## Nuclear Engineering Catalog 2017

### Radiological Concentration

#### Fall
- **16 hours**
  - Math 141 or 147 (4) FA, SP, SU
    - Prereq: Math 130 or Math ACT 28 or Math SAT 630
  - English 101 or 118 (3) FA, SP, SU
    - Coreq: Math 141 or 147 and EF 105
  - Chem 120 or 128 (4) FA, SP, SU
    - Prereq: Chem 120 or 126
  - EF 151 or 157 (4) FA, SP
    - Coreq: EF 151 or 157
  - EF 105 (1) FA, SP
  - Total: 16 hours

  **Prereq** - Math 130 or Math ACT 28
  **Coreq** - Math 141 or 147

#### Spring
- **15 hours**
  - Math 142 or 148 (4) FA, SP, SU
    - Prereq: English 101 or 118
  - Chem 130 or 138 (4) FA, SP, SU
    - Prereq: Chem 120 or 126
  - EF 152 or 158 (4) FA, SP
    - Coreq: EF 152 or 158
  - EF 105 (1) FA, SP
  - Total: 15 hours

  **Prereq** - Math 141 or 147
  **Prereq** - English 101 or 118
  **Coreq** - EF 151 or 157

### Fall
- **16 hours**
  - Math 231 or 237 (3) FA, SP, SU
    - Prereq: Math 142 or 148
  - Math 130 (3) FA, SP, SU
  - EF 151 or 157 (4) FA, SP
    - Coreq: EF 151 or 157
  - Physics 231 (3) FA, SP, SU
    - Coreq: Math 142 or 148
  - ECON 201 or 207 (4) FA, SP, SU
  - Total: 16 hours

  **Prereq** - Math 142 or 148
  **Coreq** - EF 151 or 157

### Spring
- **15 hours**
  - Math 241 or 247 (4) FA, SP, SU
    - Prereq: Math 142 or 148
  - Physics 232 (4) FA, SP, SU
    - Coreq: EF 152 or 158
  - NE 200 (2) FA
    - Co-req: EF 152 or 158 or Phy136/138
  - EF 230 (2) FA, SP
    - Co-req: EF 152/158 or Phy136/138
  - Total: 15 hours

  **Prereq** - Math 142 or 148

### Fall
- **16 hours**
  - NE 342 or 347 (3) FA
  - ECE 301 (3) FA, SP
  - NE 362 or 367 (3) FA
  - Physics 341 (3) FA
    - Coreq: Math 231
  - Gen Ed (3) FA, SP, SU
  - Total: 16 hours

  **Prereq** - Math 241 or 247
  **Prereq** - Math 231

### Spring
- **17 hours**
  - NE 401 (4) SP
    - Coreq: ECE 301 & Math 241/247
  - NE 406 or 467 (3) SP
  - NE 351 or 357 (3) SP
    - Coreq: NE 200
  - NE 470 (3) FA, SP
    - Coreq: NE 302 or 367
  - Gen Ed (3) FA, SP, SU
  - Total: 17 hours

  **Coreq** - ECE 301 & Math 241/247

### Fall
- **17 hours**
  - NE 402 or 427 (WC) (4) FA
    - Prereq: NE 401 and 470
  - NE 490 (3) FA
    - Prereq: NE 401 and 470
  - NE 321 (3) FA, SP, SU
    - Prereq: Math 242 with C or better and Math 142 or 148
  - Technical Elective *(3) FA, SP, SU
    - Petition required in advance
  - Gen Ed (3) FA, SP, SU
    - Cultures and Civilizations
  - Total: 17 hours

  **Prereq** - NE 233 or 433 & Physics 232
  **Prereq** - NE 471

### Spring
- **13 hours**
  - NE 400 (CC) (1) SP
    - Minimum student level — senior
  - NE 406 or 467 (3) SP
    - Prereq: NE 233 or 433 & Physics 232
  - NE 472 (3) SP
    - Prereq: NE 471
  - Technical Elective *(3) FA, SP, SU
    - Petition required in advance
  - Gen Ed (3) FA, SP, SU
    - Arts & Humanities
  - Total: 13 hours

  **Petition required in advance**

### Technical Electives
- Selected from upper division mathematics, chemistry, physics and engineering courses and must be pre-approved by the department. Courses in Nuclear Engineering other than 500, 502 or 508 may also be used as technical electives. Pre-med, pre-vet, and pre-dentistry students should take Chem 260, Chem 360 and 369.

### Full Status Progression

A lower-division student may apply for progression to upper division after completing CHEM 120* or CHEM 128*, CHEM 130* or CHEM 138*, MATH 141* or MATH 147*, MATH 142* or MATH 148*, MATH 231, EF 151* or EF 157*, EF 152* or EF 158*, and PHYS 231*, with a grade of C or better in each, and an overall GPA of at least 2.5.

### Provisional Status Progression

Students who have completed CHEM 120* or CHEM 128*, CHEM 130* or CHEM 138*, MATH 141* or MATH 147*, MATH 142* or MATH 148*, MATH 231, EF 151* or EF 157*, EF 152* or EF 158*, and PHYS 231* with a grade of C or better and have an overall GPA between 2.0 and 2.5 may apply for provisional status. The granting of provisional status is based on the availability of space in departmental programs after full status students have been accommodated. Provisional status students are required to demonstrate their ability to perform satisfactorily in upper-division by attaining a minimum GPA of 2.5 in the first 9 hours of 300-level required nuclear engineering courses. Award of upper-division full status is dependent upon this performance. Students who have not progressed to upper-division will be dropped from 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.

### Nuclear Graduation Requirements

Students are required to maintain a cumulative grade point average of at least 2.0 in all nuclear engineering courses taken at the University of Tennessee, Knoxville used to satisfy the graduation requirement. No more than four (4) credit hours of required nuclear engineering courses in which a C- or lower is the highest grade earned may be counted toward graduation. This is in addition to the university's graduation requirements.

Students are strongly recommended to meet with their faculty advisor every semester.

### UTRACK Milestones:

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