

Module designation	<i>Basic Physics for Agriculture</i>
Semester(s) in which the module is taught	<i>1<sup>st</sup></i>
Person responsible for the module	<i>Dr. Ir. Afandi, MP</i>
Language	<i>Indonesian language</i>
Relation to curriculum	<i>Compulsory</i>
Teaching methods	<i>Lectures (100 minutes) Practicum sessions (170 minutes)</i>
Workload (incl. contact hours, self-study hours)	<i>Contact hours : 14 weeks x 100 minutes Structured learning: 14 weeks x 120 minutes Independent study: 14 weeks x 120 minutes Practicum sessions: 14 weeks x 170 minutes</i>
Credit points	<i>3 (2-1) CP or 4.76 (ECTS) ((14 weeks x 100 minutes) + (14 weeks x 120 minutes) + (14 weeks x 120 minutes) + (14 weeks x 170 minutes)) : 60 minutes/hour = 119 hours : 25 study hours/ECTS = 4.76 (ECTS)</i>
Required and recommended prerequisites for joining the module	-
Module objectives/intended learning outcomes	- <i>Students are able to apply the basic concepts and principles of cultivation technology and the development of sustainable agriculture technology</i>
Content	<i>The Basic Physics course is a 3 (2-1) credit course. This course contains studies on: Basic units and vectors; Motion: straight and circular; Force and mechanics: work, power energy, momentum, thermodynamics, fluid mechanics; electrodynamics, and electrostatic, electromagnetic, optics, and core physics</i>
Examination forms	<i>oral presentation, essay</i>

Study and examination requirements	<p><i>Participants are evaluated based on their performance in class (lectures) (70%) and lab (practicum) (30%).</i></p> <p><i>Performance in theory (100%):</i>  <i>Mid Exam (20%)</i>  <i>Final Exam (20%)</i>  <i>Assignments (40%)</i>  <i>Class participation (10%)</i>  <i>Individual quiz (10%)</i></p> <p><i>Performance in practicum (100%):</i>  <i>Practicum exam (30%)</i>  <i>Pre-test or post-test (10%)</i>  <i>Experiment reports (60%)</i></p>
Reading list	<ol style="list-style-type: none"> <li>1. Walker J, Halliday D, Resnick R. 2014. <i>Fundamentals of physics</i>. 10th edition. 2014. Wiley.</li> <li>2. Sutarno. 2013. <i>Fisika untuk Universitas</i>. Penerbit Graha Ilmu.</li> <li>3. Rosyid, M. Farchani, Eko Firmansah, Yusuf Dyan Prabowo. 2015. <i>Fisika Dasar</i>. Penerbit Periuk. Yogyakarta</li> <li>4. Jati, B. M. E. 2018. <i>Pengantar fisika 1</i>. UGM PRESS.</li> <li>5. Frederick J Bueche. 1992. <i>Fisika</i> 8th edition. Erlangga</li> </ol>