

Syllabus

There are sixteen units in ESG's **8.02 - Independent Study** sequence. All sixteen units must be passed in order to complete the subject.

Unit 1	Electrostatics
Unit 2	Gauss' Law
Unit 3	Electric Potential
Unit 4	Work and Energy
Unit 5	Conductors
Unit 6	Capacitance and Dielectrics
Unit 7	Current and Resistance
Unit 8	Electromotive Force and Circuits
Unit 9	The Magnetic Field
Unit 10	Ampère's Law
Unit 11	Faraday's Law
Unit 12	Inductance
Unit 13	Magnetic Properties of Matter
Unit 14	AC Circuits
Unit 15	Maxwell's Equations
Unit 16	Electromagnetic Waves and Light

Each of the sixteen units has a study guide with suggested readings and problems from one of several texts (see the **Introduction** for details on which texts are currently in use for **8.02IS**). Units are passed by satisfactory completion of a unit test. These tests are primarily written, but may involve oral explanation of simple E&M phenomena.