MAJORING IN PHYSICS – REQUIREMENTS

A Total of 35 credits is required and must include these four groups:

1. INTRODUCTORY REQUIREMENTS (*suggested curriculum)
   - **First Course:** Physics 247* (recommended) or 207 or 201 or (EMA 201 and either EMA 202 or ME 240)
   - **Second Course:** Physics 248* (recommended) or 208 or 202
   - **Third Course:** Physics 249* (recommended) or 205 or 235 or 241 or 244

2. CORE REQUIREMENTS
   - **Mechanics:** Physics 311
   - **Electromagnetic Fields:** Physics 322 or (ECE 220, 320 and 420)
   - **Thermal Physics:** Physics 415 or (CHEM 561 and 562) or ME 361
   - **Quantum Physics:** Physics 448 and 449 (recommended) or Physics 531

3. LABORATORY REQUIREMENTS
   - All Physics majors must take 6 credits of intermediate and/or advanced lab.
   - **Full registered credit per course:** Physics 307, 407
   - **Two credits applies for each of these courses:** Physics 321, 325, 623, 625, NE 427, 428
   - **One credit applies for each of these courses:** ECE 305, 313

4. ADVANCED PHYSICS ELECTIVES
   - The remaining credits to total 35 must be from advanced-level Physics courses (see “Level” designation in the course description), or Physics 301. The Physics Department suggests that your program include the seminar on Physics Today (Physics 301).

MATHEMATICS PREREQUISITES

- **Math 221/222:** Standard Introductory calculus sequence. Math 221 is a prerequisite to Physics 247, 207 and 201.
- **Math 234:** Calculus of Several Variables, typically taken to complete the sequence Math 221/222/234. Can be taken simultaneously with Math 319.
- **Math 319:** Techniques in Ordinary Differential Equations. You are strongly advised to take this course and Math 340 or Math 320 before Physics 311 (Mechanics).