



## **MODULE HANDBOOK**

### **Multi and Hyperspectral Remote Sensing**

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## Multi and Hyperspectral Remote Sensing

Module designation	Multi and Hyperspectral Remote Sensing
Semester(s) in which the module is taught	Sixth (6th) Semester
Person responsible for the module	Revi Hernina, S.Si, M.T.
Lecturer	1. Revi Hernina, S.Si, M.T.
Language	Bahasa Indonesia
Relation to curriculum	Elective
Teaching methods	Student-centered Learning and combination with Cooperative Learning
Workload (incl. contact hours, self-study hours)	<ol style="list-style-type: none"> <li>1. Lectures: 100 minutes per week per semester</li> <li>2. Assignment: 120 minutes per week per semester</li> <li>3. Independent study: 120 minutes per week per semester</li> <li>4. Minutes x weeks x semester: <math>340 \times 14 \times 1 = 4760</math> minutes per semester</li> <li>5. Midterm Examination: 100 minutes per semester</li> <li>6. Final Examination: 100 minutes per semester</li> <li>7. Total workload per semester: 4950 minutes / 82 hours 40 minutes</li> </ol>
Credit points	2 (Two)
Required and recommended pre-requisites for joining the module	<ol style="list-style-type: none"> <li>1. Cartography</li> <li>2. Surveying and Mapping</li> <li>3. Remote Sensing</li> </ol>
Module objectives/intended learning outcomes	After completing this course, students are able to analyze objects using the immediate sensing imagery and hyperspectral based on the principles of remote sensing
Content	<ol style="list-style-type: none"> <li>1. The basic concept of multispectral and hyperspectral imagery</li> <li>2. Basic remote sensing physics of multispectral and hyperspectral imagery</li> <li>3. Characteristics of Multispectral and Hyperspectral Imagery</li> <li>4. Basic Principles of data Processing of Multispectral and Hyperspectral Imagery</li> <li>5. Data Analysis of Multispectral and Hyperspectral Imagery</li> <li>6.</li> </ol>
Examination forms	-
Study and examination requirements	<ol style="list-style-type: none"> <li>1. Group Score (20%)</li> <li>2. Mid Examination (30%)</li> <li>3. Individual Score (50%)</li> </ol>
Reading list	<p>Borengasser, Hungate and Watkins, 2007, Hyperspectral remote sensing: Principle and applications, Taylor and Francis, London</p> <p>Lillesand, Kiefer and Chipman, 2005. Remote Sensing and image interpretation, fifth edition, John Willey and Sons, Singapore</p> <p>John R Jensen. 2005. Introductory Digital Image Processing A Remote Sensing Perspective. Pearson Prentice Hall. United States of America. 2005</p> <p>Aronof, Stand. 2005. Remote Sensing for GIS Managers. California: ESRI Press</p>