Module Description/Course Syllabi

Study Program : Bachelor Program (S1)

Faculty of Agriculture

University of Andalas

1. ***Course number and name***

PIT622 01 Remote Sensing

2. ***Credits and contact hours/Number of ECTS credits allocated***

3 credits (2 classes, 1 practicum)

3. ***Instructors and course coordinator***

1. Prof. Dr. Ir. Dian Fiantis, M.Sc
2. Dr. Ir Juniarti, SP. MP
3. Frisa Irawan Ginting, SP, MP

4. ***Text book, title, outhor, and year***

1. Earth data. 2024. Remote Sensing. NASA
2. USGS. 2024. What is Remote Sensing and what is it used for. USA.
3. NASA ARSET. Fundamental of Remote Sensing.
4. Planet Lab. 2024. Sentinel hub
5. NASA. 2024. Landsat Science.
6. NASA. 2024. SRTM Earth Data
7. Badan Informasi Geospatial, 2025 Ina-Geoportal
8. Google Earth Engine. 2024. Google Earth Engine Dataset
9. Kamusoko, Courage. 2019. Remote Sensing Image Classification In R. 1st ed.
10. Fiantis D., Rudiyanto, Ginting F.I., Agtalarik A., Arianto D.T., Wichaksono P., Irfan R., Nelson M., Gusnidar G., Jeon S., Minasny B. (2024). Mapping peat thickness and carbon stock of a degraded peatland in West Sumatra, Indonesia. Soil Use and Management, 40 (1), art. no. e12954. DOI: 10.1111/sum.12954

5. ***Specific course information***

A. Brief description of the content of the course (catalog description)

Students are able to explain and use the knowledge and analytical techniques obtained to assess, explain and understand remote sensing, and interpret the main objects of the earth on images of various wavelengths and present them in the form of thematic maps, manually, and calculate the accuracy of interpretation (statistical, descriptive).

B. ***Level of course unit (according to EQF: first cycle Bachelor, second cycle Master)***

First Cycle Bachelor

C. ***Semester when the course unit is delivered***

Even Semester

D. ***Mode of delivery (face-to-face, distance learning)***

Face to face

6. ***Intended***

Learning Outcomes (CPL)
ILO-3: Able to use various methods for soil and crop analysis appropriately in land resource management **P3.2 :** Able to analyze soil and plants precisely, meticulously using the latest methods. **ILO-4**: Able to apply their professional responsibilities to make decisions in land and environmental management **P4.2** : Interpreti

ng soil properties and characteristics **ILO-5:** Able to keep up with the latest knowledge and apply it to support appropriate learning strategies **P5.2** : Using software technology, lab and field equipment for accurate data analysis.
7. *Course Learning Outcomes (CPMK)* *ex. The student will be able to explain the significance of current research about a particular*

topic.
1. Able to analyze soil and plants precisely, meticulously using the latest methods 2. Interpreting soil properties and characteristics 3. Using software technology, lab and field equipment for accurate data analysis
8. *Learning and teaching methods*
Cooperative Learning and Case Method Learning
9. *Language of instruction*
Indonesian
10. ***Assessment methods and criteria***
Summative Assessment : 1. Assignment 2. UTS 3. UAS 4. Internship **Formative**

Assessment:

1. Minutes paper