

SYLLABUS CURRICULUM

COURSE	Course Name : Fundamental Physics II
	Course Code : SF184202
	Credit : 3 sks
	Semester : II

COURSE DESCRIPTION	
LEARNING OUTCOMES	
LO5	Understand the basic science and mathematics.
COURSE LEARNING OUTCOMES	
MAIN SUBJECT	
<p>The focus of this course are as follows:</p> <ul style="list-style-type: none"> - Coulomb laws and electric field : coulomb laws, electric fields, Gauss's laws; - potential electrical and capacitors: Integral strong electric field lines, potential energy and electric potential, capacitance and capacitors; - power lines : power lines and current density, conductivity and resistivity, heat arising in the resistor, relationship series, parallel to the resistor; - Magnetic field: magnetic induction and magnetic flux, motion cargo in magnetic field coil in a magnetic field, use of magnetic field, an electric measuring instrument and the properties of magnetic materials, magnetic inductor calculation by an electric current; - motion style electric induction : Faraday discovery, GGL induced by a conductor moving in magnet field, EMF induced by a time varying current, mutual inductance, magnetic power in the inductor, Len's laws; - Flow round robin: Induction transient, resistance, inductance and capacitance in alternating current, impedance diagrams, circuit alternating current. 	
PREREQUISITES	
Fundamental Physics I	
REFERENCE	
<ol style="list-style-type: none"> 1. Halliday & Resnic; 'Fundamental of Physics'. John Wiley and Sons, New York, 1987 2. Tim Dosen, "Diktat Fisika I", "Soal-soal Fisika I", Fisika FMIPA-ITS 3. Petunjuk Praktikum Fisika Dasar", Fisika, MIPA-ITS 4. Alonso & Finn, "Fundamental University Physics", Addison Wesley Pub Comp Inc, 13`ed, Calif, 1990 	

5. Tipler, PA,(ted. L Prasetio dan R.W.Adi), "Fisika : untuk Sains dan Teknik, Jilid 1", Erlangga, Jakarta, 1998
6. Giancoli, DC., (terj, Yuhilza H), 'Fisika, jilid 1', Erlangga, Jakarta, 2001