PURDUE UNIVERSITY
Department of Physics
B.S. with Applied Physics in Material Science Engineering

Semester	Physics	Math	Lab Sci	Electives	Credits
1	**Phys 172 (H) (4 cr.)** **Mechanics** Phys 217 ®(1 cr.)	Ma 165 (4 cr.) Calculus I	Chm 115 (4 cr.)	Foreign Language (3 cr.)	15-16
2	**Phys 272 (H) (4 cr.)** **E&M**	Ma 166 (4 cr.) Calculus II	Chm 116 (4 cr.)	Foreign Language (3 cr.) Engl 106 or 108 (3-4 cr.)	18-19
3	**#Phys 290G (3 cr.)** **(Gen.and Spl. Relativity)** **#Phys 290F (3 cr.)** **(Mathematical Physics)**	Ma 261 (4 cr.) Calculus III	**MSE 230 (3 cr.)** **MSE 235 (2 cr.)**		12 - 15
4	**Phys 342 (3 cr.)** **(Modern Physics)** Phys 290A ®(1 cr.)	Ma 262/266/366 Diff. Eqns.(3-4 cr)	**MSE 240 (3 cr.)**	General Ed. (3 cr.) Adv. Engl Comp. (3 cr.)	15 - 17
5	**Phys 310 (4 cr.)** **Mechanics** **Phys 322-450 (5 cr. total)** **(Optics and Lab)**	Math Elective (3 cr.)	**MSE 335 (3 cr.)** **MSE 340 (3 cr.)**		18
6	**Phys 330 (3 cr.)** **(Electromagnetism)**	Math Elective (3 cr.)	**MSE 367 (3 cr.)**	General Ed. (3 cr.) General Ed. (3 cr.)	15
7	**Phys 515 (3 cr.)** **(Therm & Stat. Mech)** **Phys 342L (1 cr.)** **(Modern Lab)**	***Applied Elective** (3-4 cr.)	**MSE 370 (3 cr.)**	General Ed. (3 cr.)	13 - 14
8	**Phys 360 (3 cr.)** **(Quantum)**	***Applied Elective** (3-4 cr.)	***Applied Elective** (3-4 cr.)	General Ed. (3 cr.) General Ed. (3 cr.)	15 - 17

1.The Applied Physics Program differs from the regular program in that only the 2nd semester of a foreign language must be passed; slightly fewer physics credits are required; at least 30 hours of APPLIED electives are selected rather than free electives.

2. A grade point average of 2.0 in all physics and Applied Electives is required.

3. Residency Requirements: At least 32 hrs. of 300 level or above coursework required.

4. General Ed. To be chosen from five areas; 1) literature, philosophy, aesthetics; 2) history,political science; 3) anthropology, economics, psychology, sociology; 4) communications; 5) interdisciplinary studies.

5. *Applied Elective = 1 - 5 credit hours of a Science, Technology or Engineering Class, including upper level physics courses

 # Phys 290G or Phys 290F (3 cr.) (Introduction to Mathematical Methods in Physics) may be taken.