS 150 | 4 | ENGR 105 | 2
| ENGR 214 | 4 | CHEM 277/278L | 4 | CS 240 | 4 | ENGR 220 | 3
| ENGR 220 | 3 | CHEM 287/288L | 4 | ENGR 220 | 3 | ENGR 220 | 3
| ENGR 223 | 3 | CS 150 | 4 | ENGR 240 | 4 | ENGR 240 | 4
| ENGR 295 | 3 | ENGR 240 | 4 | ENGR 241 | 4 | ENGR 295 | 3
| PHYS 212/212L | 5 | PHYS 212/212L | 5 | MATH 335 | 3 | MATH 335 | 3
| CHEM 112/112L | 5 | PHYS 212/212L | 5 | PHYS 212/212L | 5

**Total Credits (minimum)** 62

G - Gem Requirement  
M - Major Requirement  
E - Elective Requirement

Students planning to transfer to a four-year college/university should visit the NIC Transfer Center for more information.
### GEM 1: WRITTEN COMMUNICATION (6 credits)
- □ ENGL 101
- □ ENGL 102

### GEM 2: ORAL COMMUNICATION (3 credits)
- □ COMM 101

### GEM 3: MATHEMATICAL WAYS OF KNOWING (3-5 credits)
*Met by major requirements*

### GEM 4: SCIENTIFIC WAYS OF KNOWING (8 credits – 2 different disciplines)
*Met by major requirements*

### GEM 5: HUMANISTIC AND ARTISTIC WAYS OF KNOWING (6 credits – 2 different disciplines)
- □ AIST 285
- □ ART 100
- □ ART 101
- □ ART 102
- □ CINA 126
- □ COMM 220
- □ ENGL 175
- □ ENGL 257
- □ ENGL 258
- □ ENGL 267
- □ ENGL 268
- □ ENGL 271
- □ ENGL 277
- □ ENGL 278
- □ ENGL 285
- □ FLAN 207
- □ HUMS 101
- □ HUMS 126
- □ HUMS 200
- □ INTR 200
- □ MUSH 101
- □ MUSH 127
- □ MUSH 163
- □ PHIL 101
- □ PHIL 103
- □ PHIL 111
- □ PHIL 201
- □ PHIL 205
- □ PHIL 220
- □ THEA 101

*All foreign languages are one Humanistic and Artistic Ways of Knowing discipline.*
- □ ASL 101
- □ ASL 102
- □ FREN 101
- □ FREN 102
- □ GERM 101
- □ GERM 102
- □ ITAL 101
- □ ITAL 102
- □ SPAN 101
- □ SPAN 102

### GEM 6: SOCIAL AND BEHAVIORAL WAYS OF KNOWING (6 credits – 2 different disciplines)
- □ AIST 101
- □ ANTH 100
- □ ANTH 220
- □ CHD 134
- □ COMJ 140
- □ COMM 233
- □ ECON 201
- □ ECON 202
- □ HIST 101
- □ HIST 102
- □ HIST 103
- □ HIST 111
- □ HIST 112
- □ HIST 211
- □ HIST 212
- □ POLS 101
- □ POLS 237
- □ PSYC 101
- □ SOCI 101
- □ SOCI 102

### GEM 7: INSTITUTIONALLY DESIGNATED
- Complete Integrative course: (3 credits)
  - □ INTR 250
- Complete one Wellness course from the following: (1-3 credits)
  - □ MUSA 114
  - □ MUSA 130
  - □ MUSA 145
  - □ MUSP 103
  - □ MUSP 104
  - □ MUSP 106
  - □ MUSP 107
  - □ MUSP 110
  - □ MUSP 111
  - □ MUSP 113
  - □ PE 110E
  - □ PE 110F
  - □ PE 110J
  - □ PE 110PP
  - □ PE 110R
  - □ PE 222
  - □ PE 288
  - □ SOCI 220