

**Orange County Community College  
Science & Engineering Department**

**Course Name:** Physics for Science & Engineering III- 35203

**Instructor:** Richard Feinberg

**Text:** Physics Part 2, Author ; Halliday Resnick

**(3lect, 3lab.,**

**Course Description:** Treatment of electro- and magneto-statics, Gauss' Law, Maxwell's Equations. Resistance: inductance: capacitance. Transient and analysis of RC, RL and RLC circuits. Resonance, electromechanical anal.

**Prerequisite:** 35-104 – Physics for Science and Engineering II

**Corequisite:** 38-207 – Calculus III

## Grading Policy

Three 1 hour closed book exams announced at least 1 week in advance. The exams will count 50% of your final grade.

The laboratory average will count the remaining 25% of the final grade.  
based on approximately 12 full period experiments requiring formal report

Homework problems will be assigned and collected weekly. They will not be checked. Homework record can raise final average by 2 to 3 points.

## Support Service

There are services available for students with disabilities. Any such condition should be communicated privately to the instructor on the first day of class so that appropriate arrangements or accommodations can be made.

## Topics

## Part I - Electrostatics

### Charge and matter - Coulomb's law

### Electric field

## Gauss' Law

## Electric potential

Capacitance \*

### Current and resistance

## EMF and circuits

## PART II - Magnetostatics

## The magnetic field