

## Module Description

<b>Module name</b>	Course Module
<b>Module level, if applicable</b>	Bachelor of Electrical Engineering
<b>Code, if applicable</b>	5115-085-2
<b>Subtitle, if applicable</b>	-
<b>Course, if applicable</b>	Electromagnetic Field (Medan Elektromagnetik)
<b>Semester(s) in which the module is taught</b>	3 <sup>rd</sup> (odd semester)
<b>Person responsible for the module</b>	Lecturer of Course
<b>Lecturer</b>	Drs. Readysal Monantun M.Pd.
<b>Language</b>	Indonesian
<b>Relation to Curriculum</b>	This course is one of the Subjects in the Field of Study and Supporting Expertise given in 3 <sup>rd</sup> semester (odd semester)
<b>Type of teaching, contact hours</b>	<p>Teaching methods used in this course are:</p> <ul style="list-style-type: none"> <li>- <u>Lecture (i.e., group investigation, small group discussion, case study, and video based learning)</u></li> <li>- <u>Structured assignments (i.e., essays and case study)</u></li> </ul> <p>The class size for lecture is 30 students.            Contact hours for lecture is 27 hours, assignments (structured tasks) is 32 hours and learn individually is 32 hours</p>
<b>Workload</b>	<p>For this course, students are required to meet a minimum of 87 hours in one semester, which consist of:</p> <ul style="list-style-type: none"> <li>- 23 hours for lecture</li> <li>- 32 hours for structured assignments</li> <li>- 32 hours for learn individually</li> </ul>
<b>Credit points</b>	2 credit points (equivalent with 3 ECTS)
<b>Requirements according to the examination regulations</b>	Students must attend at least fourteen lecture meetings and submit all scheduled assignments before the final exam.
<b>Recommended prerequisites</b>	-

<b>Module objectives/intended learning outcomes</b>	<b>Course Learning Outcomes :</b> 1. Understanding vector analysis in electromagnetic fields (20) 2. Understanding electrostatics and electrodynamics, as well as magneto static and magneto dynamic (20) 3. Understanding electric field strength and magnetic field strength (20) 4. Interpreting Maxwell's equations (40)
<b>Content</b>	<b>Students will learn about:</b> application of Maxwell's equations in static and dynamic magnetic field problems which include electric charges, electric fields, Gauss's law, electric potential, capacitors and dielectrics, current and resistance, electric motion and electric power circuits, magnetic fields, Ampere's law, Faraday's law of induction , alternating current inductance, and Maxwell's equations.
<b>Forms of Assessment</b>	Assessment components and weights include: attendance with a weight of 10%, General skills from class discussion assessments with a weight of 30%, Special skills from final project assignments and mid-term and end-of-semester examinations with a weight of 30% and Knowledge from quiz assessments 30%
<b>Study and examination requirements and forms of examination</b>	<b>Study and examination requirements:</b> <u>Attendance:</u> Students who are not present at the online meeting or face-to-face, whether with notification or not, more than 10% of the total meeting are not allowed to take the end-of-semester exam and are considered not to have passed (getting an E grade) <u>Lateness:</u> - Late joining online meeting more than 20 minutes is not allowed to attend lectures (online meeting) - Late submission of assignments for 1-7 days from the set deadline will result in a 5 point deduction from a total of 100 points. - Late submission of assignments for more than 7 days will result in a deduction of 10 points from a total of 100 points <u>Academic Cheating :</u> Students are required to comply with standard rules and policies regarding academic honesty and avoid plagiarism and cheating in exams. Acts of plagiarism and cheating in the exam will be given an E score on the exam <u>Ethics in class:</u> - Students are not allowed to wear tight/transparent clothes - Students do not use communication tools for purposes that are not related to learning. - Students do not make noise that disturbs the order of learning. <b>Form of examination:</b> a. Test (essay). b. Non-test (portofolio, observation, and presentation)
<b>Media employed</b>	Direct Whiteboard and Power Point Presentation

<b>Reading list</b>	<ol style="list-style-type: none"><li data-bbox="581 199 1440 268">1. Dipojono, H, K. Medan Elektromagnetik, Catatan Kuliah. ITB Press, 2021.</li><li data-bbox="581 275 1440 342">2. Kartija, J, dkk. Medan Elektromagnetik, Teori &amp; Aplikasinya. Refika, 2019.</li></ol>
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