UNIVERSITAS ANDALAS Study Program : Bachelor Program (S1) Faculty of Agriculture University of Andalas

Course number and name 1.

PIT612 10 Watershed Management

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

3. Instructors and course coordinator

- 1. Prof. Dr. Ir. Aprisal, M.P.
- 2. Dr.Ir., Adrinal MS

4. Text book, title, outhor, and year

1. Chay Asdak. 1995. Hydrology and Management of River Basin Areas UGM Press

Module Description/Course Syllabi

- 2. Hariadi Kartodihardjo, et al. 2004. Watershed Management Institute. Faculty of Forestry, IPB.
- 3. Rusman B. 2014. Soil and Water Conservation. Unand Press.
- 4. Morgan, R. P. C. 1979. Soil Erosion. Longman Group Ltd., New York.
- 5. Singht, Vijay.P. 1992. Elementary Hidrology. Department of Civil Engineering. Lousiana State University. New Jesey.
- 6. Government Regulation No. 37 of 2012. Watershed Management.
- 7. Soil Conservation Act. No 37/2014.

5. Specific course information

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

After completing this learning activity, a participant is expected to be able to know about the basic understanding of watershed management, able to know the methods of watershed planning, implementation, programs and money. Able to explain the understanding and function of watersheds in an ecosystem and watershed hydrology. Able to explain the relationship of watershed characteristics in management. Able to know problems in biophysical, socio-economic and institutional and legal aspects. Able to determine the classification of watersheds, and link with policies and programs related to watershed management. Able to take an ecosystem approach in managingwatershed-scale water resources.

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-2: Able to identify, analyze, and solve land problems in improving productivity and quality of agricultural products for sustainable agricultural development

P2.4 Determining the rate of soil degradation and its causative factors

ILO-4: Able to apply their professional responsibilities to make decisions in land and environmental management

P4.3 Determine alternative solutions to land problems

P4.4 Using regulatory concepts and principles in land utilization and structuring

P4.5 Develop regional development planning

7. *Course Learning Outcomes* (*CPMK*) *ex. The student will be able to explain the significance of current research about a particular topic.*

1. Determine the extent of soil degradation and its causative factors

2. Determine alternative solutions to land problems

3. Using regulatory concepts and principles in land utilization and arrangement

4. Prepare regional development planning

8. Learning and teaching methods

Cooperative Learning and Problem Based Learning

9. Language of instruction

Indonesian

10. Assessment methods and criteria

Summative Assessment :

- 1. Assignment
- 2. UTS
- 3. UAS
- 4. Internship

Formative Assessment:

- 1. Thumb up and thumb down
- 2. Minutes paper