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Module designation	Mechanics and Electromagnetism
Module level, if applicable	Undergraduate
Code, if applicable	PIPAUM6203
Subtitle, if applicable	-
Courses, if applicable	-
Semester(s) in which the module is taught	Odd/Spring Term
Person responsible for the module	Yessi Affriyenni, S.Pd, M.Sc
Lecturer	Yessi Affriyenni, S.Pd, M.Sc Agung Mulyo Setiawan, S.Pd, M.Si Vita Ria Mustikasari, S.Pd, M.Pd Prof. Dr. Arif Hidayat, M.Si Prof. Dr. Sutopo, M.Si Dr. Hari Wisodo, S.Pd, M.Si
Language	Bahasa Indonesia
Relation to curriculum	Compulsory, 3 rd semester.
Type of teaching, contact hours	Guided-Inquiry, Presentation, Direct Instruction: 3 x 50 = 150 minutes. Laboratory Work: 1 x 170 = 170 minutes
Workload	1. Class Activities: 3 x 50 = 150 minutes (2.5 hours) per week. 2. Exercises and Assignments: 3 x 60 = 180 minutes (3 hours) per week. 3. Private study: 3 x 60 = 180 minutes (3 hours) per week. 4. Laboratory Work: 1 x 170 minutes = 170 minutes (2.83 hours) per week.
Credit points	4 credit points (~6.35 ECTS cr-eq)
Requirements according to the examination regulations	Minimum of attendance is 80% for a semester
Recommended prerequisites	PIPAUM6201 – Basic Physics I PIPAUM6202 – Basic Physics II
Module objectives/intended	After completing this module, students are expected to:

learning outcomes	LO 2: master basic physics knowledge and earth science using the Nature of Science (NOS) along with logical, critical, systematical, and innovative thinking in team collaboration using local potential and information technology development.
Content	This course covers the following three main topics: 1) The laws of motion, 2) Rigid bodies, 3) Static fluids, 4) Dynamic fluids, 5) Electric Field, 6) Gauss Law, 7) Capacitance, 8) Dielectric, 9) Electric current, 10) Magnetic field, 11) Magnetic Force, 12) Faraday's Law, and 13) Alternating Current
Study and examination requirements and forms of examination	Assignment, Quiz, Midterm, Final Examination, Oral Test, Performance
Media employed	Slide Show, Video, White Board, Moodle (SIPEJAR), and Laboratory Instruments
Reading list	<ol style="list-style-type: none"> 1. Serway, R. A., dan Jewett, J. W., 2014, <i>Physics for Scientists and Engineers with Modern Physics</i> 9th Ed., Boston: Brooks/Cole. 2. Serway, R. A., dan Vuille, C., 2015, <i>College Physics</i> 10th Ed. Volume 1, Stamford: Cengage Learning 3. Halliday, D., Resnick R., dan Walker J., 2014, <i>Fundamentals of Physics</i> 10th Ed., New Jersey: John Wiley & Sons, Inc. 4. Giancoli, D. C., 2014, <i>Physics Principles with Applications</i> 7th Ed., Boston: Pearson Education, Inc. 5. Fishbane, P. M., Gasiorowicz, S. G., dan Thornton S. T., 2005, <i>Physics for Scientists and Engineers with Modern Physics</i>, New Jersey: Pearson Education, Inc. 6. Young, H. D., dan Freedman, R. A., 2016, <i>Sears and Zemansky's University Physics with Modern Physics</i> 14th Ed., New Jersey: Pearson Education, Inc. 7. Tipler, P., dan Mosca G., 2008, <i>Physics for Scientists and Engineer with Modern Physics</i>, New York: W. H. Freeman and Company. 8. Knight, R. D., 2017, <i>Physics for Scientists and Engineers a Strategic Approach</i> 4/E with Modern Physics, Boston: Pearson Education, Inc. Serway, R. A. & Jewett, J. W. 2004. <i>Physics for Scientists and Engineers</i>. New York: Thomson Brooks.
Date of last amendment made	May, 2020