KSH 332 Forest Ethnobiology

Credit	:	2(2-0)
Semester	:	5 (odd)
Course format	:	100 minutes per week. 14 weeks.
Pre-requisite	:	**-**
Lecturers	:	Dr. Ervizal A.M. Zuhud, M.S (Course coordinator)
		Dr. Agus Hikmat, MSc.F.
		Dr. Burhanudin Masy'ud, MS
		Mr. Siswoyo, MSi
		Mr. Edhi Sandra, MSi

Course Description

Efforts for conservation of forest resources are related to the presence of local people living inside and around the forest/protected areas. Various traditional knowledge play very important roles in conservation, from protection, preservation and sustainable utilization. This course is designed to provide students with knowledge of the importance of traditional knowledge within the context of conservation of natural resources and their ecosystems.

Course Objectives

This course is intended to support the development of conservation knowledge and technology based on the development of various local wisdoms that have been proven empirically to play important role in forest resources utilization, biodiversity and environment.

Learning Outcomes

1. **General learning outcomes**

   Upon successful completion of this course the students will be able to:

   Explain the definition and scope of forest ethnobiology, methodology and application of the development of data and information on ethnobiology for the development of bioregional sustainable resources development.

2. **Specific learning outcomes**

Upon successful completion of this course the students will be able to:

Understand and explain how to maintain, rehabilitate and develop forest resources sustainable utilization through the application of forest ethnobotanical data and information development on each specific bioregion.

Structure of Course Delivery

1. Lectures and discussions.
2. Individual and group assignments.
3. Reading assignments.

Major References

1. Martin, G.J. 1996. Ethnobotany, A People and Plants, Conservation Manual. Chapman & Hall. London.
2. Anonim. 1992. Prosiding Seminar dan Lokakarya Nasional Etnobotani, Cisarua Bogor, 19-20 Februari 1992.
3. Anonim. 1995. Prosiding Seminar dan Lokakarya Nasional Etnobotani II, Yokyakarta, 24-25 Januari 1995.
4. Anonim. 2000. Prosiding Seminar Nasional Etnobotani III di Denpasar Bali 5-6 Mei 2000. KEHATI. Jakarta
5. Sangat, H.M., Zuhud, E.A.M., dan Damayanti, E.K.. 2000. Etnofitomedika Indonesia I (dalam proses penerbitan)
6. DEPKES-IPB-UI-LIPI. 1998. Kembali ke Alam, Manfaatkan Obat Asli Indonesia. Laporan Ekspedisi Biota Medika di Taman Nasional Bukit 30 dan Cagar Biosfer Bukit 12, Riau dan Jambi.
7. WWF-UNESCO-RBG-KEW. People and Plants, Handbook Sources for Applying Ethnobotany to Conservation and Community Development. Issue 1-5.
8. Hoft, M., Barik, S.K. and Lykke, A.M. 1999. Quantitative Ethnobotany, Applications of multivariate and statistical analyses in ethnobotany. People and Plants Working Paper, June 1999, number: 6. Unesco. Paris.
9. Wild, R.G. and Mutebi, J.. 1996. Conservation Through Community use of Plant Resources. People and Plants Working Paper, December 1996, number: 5. Unesco. Paris.
10. Thomas, Y.A., Saigal, S., Kapoor, N. dan Cunningham, A.B.. 1999. Joint Management in the Making, Reflections and Experiences. People and Plants Working Paper, August 1999, number: 7. Unesco. Paris.

11. Colchester, M. 1994. Salvaging Nature. Indigenous Peoples, Protected Areas and Biodiversity Conservation. UNRISD.
12. Cunningham, A.B. 1996. Ethics, Biodiversity and New Natural Products Development. WWF. Gland. Switzerland.
13. _____. 1996. People, Park and Plant Use. People and Plants Working Paper, December 1996. Paris.
14. WWF. 1993. Conservation with People.
15. Laird, S.A.. 1995. Fair Deals in the Search for New Natural Products. WWF, Gland.
16. WWF. 1995. Fair Play, Fair Pay: Laws to Preserve Traditional Knowledge and Biological Resources. WWF. Gland.
17. Muhtaman, D.R. dan Zuhud, E.A.M., 1997. Akses Pemanfaatan Sumberdaya Keanekaragaman Hayati Indonesia. Fakultas Kehutanan IPB-LATIN. Bogor.
18. WWF, 1996. Indigenous Peoples and Conservation: WWF Statement of Principles. Gland.
19. Elisabetsky, E. and Posey D. A. 1994. Ethnopharmacology search for antiviral compounds: treatment of gastrointestinal disorders by Kayapo Medical Specialists. In Ethnobotany and the Search for New Drugs. Jhon Wiley & Sons.
20. _____ and L. Wannmacher. 1993. The Status of Ethnopharmacology in Brazil. in Journal of Ethnopharmacology, 38 (1993) : 137-143.
21. _____, E., Trajber, R. dan.Ming, L.C. 1994. Manual for Plant Collections. In Medicinal Resources of the Tropical Forest. Columbia University Press. New York.
22. Fisher, R.J. 1995. Collaborative Management of Forest for Conservation and Development. IUCN.
23. Cotton, C.M. 1997. Ethnobotany, Principles and Applications. John Wiley & Sons. New York.
24. Aliadi, A. 2001. Memahami Pengetahuan Lokal: Etika, Prinsip dan Metode. Pustaka Latin. Bogor.
25. Zuhud, E.A.M. dkk. 2003. Kembali ke Azas Prinsip Keunikan Sistem Kedirian, Tidak dipublikasikan
26. Kartikawati, S.M. 2004. Pemanfaatan Sumberdaya Tumbuhan oleh Masyarakat Dayak Meratus di Kawasan Hutan Pegunungan Meratus, Kabupaten Hulu Sungai Tengah. Thesis (Tidak dipublikasikan).

Teaching Material Support

The choice of media and type of technology use include:

1. Face-to-face contact.
2. Printed power point presentation.
3. Computer
4. Projector Infocus
5. Whiteboard

Course Outline

Topics	Sub-topics	Bloom's Taxonomy	Week
Introduction	Background, definitions, scope, history of ethnobiology in Indonesia; ethnobiology, prospect and future. Other related disciplines	C1	1
Ethnobiology as the unique principle of self system	Self principles and examples of their application in ethnobiology: traditional wisdoms in natural resources utilization	C1,C2	2 & 3
Methodology in ethnobiology	Collection of qualitative and quantitative data; techniques; data analysis and synthesis; new methodology on socio-biology concepts.	C1,C2,C3	4
Ethnopharmacology	Traditional knowledge of various Indonesian ethnicities in medicinal plants: examples from main ethnicities, examples of traditional ingredients for various diseases	C1,C2	5
Colourings, aromatics, traditional food, spices	Traditional knowledge of various Indonesian ethnicities in colourings plants, aromatics plants, plants for traditional food and poisonous plants: examples from each ethnic including various types of utilizations and ways of processing.	C1,C2	6 & 7
Function and use of ethnobiology data for bioregional-based area development	Functions and uses of ethnobiological data in developing a bioregional-based area. Examples in Indonesia.	C1,C2,C3	8 & 9
Type and function of traditional home garden from various Indonesian ethnicities	Various types and functions of traditional home garden landscapes of various ethnics in Indonesia with examples	C1,C2	10 & 11
Example of plant resources utilization by the Maratus Dayak tribe community	Methodologies and various uses of plants by the Meratus Dayak tribe and their means of preservations	C1,C2	12
Indonesian ethnozoology	Traditional knowledge of various Indonesian ethnicities in utilizing animals for various purposes	C1,C2	13 & 14

Potential Course Overlap

There will be some deliberate overlap topics with other courses, such as formulas or equation (Social Anthropology KPM 233).

Evaluation and Grading

1. **Midterm examination**

   Midterm examination will be held during examination period scheduled by Registrar's office (after 7 weeks lecture). Each exam is composed 100% essay. Length of the exam is 90-120 minutes. The exam will cover course topics delivered in week 1-7. A key and score will be attached on announcement board after exam paper is graded.

2. **Final examination**

   Final examination will be held during examination period scheduled by Registrar's office (after 14 weeks lecture). Each exam is composed True-False (25), Multiple Choice (25), Pair question (20) and essay (10). Length of the exam is 90-120 minutes. The exam will cover course topics delivered in week 8-14. A key and score will be attached on announcement board after exam paper is graded.

3. **Course Practice Reports**

   Group of student are required to submit assigned papers. This assigned papers or reports are objected to help students make connection between lecture material and field application, through case study reports. The due date of the reports submission is one week after during lecture period. Standardized format for paper writing is expected. The reports are graded based on formulas and calculation format.

Compositions of grading are as follows:

Assessment Tools	Maximum Score	% of Grade
Mid-term examination	100	35
Final examination	100	45
Course practice reports	100	20

Final grade classification: A ($\geq$75); B (65-74); C (55-64); D (45-54); E (<45)

Coverage of DFORCE Core Competence

in Forest Ethnobiology (KSH 332)

Code : KSH 332

Course : Forest Ethnobiology

Credit : 2(2-0)

Code	Core Competencies	Course Content Covered	Cognitive Level	Topics
I	Students will be able to understand the meaning of ethnobiology, objectives, scope and linkages between disciplines	Background, definitions, scope, history of ethnobiology in Indonesia; ethnobiology, prospect and future. Other related disciplines	C1	Introduction
II	Students will be able to understand how plants become rare and extinct, rarity criteria and impacts of humans	Self principles and examples of their application in ethnobiology: traditional wisdoms in natural resources utilization	C1, C2	Ethnobiology as the unique principle of self system
III	Students will be able to understand and applied various ethnobiology methods in conducting research	Collection of qualitative and quantitative data; techniques; data analysis and synthesis; new methodology on socio-biology concepts.	C1, C2, C3	Methodology in ethnobiology
IV	Students will be able to understand various ingredients for medicinal plants for various diseases based on certain ethnic knowledge	Traditional knowledge of various Indonesian ethnicities in medicinal plants: examples from main ethnicities, examples of traditional ingredients for various diseases	C1, C2	Ethnopharmacology
V	Students will be able to understand various plants and their processing into colourings, aromatics, poisons, traditional food and spices. Examples form various ethnics.	Traditional knowledge of various Indonesian ethnicities in colourings plants, aromatics plants, plants for traditional food and poisonous plants: examples from each ethnic including various types of	C1, C2	Colourings, aromatics, traditional food, spices

Code	Core Competencies	Course Content Covered	Cognitive Level	Topics
		utilizations and ways of processing.		
VI	Students will be able to understand functions and uses of ethnobiological data in developing a bioregional-based area	Functions and uses of ethnobiological data in developing a bioregional-based area. Examples in Indonesia.	C1, C2, C3	Function and use of ethnobiology data for bioregional-based area development
VII	Students will be able to understand various types and functions of traditional home garden landscapes of various ethnics in Indonesia	Various types and functions of traditional home garden landscapes of various ethnics in Indonesia with examples	C1, C2	Type and function of traditional home garden from various Indonesian ethnicities
VIII	Students will be able to understand examples of various uses of plants by the Meratus Dayak tribe and their preservation strategies	Methodologies and various uses of plants by the Meratus Dayak tribe and their means of preservations	C1, C2	Example of plant resources utilization by the Maratus Dayak tribe community
IX	Students will be able to understand various traditional knowledge of various Indonesian ethnicities in utilizing animals	Traditional knowledge of various Indonesian ethnicities in utilizing animals for various purposes	C1, C2	Indonesian ethnozoology

Assessment Tools to Measure the Achievement of
Learning Outcomes in Forest Ethnobiology (KSH 332)

Code : KSH 332

Course : Forest Ethnobiology (332)

Credit : 2(2-0)

Code	Core Competencies	Learning Outcome	Bloom's Taxonomy	Assessment Tool(s)	Learning Activities
I	Students will be able to understand the meaning of ethnobiology, objectives, scope and linkages between disciplines	Students will be able to explain the meaning of ethnobiology, objectives, scope and linkages between disciplines	C1	Written examinations at different cognitive level (Mid-term exam).	Classroom lecture and discussion Reading text , looking for answers to stated learning objectives
II	Students will be able to understand how plants become rare and extinct, rarity criteria and impacts of humans	Students will be able to explain how plants become rare and extinct, rarity criteria and impacts of humans	C1, C2	Written examinations at different cognitive level (Mid-term exam).	Classroom lecture and discussion
III	Students will be able to understand and applied various ethnobiology methods in conducting research	Students will be able to explain and applied various ethnobiology methods in conducting research	C1, C2, C3	Written examinations at different cognitive level (Mid-term exam).	Classroom lecture and discussion Reading text , looking for answers to stated learning objectives
IV	Students will be able to understand various ingredients for medicinal plants for various diseases based on certain ethnic knowledge	Students will be able to explain various ingredients for medicinal plants for various diseases based on certain ethnic knowledge	C1, C2	Written examinations at different cognitive level (Mid-term exam).	Classroom lecture and discussion Reading text , looking for answers to stated learning objectives
V	Students will be able to understand various plants and their processing into colourings, aromatics,	Students will be able to explain various plants and their processing into colourings, aromatics,	C1, C2	Written examinations at different cognitive level (Mid-term exam).	Classroom lecture and discussion Reading text , looking for answers to stated

Code	Core Competencies	Learning Outcome	Bloom's Taxonomy	Assessment Tool(s)	Learning Activities
	poisons, traditional food and spices. Examples form various ethnics.	poisons, traditional food and spices. Examples form various ethnics.			learning objectives
VI	Students will be able to understand functions and uses of ethnobiological data in developing a bioregional-based area	Students will be able to explain functions and uses of ethnobiological data in developing a bioregional-based area	C1, C2, C3	Written examinations at different cognitive level (final exam	Classroom lecture and discussion Reading text , looking for answers to stated learning objectives
VII	Students will be able to understand various types and functions of traditional home garden landscapes of various ethnics in Indonesia	Students will be able to explain various types and functions of traditional home garden landscapes of various ethnics in Indonesia	C1, C2	Written examinations at different cognitive level (final exam	Classroom lecture and discussion Reading text , looking for answers to stated learning objectives
VIII	Students will be able to understand examples of various uses of plants by the Meratus Dayak tribe and their preservation strategies	Students will be able to explain examples of various uses of plants by the Meratus Dayak tribe and their preservation strategies	C1, C2	Written examinations at different cognitive level (final exam	Classroom lecture and discussion Reading text , looking for answers to stated learning objectives
IX	Students will be able to understand various traditional knowledge of various Indonesian ethnicities in utilizing animals	Students will be able to explain various traditional knowledge of various Indonesian ethnicities in utilizing animals	C1, C2	Written examinations at different cognitive level (final exam	Classroom lecture and discussion Reading text , looking for answers to stated learning objectives