



## **MODULE HANDBOOK**

### **Radar Remote Sensing**

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## Radar Remote Sensing

Module designation	Radar Remote Sensing
Semester(s) in which the module is taught	Fifth (5th) Semester
Person responsible for the module	Jarot Mulyo Semedi, M.Si.
Lecturer	1. Jarot Mulyo Semedi, M.Si.
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. Remote Sensing</li> <li>2. Remote Sensing Lab</li> </ol>
Module objectives/intended learning outcomes	After completing this course, semester 4 students were able to analyze the phenomenon of spates by utilizing remote sensing technology
Content	<ol style="list-style-type: none"> <li>1. The concept and characteristics of remote sensing radar</li> <li>2. Radiometric and geometric correction in radar image</li> <li>3. Visual image interpretation vs digital image interpretation</li> <li>4. Interferometry method and polarimetry for image radar interpretation</li> <li>5. Radar image in the field of land, waters, and atmosphere</li> </ol>
Examination forms	-
Study and examination requirements	<ol style="list-style-type: none"> <li>1. Group &amp; Presentation Score (20%)</li> <li>2. Individual Score (10%)</li> <li>3. Quiz (10%)</li> <li>4. Midterm Examination (25%)</li> <li>5. Final Examination (25%)</li> </ol>
Reading list	<p>Lillesand, T. M, R. W. Kiefer &amp; Jonathan W. Chipman. 2004. Remote Sensing and Image Interpretation, 5Th Ed. John Wiley &amp; Sons, Inc.</p> <p>Richards, J. A. 2009. Remote Sensing with Imaging Radar. Springer-Verlag Berlin Heidelberg.</p> <p>Soergel, U. 2010. Radar Remote Sensing of Urban Areas. Springer-Verlag Berlin Heidelberg.</p> <p>Lusch, D. P. 1999. Introduction to Microwave Remote Sensing. Center for Remote Sensing and Geographic Information Science, Michigan State University</p> <p>Cheney, M &amp; Brett Borden. 2009. Fundamentals of Radar Imaging. Society for Industrial and Applied Mathematics</p>