FRAME

Souphanouvong University

Place : Luang Prabang, Date 27/3/2022.

Course Syllabus

1 Program

Title of the study program: B.Sc. Forest Resource

2 Course details

Course Name: Agroforestry

Course code: 3309

Number of credits (hours/week):   3 (2-3-4), Total 144 Hours, 4hours/week, Lecture 32, Practices 48, and Assignment 64 hours.

Course type (tick the appropriate box):   ☒ Required, ☐ Elective, ☐ Other, if other please explain:

Prerequisites courses: No

Semester, in which the course is taught: *tick the appropriate box below*

Year 1		Year 2		Year 3	
Semester 1	**Semester 2**	**Semester 1**	**Semester 2**	**Semester 1**	**Semester 2**
☐	☐	☐	☐	☒	☐

3 Responsible unit

3.1 Department:

Names and affiliations of lecturer(s): **Lecturer**: Kongkeo SOUKANYA.

Affiliation: Department of Forest Resource, Faculty of Agriculture and Forest Resource. Souphanouvong University.

4   Course description

Agroforestry has the potential to improve both farmers' livelihoods and the quality of the environment. While traditional agroforestry is based on indigenous knowledge, modern agroforestry systems are based on research for development. Successful implementation of agroforestry depends on a sound knowledge of system components and how they interact, market access and a conducive policy environment. Participants will be introduced to ecological and economic interactions in agroforestry systems, to principles of classifying agroforestry systems, and to the potentials of selected agroforestry systems for providing socio-economic and environmental benefits. The focus will be on agroforestry systems in Laos, both traditional and modern, and on policies of the Lao government that are relevant for the establishment, management, and promotion of agroforestry systems. A special concern will be how adoption of agroforestry by farmers and forest users can be stimulated and enhanced.

5   Course objectives

- Explain the basic ecological and economic principles of agroforestry

- Identify and explain agroforestry systems that are relevant in the context of Laos.

- Identify needs for which agroforestry could be a solution.

- Suggest agroforestry solutions for location-specific problems.

- Identify opportunities and constraints to the successful implementation of agroforestry.

  - Analyze the legal and policy context of agroforestry in Laos.

After graduation from the course, students will be able to:

Knowledge Students shall obtain knowledge regarding:

- Components of agroforestry systems and their interactions
- General typology of agroforestry systems
- Important agroforestry systems of Laos
- Potential contribution of agroforestry to livelihoods and the environment
- Constraints to the adoption of agroforestry and how they can be overcome.
- Lao policies with relevance for agroforestry

Skills: Students can apply the acquired knowledge for the identification of agroforestry solutions to environmental and livelihood problems in consultation with various stakeholders (farmers, officials, extension workers). Moreover, they will acquire the skill to spot policy opportunities and constraints and to develop strategies on how to exploit the opportunities and overcome the constraints.

Application of theories to practice: students shall be able to acquire new knowledge on agroforestry from multiple sources: scientific publications, reports, informants on various levels. They shall be able to efficiently apply the acquired knowledge in local contexts.

Social knowledge and skills: They can communicate with a diversity of stakeholders ranging from farmers to government officials and they are also able to communicate agroforestry content to the interested public and to media.

5.1   Learning objectives of particular modules

If the course is divided into sections or modules, please state the learning objectives for the specific sections/modules taught within the course

6   Course teaching methods

This course normally has a lecture in the classroom in before and after panic covid-19, the teaching will separately lesson into difference session based on credits such as lecture, field study and practice then divide into group study in the classroom and field.

7   Teaching plan

Specify the teaching plan for each week of the course, including the methods used to relay information to the students and the number of hours spent on the subjects

Week	Content	Method/activity	Hours
1	**Chapter 1: Introduction** 1. Definition, Principles, and Objectives of Agroforestry 2. Typology of Agroforestry Systems 3. History of Agroforestry	- Lecture - group discussion - Q&A	4
2	4. Benefits and potentials of Agroforestry 5. Constraints and risks of Agroforestry 6. Agroforestry in Laos	- Lecture - group discussion - Q&A	4
3	Each group identifies and characterizes a system of agroforestry in a specific location	Group work	16
4	Chapter 2: Agroforestry System Components 1. Ecological interactions of agroforestry system components 2. Economic interactions of agroforestry system components	- Lecture - group discussion - Q&A	4

	3. Managing the interactions of system components		
5	Review the agroforestry component and example for its component	Group Work	16
6	**Chapter 3: Agroforestry Systems** 1. Traditional agroforestry systems of Laos and SE-Asia. 2. Modern agroforestry systems	- Lecture - group discussion - Q&A	4
7	- Summarize lessons from video and supporting paper - Identify agroforestry systems suitable for Lao farmers	Group Work	12
8	**Chapter 4: Agroforestry for Livelihood and the Environment** 1. Introduction to ecosystem services 2. Introduction to livelihoods 3. Potential and Problems of agroforestry for improving ecosystems services and the environment. 4. Potential and problems of applying agroforestry for livelihood improvement	- Lecture - group discussion - Q&A	4
9	- Groups analyse selected agroforestry systems with respect to the ecosystem services and livelihood benefits they provide	Group Work	12
10	**Chapter 5: Agroforestry Policy and Planning** 1. Definitions 2. The role of agroforestry in land use and land use policy 3. Understanding the role of regulations and incentives. 4. The policy context for agroforestry in Laos	- Lecture - group discussion - Q&A	4
11	- Compare Lao national plan for agroforestry development with plan of another country	Group Work	
12	**Chapter 6 Methods of Agroforestry Extension**	- Lecture - group discussion	4

Co-funded by the
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	1. Definition and meaning of extension and participation 2. The role of extension staff 3. Principles of agroforestry extension 4. Principles and methods of participation 5. Using medias 6. Marketing and factors analysis of marketing 7. Identifying and overcoming obstacles to the adoption of agroforestry	- Q&A	
13	- Select a problem that could prevent farmers from adopting agroforestry and identify means to overcome this problem	Group work	12
14	**Chapter 7: Agroforestry research** 1. The importance of research and Research Method for agroforestry 1.1. The meaning and types of research approaches 2. Agricultural-Forestry Research Planning 3. Design of agroforestry research 4. Scope, objectives and materials for agroforestry research 4.1. Scope of research 4.2 Objectives of agroforestry research 4.3. Agricultural and forestry research materials	- Lecture - group discussion - Q&A	3
15	5. Quantitative methods 6. Qualitative methods 7. Mixed methods 8. Research design 9. Research implementation	- Lecture - group discussion - Q&A	12
16	Topic and data collection including analysis to outcome	- Lecture - group discussion - Q&A	12
17	**Chapter 8: Upland forestry** 1 Agroforestry on upland areas 2 The importance of upland land management for sustainability 3 Problems and Constraints on Upland Land Use 4 Forest agriculture in the form of soil conservation	- Field study and Write Report	3

18	Each group writes a plan for a research project on agroforestry	- Lecture - group discussion - Write Report	8
19	Field visit at Farm or field of agroforestry practicing.	Group	4
20	Report and Presentatoin	- Field study and Tour	4
	Final Exam	Individual	2

8   Material needs

Course equipment:

Tools used in the classes and for practical exercises includes LCD and Projector, Portable Ozone meter, Moisture Meter, Portable Gas Methane Detector, A-Frame.

9   References

9.1   Compulsory reading list

1. ***Phenchanthamaly K, et al, 2018. Agroforestry Textbook, Lao language. Online at: Link***

9.2   Suggested reading list

1. *Wallop Chandrabao, Suwat Terapongtanakorn, and Pumisak Intanon, 2013. The Study on Agroforestry for Self–Reliance of Farmers and Communities. Online at: https://www.tci-thaijo.org/index.php/jla_ubu/article/download/94492/73881/*

2. *MOAF, 2015. Agriculture Development Strategy to 2025 and Vision to the Year 2030. Online at Link*

3. *The Center for Agroforestry, University of Missouri and North Central SARE, 2018. Online at: Link*

4. *Lachlan McKenzie and Petra Schneider, 2019. Perma-Culture Manual (Lao Document). Online at: Link*

5. *P.K. Ramachandran Nair, 1993. An Introduction to Agroforestry. International Centre for Research in Agroforestry. Online at Link*

10 Assessment of students

10.1 Description of assessment

Course assessment for students' grade, this will collect the score from several criteria, as class participation 10%, Activities with Q&A 10%, Report 20%, Midterm exam 20%, and final exam 40%.

10.2 Grade distribution and student assessment

Grading scale

Grade		Total score	Scale
Symbol	**Verbal grade**		
A	Excellent	90-100	4.00
B$^+$	Very Good	85-89	3.5
B	Good	80-84	3.00
C+	Fairly Good	75-79	2.50
C	Fair	70-74	2.00
D+	Poor	65-69	1.50
D	Very Poor	60-64	1.00
F	Fail	59	0.00