

Name: \_\_\_\_\_

Exp. Grad.: Fall \_\_\_\_\_ / Spring \_\_\_\_\_

**Materials Science and Engineering  
Curriculum by Semester**  
(For students entering Fall 2017 – Spring 2018)

| Semester 1                     |   | Semester 2                                       |   | Semester 3        |   | Semester 4        |   |
|--------------------------------|---|--|---|-------------------|---|-------------------|---|
| Course (cr. hr.)               | X | Course (cr. hr.)                                 | X | Course (cr. hr.)  | X | Course (cr. hr.)  | X |
| CHEM 105 (4)                   |   | CHEM 106 (4)                                     |   | CEMS 214 (3)      |   | CEMS 215 (3)      |   |
| ENGL 101 (4)***<br>(If needed) |   | ENGR 104 (2)                                     |   | ENGR 110 (4)      |   | CEMS 216 (3)      |   |
| ENGR 101 (2)                   |   | ENGR 160(0)                                      |   | ENGR 360 (0)      |   | CEMS 235 (4)      |   |
| ENGR 102 (2)                   |   | MATH 152 (4)                                     |   | MATH 253 (4)      |   | ENGR 360 (0)      |   |
| ENGR 160 (0)                   |   | PHYS 125 (4)                                     |   | PHYS 126 (4)      |   | MATH 271 (3)      |   |
| MATH 151 (4)                   |   | ENGR 11x* (1)                                    |   | Hum/SS/Arts (4)   |   | Hum/SS/Arts (4)   |   |
| Hum/SS/Arts (4)                |   | ENGR 11x* (1)                                    |   |                   |   |                   |   |
|                                |   | *Select 2 ENGR 111-116<br>Engr Explorations Labs |   |                   |   |                   |   |
| <b>Total (16)</b>              |   | <b>Total (16)</b>                                |   | <b>Total (19)</b> |   | <b>Total (17)</b> |   |

\*\*\*Credits do not count towards graduation

| Semester 5        |   | Semester 6        |   | Semester 7               |   | Semester 8        |   |
|-------------------|---|-------------------|---|--------------------------|---|-------------------|---|
| Course (cr. hr.)  | X | Course (cr. hr.)  | X | Course (cr. hr.)         | X | Course (cr. hr.)  | X |
| CEMS 237 (4)      |   | CEMS 251 (3)      |   | CEMS 314 (3)<br>(or 316) |   | CEMS 446 (3)      |   |
| CEMS 322 (3)      |   | CEMS 334 (3)      |   | CEMS 336 (3)             |   | ENGR 360 (0)      |   |
| CEMS 347 (2)      |   | CEMS 344 (4)      |   | CEMS 342 (4)             |   | ENGR 480 (2)      |   |
| CEMS 349 (2)      |   | ENGR 220 (4)      |   | ENGR 360 (0)             |   | Hum/SS/Arts (4)   |   |
| ENGR 305 (3)      |   | ENGR 360 (0)      |   | ENGR 480 (2)             |   | Tech elective (3) |   |
| ENGR 306 (2)      |   | ENGR 395 (2)      |   | Tech Elective (3)        |   | Tech elective (3) |   |
| ENGR 360 (0)      |   | Tech elective (3) |   |                          |   |                   |   |
|                   |   |                   |   |                          |   |                   |   |
| <b>Total (16)</b> |   | <b>Total (19)</b> |   | <b>Total (15)</b>        |   | <b>Total (15)</b> |   |

**Additional Requirements:**

1. AU Global Perspective
2. AU Physical Education Requirement
3. SOE Minimum Credit Requirement: At least 128 credits, excluding physical education
4. SOE GPA requirement and 'D' policy
5. SOE Written Communication Requirement: Typically ENGL 101 and ENGR 110. Some students may be exempt from ENGL 101, which does not count towards the minimum credits required for graduation.
6. SOE Humanities/Social Science/Arts Requirement

[Current SOE requirements](#)[Degree Evaluation](#)**Definitions of Electives:***BIOL Electives:* BIOL 302, BIOL 307, BIOL 308, BIOL 365, BIOL 402, BIOL 420, BIOL 422*Engineering Electives:* Most courses with ENGR, CEMS, MECH and RNEW designation,  
≥ 300 level*Technical Electives:* (1) Most 300- and 400-level courses designated CEMS, CHEM, ENGR, MATH, MECH, PHYS, or RNEW. Exceptions include MATH 331 and some special topic courses. (2) One of FIN 348 **OR** MGMT 328 for all majors except BME; (3) BIOL Electives listed above for BME only, (4) CEMS 203 for MSE majors only

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**Materials Science and Engineering**  
**Progress toward Degree (1/2)**  
*(For students entering Fall 2017 – Spring 2018)*

**Directions:** Before submitting an **Application for Graduation** to the Registrar's Office, students should complete this **Progress toward Degree Form** in consultation with their advisor.

| Written Communication Requirement | Req. Cr. hrs. | Substitution/Waiver/Transfer & Institution, if not AU | Cr. Hrs. or IP* |
|-----------------------------------|---------------|---|-----------------|
| ENGL 101 or equivalent            | 0             |   |                 |
| ENGR 110 – Technical Comm.        | 4             |   |                 |

| Humanities / Social Science / Arts Requirement | Substitution/Waiver/Transfer & Institution, if not AU | Designation A,B,C,D,E, II | Cr. Hrs. or IP* |
|--|---|---------------------------|-----------------|
|  |   |                           |                 |
|  |   |                           |                 |
|  |   |                           |                 |
|  |   |                           |                 |
|  |   |                           |                 |
|  |   |                           |                 |
|  |   |                           |                 |
| <b>Hum/SS/ Arts Total ( ≥ 16 cr. hrs.)</b>     |   |                           |                 |

| Humanities/Social Science/Arts Additional Requirement           | Check if met (X or NA) |
|---|------------------------|
| At least 16 credits (excluding ENGL 101 and ENGR 110)           |                        |
| At least 3 Designated Areas                                     |                        |
| No more than 4 credit hours of Arts counting towards 16 credits |                        |

| Mathematics Requirement  | Req. Cr. hrs. | Substitution/Waiver/Transfer & Institution, if not AU | Cr. Hrs. or IP* |
|--------------------------|---------------|---|-----------------|
| MATH 151                 | 4             |   |                 |
| MATH 152                 | 4             |   |                 |
| MATH 253                 | 4             |   |                 |
| MATH 271                 | 3             |   |                 |
| ENGR 305                 | 3             |   |                 |
| <b>Mathematics Total</b> | <b>18</b>     |   |                 |

| Chemistry Requirement  | Req. Cr. hrs. | Substitution/Waiver/Transfer & Institution, if not AU | Cr. Hrs. or IP* |
|------------------------|---------------|---|-----------------|
| CHEM 105               | 4             |   |                 |
| CHEM 106               | 4             |   |                 |
| <b>Chemistry Total</b> | <b>8</b>      |   |                 |

| Physics Requirement  | Req. Cr. hrs. | Substitution/Waiver/Transfer & Institution, if not AU | Cr. Hrs. or IP* |
|----------------------|---------------|---|-----------------|
| PHYS 125             | 4             |   |                 |
| PHYS 126             | 4             |   |                 |
| <b>Physics Total</b> | <b>8</b>      |   |                 |

\*Enter number of credit hours completed or IP=In progress

Name: \_\_\_\_\_

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**Materials Science and Engineering**  
**Progress toward Degree (2/2)**  
*(For students entering Fall 2017 – Spring 2018)*

| Basic Engineering Requirement  | Req. Cr. hrs. | Substitution/Waiver/Transfer & Institution, if not AU | Cr. Hrs. or IP* |
|--------------------------------|---------------|---|-----------------|
| ENGR 101                       | 2             |   |                 |
| ENGR 102                       | 2             |   |                 |
| ENGR 104                       | 2             |   |                 |
| ENGR 111-116 (select 2)        | 2             |   |                 |
| <b>Basic Engineering Total</b> | <b>8</b>      |   |                 |

| Materials Science & Engineering Requirement      | Req. Cr. hrs. | Substitution/Waiver/Transfer & Institution, if not AU | Cr. Hrs. or IP* |
|--|---------------|---|-----------------|
| CEMS 214   | 3             |   |                 |
| CEMS 215   | 3             |   |                 |
| CEMS 216   | 3             |   |                 |
| CEMS 235   | 4             |   |                 |
| CEMS 237   | 4             |   |                 |
| CEMS 251   | 3             |   |                 |
| CEMS 314 (or CEMS 316)                           | 3             |   |                 |
| CEMS 322   | 3             |   |                 |
| CEMS 334   | 3             |   |                 |
| CEMS 336   | 3             |   |                 |
| CEMS 342   | 4             |   |                 |
| CEMS 344   | 4             |   |                 |
| CEMS 347   | 2             |   |                 |
| CEMS 349   | 2             |   |                 |
| CEMS 446   | 3             |   |                 |
| ENGR 220   | 4             |   |                 |
| ENGR 306   | 2             |   |                 |
| ENGR 395   | 2             |   |                 |
| ENGR 480   | 4             |   |                 |
| Technical Elective I                             | 3             |   |                 |
| Technical Elective II                            | 3             |   |                 |
| Technical Elective III                           | 3             |   |                 |
| Technical Elective IV                            | 3             |   |                 |
|  |               |   |                 |
| <b>Materials Science &amp; Engineering Total</b> | <b>71</b>     |   |                 |

| Additional Requirements           | Substitution/ waivers, if any            | Check if Met (X) |
|-----------------------------------|--|------------------|
| Engineering seminar               |  |                  |
| Global Perspective                |  |                  |
| ENGR GPA and "D" Policy           | N/A                                      |                  |
| Physical Education / Wellness I   |  |                  |
| Physical Education / Wellness II  |  |                  |
| Total Eligible Credits $\geq$ 133 | (excluding ENGL 101 & Phys. Ed. Credits) |                  |

\*Enter number of credit hours completed or IP=In progress