

Course Information	
Course title	Electromagnetics (I)
Semester	110-1
Designated for	DEPARTMENT OF ELECTRICAL ENGINEERING
Instructor	<a href="#">CHUN-HSING LI</a>
Curriculum Number	EE2010
Curriculum Identity Number	901 25110
Class	05
Credits	3.0
Full/Half Yr.	Half
Required/ Elective	Required
Time	Monday 3,4(10:20~12:10) Tuesday 7(14:20~15:10)
Remarks	The upper limit of the number of students: 50.
Ceiba Web Server	<a href="http://ceiba.ntu.edu.tw/1101EE2010_05">http://ceiba.ntu.edu.tw/1101EE2010_05</a>
Course introduction video	
Table of Core Capabilities and Curriculum Planning	<a href="#">Table of Core Capabilities and Curriculum Planning</a>

### Course Syllabus

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Course Description	<p>This course will introduce the essential elements of electromagnetics for electrical and computer engineering, including the following topics:</p> <ol style="list-style-type: none"> <li>1. Vectors and Fields</li> <li>2. Maxwell's Equations in Integral Form</li> <li>3. Maxwell's Equations in Differential Form, and Uniform Plane Waves in Free Space</li> <li>4. Fields and Waves in Material Media</li> <li>5. Electromagnetic Potentials and Topics for Circuits and Systems</li> </ol>
Course Objective	<p>The purpose of this course is to let students understand the fundamentals of electromagnetics and know how to use them for practical applications.</p>
	<p>(全系統一的標準)</p> <ol style="list-style-type: none"> <li>1. Prerequisites:</li> </ol> <p>(1) Physics.</p>

Course Requirement	<p>(2) Calculus.</p> <p>2. Grading (Total: 105%)</p> <p>(1) Midterm exam: 40% (Ch 1.1 ~ Ch 3.3)</p> <p>(2) Final exam: 40% (Ch 3.4 ~ Ch 5.3, Ch 5.6 ~ Ch 5.7, Ch 5.4 ~ Ch 5.5 will be taught in EM(II))</p> <p>(3) Homework: 20%</p> <p>(4) 期末參加全國電磁能力測驗: 5% (志願參加, 未參加不扣分, 參加者依考試成績, 外加0-5分)</p>	
Office Hours	Appointment required. Note: By appointment.	
References	<p>Textbook: N. N. Rao, Elements of Engineering Electromagnetics, 6th ed., 2004.</p> <p>References:</p> <p>1. B. M. Notaros, MATLAB-Based Electromagnetics, 2014.</p> <p>2. D. K. Cheng, Field and Wave Electromagnetics, 2nd ed., 1989.</p>	
Designated reading	待補	
Grading		
<b>Progress</b>		
Week	Date	Topic