

COURSE NUMBER: Vp260	COURSE TITLE: Honor Physics II
CREDIT: 4	PREREQUISITES: Vp160
TEXTBOOKS/REQUIRED MATERIAL: Young and <i>Freedman - University Physics</i> with Modern Physics	INSTRUCTOR: Wenjie Wan DATE OF PREPARATION: Oct 30, 2012 DATE OF UC APPROVAL: Oct. 30, 2013
INSTRUCTOR(S): Wenjie Wan	SCIENCE/DESIGN: n/a
CATALOG DESCRIPTION: This course gives a rigorous introduction to the theory of electromagnetic phenomena. Topics include electric and magnetic fields and potentials, DC and AC circuits, inductance and Maxwell's equations.	COURSE TOPICS: a. Electromagnetism : electric charge & field, Gauss's Law, electric potentials, dielectric, current, magnetic field and forces, magnetic induction, EM waves b. Optics: wave and particle nature of light, geometric optics, interference, diffraction
COURSE STRUCTURE/SCHEDULE: Lecture: twice per week, 90 minutes each;	
COURSE OBJECTIVES [Course Outcomes in brackets]	<ol style="list-style-type: none"> To provide the fundamental physics and mathematic knowledge to understand modern physical phenomena. [1, 2, 4] To provide the necessary principles for engineer problems [3]
COURSE OUTCOMES [Program Outcomes in brackets]	<p>After completing Vp260, students should be able to:</p> <ol style="list-style-type: none"> Understand basic electromagnetic and optics phenomena. Give explanations for various daily physical processes. Be able to use the knowledge design or create new conceptual devices for practical applications. Be capable of solving advanced physical problems through mathematical procedures.
ASSESSMENT TOOLS [Course Outcomes in brackets]	<p>Homework [1-4] Midterm Exam [1-4] Final Exam [1-4]</p>