### DEGREE REQUIREMENTS CHECKLIST

**THIS OPTION IS DESIGNED TO PROVIDE THE NECESSARY FOUNDATION FOR THE STUDENT WHO PLANS A CAREER OR FURTHER STUDY IN NUCLEAR ENGINEERING, RADIATION ENGINEERING, OR HEALTH PHYSICS.**

This checklist below provides a summary of the requirements for the degree and major indicated above. For complete information, you should consult the Undergraduate Catalog 2006-2008 or 2008-2010. If you have any questions, please speak with an academic advisor at RLM 4.101.

### PRESCRIBED WORK: THESE COURSES MUST BE TAKEN ON A LETTER-GRADE BASIS.

1. **English:**
   - [ ] RHE 306
   - [ ] E 316K
   - Substantial Writing Component: [ ] One upper-division course*  
     [ ] One additional course
   
   *This requirement can be fulfilled by completion of PHY 453.
   
   These two courses may satisfy other degree requirements. They can be any number of semester hours. Consult the Course Schedule for a complete listing of writing component courses for a particular semester.

2. **Foreign Language:**
   - Choose from one the following options:
     
     Second semester proficiency in a single foreign language at the college level:
     
     [ ] 506 and [ ] 507 (or equivalent) or
     [ ] 506 and Foreign culture course from the same culture area, or
     [ ] two foreign culture courses from approved list

3. **Government:**
   - 6 Semester hours of American Government
     [ ] GOV 310L
     [ ] GOV 312L

4. **U.S. History:**
   - 6 semester hours of American History (3 hours of Texas History may be used toward one of the U.S. History requirements)
     [ ] ________

5. **3 semester hours from one of the following areas:**
   - [ ] Anthropology
   - [ ] Economics
   - [ ] Geography
   - [ ] Linguistics
   - [ ] Psychology
   - [ ] Sociology

6. **3 semester hours chosen from the following areas:**
   - [ ] Architecture
   - [ ] Classics Department
   - [ ] College of Fine Arts
   - [ ] Philosophy (not logic)

### PRESCRIBED WORK FOR OPTION III: ALL MAJOR REQUIREMENTS MUST BE TAKEN ON A LETTER-GRADE BASIS. A GRADE OF AT LEAST C- AND A GRADE POINT AVERAGE OF 2.0 IS REQUIRED IN THE MATHEMATICS AND SCIENCE COURSES LISTED BELOW.

- [ ] CH 301
- [ ] CH 302
- [ ] At least 6 semester hours in Biology, Geology, or Astronomy (AST 307 ok)

  **Note:** A course may not be used to fulfill this requirement if it cannot be counted toward major requirements in the department that offers it.

- [ ] PHY 301, PHY 101L
- [ ] PHY 316, PHY 116L
- [ ] PHY 315, PHY 115L
- [ ] PHY 319

Only courses at the level of calculus or above may be counted toward the total number of hours required for the degree.

- [ ] M 408C
- [ ] M 408D
- [ ] M 427K
- [ ] M 427L

Nine additional semester hours of upper division coursework in Mathematics. The following courses are recommended:

- [ ] M 340L
- [ ] M 361
- [ ] M 362K

### UPPER-DIVISION PHYSICS:

- 21 semester hours of upper-division physics courses consisting of:
  - [ ] PHY 336K Classical Dynamics I
  - [ ] PHY 352K Classical Electrodynamics
  - [ ] PHY 353L Modern Physics Laboratory-W
  - [ ] PHY 362L Quantum Mechanics III: Nuclei and Particles
  - [ ] PHY 369 Thermodynamics and Statistical Mechanics
  - [ ] PHY 373 Quantum Mechanics I: Foundations
  - [ ] 3 additional upper-division semester hours in Physics
### ADDITIONAL OPTION REQUIREMENTS:
- 16 semester hours of upper-division coursework in mechanical engineering consisting of:
  - M E 136N  Concepts in Nuclear/Radiation Engineering
  - M E 361F  Radiation and Radiation Protection Laboratory
  - M E 337C  Introduction to Nuclear Power Systems
  - M E 337F  Nuclear Environmental Protection
  - M E 337G  Nuclear Safety and Security
  - M E 361E  Reactor Operations

### SAMPLE COURSE PLAN

#### FRESHMAN YEAR

<table>
<thead>
<tr>
<th>Semester 1</th>
<th>Semester 2</th>
<th>Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td>M 408C</td>
<td>M 408D</td>
<td>Social science requirement (HIS/GOV)</td>
</tr>
<tr>
<td>PHY 110C or 1 hr elv.</td>
<td>PHY 301/PHY 101L</td>
<td>1 PHY 353L is normally offered as a substantial writing component. Consult with a faculty advisor regarding the sequencing of upper division physics and mechanical courses.</td>
</tr>
<tr>
<td>CH 301</td>
<td>CH 302</td>
<td>Foreign culture requirement (3 hrs)</td>
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<tr>
<td>RHE 306</td>
<td>General Culture (3hrs)</td>
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<tr>
<td>Social science requirement (3 hrs)</td>
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#### SOPHOMORE YEAR

<table>
<thead>
<tr>
<th>Semester 1</th>
<th>Semester 2</th>
<th>Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td>M 427K</td>
<td>M 427L</td>
<td></td>
</tr>
<tr>
<td>M 340L</td>
<td>PHY 315/PHY 115L</td>
<td></td>
</tr>
<tr>
<td>PHY 316/PHY 116L</td>
<td>3 hrs major level AST, BIO or GEO</td>
<td></td>
</tr>
<tr>
<td>E 316K</td>
<td>M E 136N</td>
<td></td>
</tr>
<tr>
<td>Social science requirement (HIS/GOV)</td>
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#### JUNIOR YEAR

<table>
<thead>
<tr>
<th>Semester 1</th>
<th>Semester 2</th>
<th>Summer</th>
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</thead>
<tbody>
<tr>
<td>PHY 319</td>
<td>PHY 352K</td>
<td>M 361F</td>
</tr>
<tr>
<td>PHY 336K</td>
<td>PHY 373</td>
<td></td>
</tr>
<tr>
<td>PHY 353L1</td>
<td>M 361</td>
<td></td>
</tr>
<tr>
<td>M 362K</td>
<td>3 hrs major level AST, BIO, or GEO</td>
<td></td>
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<tr>
<td>M E 337C</td>
<td>M E 361E</td>
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</table>

#### SENIOR YEAR

<table>
<thead>
<tr>
<th>Semester 1</th>
<th>Semester 2</th>
<th>Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHY 369</td>
<td>PHY 362L</td>
<td></td>
</tr>
<tr>
<td>PHY upper division (3hrs)</td>
<td>M E 337F</td>
<td></td>
</tr>
<tr>
<td>M E 337D</td>
<td>Social science requirement (HIS/GOV)</td>
<td></td>
</tr>
<tr>
<td>M E 337G</td>
<td>Foreign culture requirement (3 hrs)</td>
<td></td>
</tr>
<tr>
<td>Elective (3 hrs)</td>
<td>Social science requirement (HIS/GOV)</td>
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#### ELECTIVES
- Electives are necessary to complete the 126-semester-hour requirement for the B. S. in Physics.
- Once 30 hours of college credit is earned, up to 16 semester hours of electives may be taken pass/fail.
- Only two courses per semester may be taken pass/fail.

#### GENERAL DEGREE REQUIREMENTS:
- You must satisfy all of the following conditions in order to graduate.
  - Minimum cumulative UT GPA of 2.0
  - 60 semester hours must be completed in residence (in the classroom at UT).
  - 24 of the last 30 semester hours counted toward the degree must be in residence.
  - 18 upper-division semester hours must be completed in residence.
  - 12 semester hours of upper-division coursework in the major must be completed in residence.
  - 36 semester hours of the coursework must be upper-division.

The following courses will not count toward this degree: M301, KIN 119 or PED one-hour activity courses. No more than 12 semester hours of Bible coursework may be counted toward the degree. See catalog for restrictions about using ROTC coursework.

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http://www.utexas.edu/student/registrar/ida