Materials Science and Engineering Catalog 2018
NANOMATERIALS CONCENTRATION

Fall
16 hours
Chem 120 or 128 (4) FA, SP, SU
Prereq: Math 119/120 recommended; background Math 130
Math 141 or 147 (4) FA, SP, SU
Prereq: Math 130 or Math ACT 28 or Math SAT 630
EF 151 or 157 (4) FA, SP
Coreq: Math 141 or 147 and EF 105
EF 195 (1) FA, SP
Coreq: EF 151 or 157
English 101/118 or 198 or 131 (3) FA, SP, SU
101 Regular; 118 Honors; 198 Chancellor Honors Only; 131 English as Second Language

Spring
16 hours
Chem 139 or 138 (4) FA, SP, SU
Prereq: Chem 120 or 128
Math 142 or 148 (4) FA, SP, SU
Prereq: Math 141 or 147
EF 152 or 158 (4) FA, SP, SU
Prereq: EF 151 or 157
Coreq: Math 142 or 148
MSE 101 (1) SP
English 102 or 290 or 298 or 132 (3) FA, SP, SU
102 Prereq 101 or 118, 290 Prereq AP 101 credit
298 Prereq Chancellor Honors only & 198. 132 Prereq 131 ESL

Fall
17 hours
MSE 201 or 207 (3) FA, SP, SU
Prereq: Chemistry 130 or 132
MSE 210 (1) FA
Coreq: MSE 201
Math 241 or 247 (4) FA, SP, SU
Prereq: Math 142 or 148
Coreq: Math 142 or 148
Physics 231 (3) FA, SP, SU
Prereq: MSE 201
Econ 201 or 207 (4) FA, SP, SU
Prereq: EF 105 or CS 102
Coreq: EF 152/158

Spring
16 hours
MSE 290 (1) SP
Math 200 (2) FA, SP
Cannot receive credit if previous C or better in math 251 or 257
Math 231 or 237 (3) FA, SP, SU
Prereq: Math 142 or 148
MSE 232 (4) FA, SP, SU
Prereq: Physics 231
Coreq: Math 241 or 247
MSE 250 (3) SP
Prereq: Math 142 or 148, EF 230 and Coreq: Math 231 and MSE 201
MSE 260 (3) SP
Prereq: EF 152/158, Chem 130/138, and Math 241/247, MSE 201

Fall
16 hours
MSE 300 (1) FA
Prereq: MSE 201 and 210
MSE 301 (3) FA
Prereq: Math 142/148, 231, EF 230
MSE 320 (3) FA
Prereq: MSE 201 and 260
MSE 340 or 347 (3) FA
Prereq: MSE 201
MSE 360 or 367 (3) FA
Prereq: MSE 201
Gen. Ed. (3) FA, SP, SU
Arts and Humanities

Spring
17 hours
MSE 304 (WC) (2) SP
Prereq: MSE 300, 320, 340, 360 and ENGL 102, 132, 200, or 298
MSE 390 or 397 (3) SP
Prereq: MSE 201
MSE 370 (3) SP
Prereq: MSE 340 or 360 and coreq: MSE 320
MSE 302 (3) SP
Prereq: MSE 201
MSE 350 or 357 (3) SP
Prereq: MSE 201
Technical Elective* (3) FA, SP, SU
Petition required in advance

Fall
15 hours
MSE 410 or 408 (3) FA, SP
410 Prereq: Physics 232 & Junior
408 Prereq: MSE 201
MSE 405 (WC) (3) FA
Prereq: EF 230/232, ENGL 102, 132, 200 or 298
MSE 480 (3) FA
Prereq: MSE 201; level junior
Gen. Ed. (3) FA, SP, SU
Culture and Civilizations
Gen. Ed. (3) FA, SP, SU
Social Science

Spring
16 hours
MSE 408 or 410 (3) FA, SP
408 Prereq: MSE 201
410 Prereq: Physics 232 & Junior
MSE 489 (OC) (3) SP
Technical Elective* (3) FA, SP, SU
Petition required in advance
MSE 489 (OC) (3) SP
Prereq: MSE 304, 340/347, 360/367, 370, 390/397, and 480
Gen. Ed. (3) FA, SP, SU
Culture and Civilizations
Gen. Ed. (3) FA, SP, SU
Arts and Humanities

*Technical electives: MSE 421, 469, 474, Phys 411. Credit for other courses that address processing, structure, properties or behavior of nanomaterials may be substituted by permission of academic advisor and department head.

Progression
Progression of students to departmental upper-division courses is competitive. Factors considered include overall grade point average, performance in selected lower division courses and evidence of satisfactory and orderly progress through the prescribed curriculum.

Upper Division Status
A lower division student formally applies for upper division status after completing 50 hours of lower division engineering curriculum course work with an overall GPA of at least 2.4. This must include MSE 201.

Provisional Status
Students who have completed 50 hours of lower-division engineering curriculum course work with an overall GPA between 2.0 and 2.4 may apply for provisional status.

The granting of provisional upper-division status is based on the availability of space in the departmental programs after upper-division status students have been accommodated. Provisional students are required to demonstrate their ability to perform satisfactorily in upper-division courses by attaining a minimum GPA of 2.0 in at least 8 hours of 300-level required courses specified by the department. Further progression to upper-division courses is dependent upon this minimum level of performance.

MSE Graduation Requirements
Graduation in materials science and engineering requires a minimum grade point average of 2.0 for all departmental courses.

Students also have opportunities for an Honors Concentration and/or a five-year BS/MS program. See the Undergraduate Catalog for details and requirements.

UTRACK Milestones:

<table>
<thead>
<tr>
<th>Term</th>
<th>Courses</th>
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<tbody>
<tr>
<td>1</td>
<td>Math 130 or higher or one AH or one CC</td>
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<tr>
<td>2</td>
<td>Math 130 or higher</td>
</tr>
<tr>
<td>3</td>
<td>EF 151/157 or Physics 135/137</td>
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<tr>
<td>4</td>
<td>EF 152/158 or Physics 136/138</td>
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<tr>
<td>5</td>
<td>ME 202 or CS 102 or MSE 201 or CBE 201</td>
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<tr>
<td>6 through 8</td>
<td>No Milestones</td>
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