



Subject Module  
 Department of Agrotechnology  
 Faculty of Agriculture  
 University of Islam Malang

## Module Handbook

<b>Module Title</b>	Basic Plant Protection
<b>Module Level, if available</b>	Undergraduate, Study Program of Agrotechnology
<b>Headings, if available</b>	MKD 60605
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<b>Subject (MK)</b>	Basic Plant Protection
<b>Semester</b>	5
<b>Course Coordinator</b>	Dr. Ir. Djuhari, M.Si.
<b>Teaching Team</b>	-
<b>Language of instruction</b>	Indonesian Language/English
<b>Linkages with the Curriculum</b>	Study Program : Agrotechnology Specialization: Agrotechnology Type: Compulsory/ <del>Elective</del>
<b>Learning Methods and Duration</b>	<ol style="list-style-type: none"> <li>1. Lecture: 100 minutes/meeting (8 meetings)</li> <li>2. Research Based Learning through Laboratory Work, experiment : 170 minutes/meeting (6 meetings)</li> <li>3. Assignments and Presentation (individual and group)</li> </ol>
<b>Student Study Load</b>	<ol style="list-style-type: none"> <li>1. Lecture: 100 minutes/meeting (8 meetings)</li> <li>2. Laboratory Work: 170 minutes/meeting (6 meetings)</li> <li>3. Assignments/quiz/presentation</li> <li>4. Attendance: 75% of total attendance</li> </ol>
<b>Credit Weight</b>	3 credits
<b>Requirements for Passing the Subject</b>	<ul style="list-style-type: none"> <li>• Attendance &gt;75%</li> <li>• The final score of all the components of the learning evaluation &gt;44</li> </ul> <p>The final score component:</p> <ul style="list-style-type: none"> <li>• 25% Midterm Exam</li> <li>• 25% Final Exam</li> <li>• 20% Laboratory Work</li> <li>• 20% Assignments/Presentation (individual and group)</li> <li>• 10% Presence</li> </ul>
<b>Prerequisite Subject</b>	----
<b>Learning Outcomes</b>	<p>Expected Learning Outcomes students can:</p> <ol style="list-style-type: none"> <li>1. Have an attitude of creative and innovative thinking in their work in accordance with professional ethics in the field of agriculture (ILO 1)</li> <li>2. Behave according to the professional code of ethics in agriculture based on the preaching of the Islamic faith of Ahlusunnah wal Jama'ah (ILO 2)</li> </ol>

	<ol style="list-style-type: none"> <li>3. Have good and deep knowledge in the field of basic agricultural science that supports Agrotechnology (ILO 3)</li> <li>4. Able to solve problems that arise in the field of agrotechnology and related fields of science (ILO 5)</li> </ol>
<b>Learning Content</b>	<p><b>After attending the lecture students can:</b></p> <ol style="list-style-type: none"> <li>1. study the basic concepts of Plant Protection.</li> <li>2. analyze the determining factors in plant protection strategy</li> <li>3. determine the procedure in developing a Plant Protection strategy</li> <li>4. implement and evaluate plant protection strategies based on environmental conservation</li> </ol> <p><b>Subjects include:</b></p> <p><b>1. Understanding and History of Plant Protection</b></p> <ol style="list-style-type: none"> <li>1.1. Definition of Plant Protection</li> <li>1.2. History of Crop Protection</li> <li>1.3. Scope and Purpose</li> <li>1.4. Concepts and Components of Interference</li> </ol> <p><b>2. Concepts and Components of Disruption in Plants</b></p> <ol style="list-style-type: none"> <li>2.1 Plant Diseases and Their Causes</li> <li>2.2 Types of Plant Pests</li> <li>2.3 Weeds as Plant Disruptors</li> </ol> <p><b>3. Plant Destruction Organism Control Techniques</b></p> <ol style="list-style-type: none"> <li>3.1 Physical-Mechanical, Natural, and Regulatory Control</li> <li>3.2 Biological Control and Cultural techniques</li> <li>3.3 Chemical Control</li> <li>3.4 Introduction to Integrated Pest Control</li> </ol> <p><b>4. Introduction to Integrated Pest Control</b></p> <ol style="list-style-type: none"> <li>4.1 Definition of Integrated Pest Control (IPM)</li> <li>4.2 IPM with Engineering</li> <li>4.3 IPM with Environmental Engineering</li> </ol>
<b>Test Terms and Forms</b>	<p><b>Exam requirements :</b></p> <ul style="list-style-type: none"> <li>- Minimum attendance 75 %</li> <li>- Enrolled as an active student</li> <li>- Registered as an exam participant</li> </ul> <p><b>Exam form : Essay</b></p>
<b>Learning Media</b>	LCD Projector, Screen, Design of Learning Management System, Practicum Manual
<b>References</b>	<p><b>Main References:</b></p> <ol style="list-style-type: none"> <li>1. Triharso. 2004. Dasar-dasar Perlindungan Tanaman. Gadjah Mada University Press. Yogyakarta. 363p.</li> <li>2. Pracaya. 2007. Hama dan Penyakit Tanaman. Edisi Revisi. Penebar Swadaya. Jakarta</li> <li>3. Sinaga, S.M. 2009. Dasar-dasar Ilmu Penyakit Tumbuhan. Penebar Swadaya. Jakarta</li> <li>4. Kalshoven, L.G.E. 1981. The Pest of Crops in Indonesia. Ichtar Baru-Van Hoeve. Jakarta. 701p.</li> </ol> <p><b>Supporting References</b></p> <ol style="list-style-type: none"> <li>5. Al Qur'an dan terjemahannya</li> <li>6. Kusnaedi. 1997. Pengendalian Hama tanpa</li> </ol>

	<p>Pestisida. Penebar Swadaya. Jakarta.</p> <ol style="list-style-type: none"><li>7. Indah, K.K. dan J. Priyadi. 1991. Pengendalian Hama Terpadu Sebuah Pengantar. Kanisius. Yogyakarta.</li><li>8. Djafaruddin. 1996. Dasar-dasar Pengendalian Penyakit Tanaman. Bumi Aksara. Jakarta. 271p..</li><li>9. Natawigena, H. 1993. Dasar-dasar Perlindungan Tanaman. Trigenda Karya. Bandung.</li><li>10. Untung, K. 2006. Pengantar Pengelolaan Hama Terpadu. Edisi Kedua. Gadjah Mada University Press. Yogyakarta. 384p.</li><li>11. Oka, I.N. 2005. Pengendalian Hama Terpadu dan Implementasinya di Indonesia. Gadjah Mada University Press. Yogyakarta</li></ol>
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