



## **MODULE HANDBOOK**

### **Climate and Life**

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Faculty of Mathematics and Natural Sciences  
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## Climate and Life

Module designation	Climate and Life
Semester(s) in which the module is taught	Fourth (4th) Semester
Person responsible for the module	Dra. Ratna Saraswati M.S.
Lecturer	1. Dra. Ratna Saraswati M.S.
Language	Bahasa Indonesia
Relation to curriculum	Compulsory
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	1. Hydrogeography
Module objectives/intended learning outcomes	Students are able to understand the role of climate elements and their influence on human life.
Content	<ol style="list-style-type: none"> <li>1. Climate elements: solar radiation, rainfall, air temperature, moisture, wind and evapotranspiration</li> <li>2. Climate in Indonesia</li> <li>3. Climate impact on human life</li> <li>4. Climate impact on agriculture area: wetlands and dry land</li> <li>5. Climate aspects of water resources</li> <li>6. Climate change to human life</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 (40%)</li> <li>3. Midterm Examination (30%)</li> <li>4. Final Examination (10%)</li> </ol>

Reading list	<p>Barry, R.G., Chorley, R.J. &amp; Serreze, M.C. 2019. Atmosphere, Weather and Climate. Routledge. Taylor and Francis Group</p> <p>Rapp, D. 2014. Assessing Climate Change. Temperature, Solar Radiation and Heat Balance. 3rd ed. Springer</p> <p>Filho, W.L. Ed. 2012. Climate Change and the Sustainable Use of Water Resources. Springer</p> <p>O'Hare, G., Sweeney, J. &amp; Wilby, R. 2005. Weather, Climate and Climate Change. Human Perspective. Pearson. Prentice Hall</p> <p>Sun, De-Zheng., Bryan, F. Ed. 2010. Climate Dynamics: Why Does Climate Vary? American Geophysical Union. USA</p> <p>I.M. Sandy. Iklim Regional Indonesia. 1987. Jurusan Geografi FMIPA UI</p> <p>M.J. Manton &amp; L.A. Stevenson. Climate in Asia and the Pacific: Security, Society and Sustainability. 2014. Springer.</p> <p>M. Parry, et al. Assessing the Cost of Adaptation to Climate Change: A Review of the UNFCCC and Other Recent Estimates. 2009. IEED and Grantham Institute for Climate Change.</p>
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