

Tribhuvan University
Institute of Science and Technology
B. Sc Ethnobiology & Biodiversity conservation

Course Title: Ethnobiology & Biodiversity conservation
(Interdisciplinary course)

Course No. : B. Sc. Zool. 407

Nature of Course: Theory

Instruction Lectures: 75

Objectives of the Course:

At the end of the course, the students will be able to understand:

- what is ethnobiology.
- the significance of indigenous knowledge systems in preserving biological, cultural and linguistic diversity in the world.
- basic code of ethics as well as the field cum laboratory methods in ethnobiology.
- ethnobiology as a potential contributor to rural development.
- principles and applications of ethnobiology in human welfare.
- the untold reality of treating various diseases by the use of medicinal animals and plants based on indigenous knowledge system.
- the comparative advantage of collective property rights against personal property right.
- the role of indigenous peoples in nature conservation or biodiversity conservation.

Teaching materials required to fulfill the objectives are boards, charts, flex prints, overhead projector (OHP), power-point projector and other basic teaching materials prepared by teachers and as provided by the campuses.

Full Marks: 50

Pass Marks: 17.5

Year: IV

Ethnobiology

Unit	Sub-units	Description of content of the sub-unit (depth)	Lectures	Text/Ref. for the topics (for detail see the list of text & references)
Basics of ethnobiology (5 Lectures)	Definition, History, Civilization, Concept, Scope and Perspective	Definition, History, Past Conferences, Evolution, Civilization and Ethnobiology, Concept, Scope and Prospective of Ethnobiology, Coining of terms related to Ethnozoology, Ethnobotany and Ethnobiology.	5	Singh; Martin; Jain; UN Convention; WTO and TRIPS Agreement, 1995; ILO-convention 169
Multi-disciplinary and Basic Sub-disciplinary Relationship of Ethnobiology (7 Lectures)	Principal Multi-disciplinary Relationship of Ethnobiology, Basic Sub-disciples of Ethnobiology	Principal Multi-disciplinary Relationship of Ethnobiology: Ethnobotany, Ethnozoology, Ethnoecology, Ethnomycology, Ethnolichenology, Ethnoentomology, Ethnoichthyology, Ethnoherpetology, Ethnoornithology, Paleoethnobotany, Zooarchaeology, Ethnogenetics, Systematics, Anthropology, Linguistics etc. Basic Sub-disciples of Ethnobiology: Ethnozoology, Ethnobotany, Ethnoecology.	7	
Medico-ethnobiology: (5 Lectures)	Medic-ethnozoology, Medico-ethnobotany and Ethnopharmacology.	Medico-ethnozoology; Medico-ethnobotany; Food, Health and Medicine in Ethnobiology; Ethnopharmacology and the Marketing of Traditional Knowledge.	5	

Knowledge Systems in Ethnobiology: (3 Lectures)	Indigenous and International Knowledge System.	Indigenous (Traditional) Knowledge system and International (modern) Knowledge System.	3
Classification of Nature Across Cultures: (3 Lectures)	Ethnobiological Classification: Recognition, and Naming of Plants and Animals in Traditional Societies.	Ethnobiological Classification: Folk Taxonomy and Nomenclature, the Recognition, Classification, and Naming of Plants and Animals in Traditional Societies.	3
Status and Field of Ethnobiology: (7 Lectures)	Status and Field of Ethnobiology in the world and with special reference to Nepal.	Status of Ethnobiology in the World: European Continent, American Continent, Asian Continent, African Continent and Oceania. Field of Ethnobiology. Status of Ethnobiology with Special Reference to Nepal.	7
Code of Ethics, Ethnobiological Field Trips and Collections: (7 Lectures)	Code of Ethics in Ethnobiology, Practical Guidelines for Field Trips, and Collections.	Code of Ethics in Ethnobiology, Ethnobiological Guidelines for Field Visits, Research, Collections, Databases and Publications.	7
Principles of Ethnobiology: (6 Lectures)	Different Principles of Ethnobiology:	1. Principle of Prior Rights and Responsibilities 2. Principle of Self-Determination 3. Principle of Inalienability 4. Principle of Traditional Guardianship 5. Principle of Active Participation 6. Principle of Full Disclosure 7. Principle of	6

		Educated Prior Informed Consent 8. Principle of Confidentiality 9. Principle of Respect 10. Principle of Active Protection 11. Principle of Precaution 12. Principle of Reciprocity, Mutual Benefit and Equitable Sharing 13. Principle of Supporting Indigenous Research 14. Principle of The Dynamic Interactive Cycle 15. Principle of Remedial Action 16. Principle of Acknowledgement and Due Credit 17. Principle of Diligence		
Applications of Ethnobiology: (5 Lectures)	Various Applications of Ethnobiology:	(1) Sustainable Agriculture or Rural Development or Community Development, (2) Ethnobiology for Diversity Conservation, (3) Marginalized Land Use System, (4) Tropical Forest Management, (5) Ethnobiology for Eco-tourism , (6) Ethnobiology for Bioassay of Resources-Conservation and Biochemical Analysis, (7) Food and nutrition (8) Health-care and ethno-medicine (new bio-innovation), (9) Exchange and Trainings, (10) Religious studies, (11) Policy issues and Community rights.	5	
Research Design and Field cum Laboratory Methods in Ethnobiology: (5 Lectures)	Research Design and Field cum Laboratory Methods in Ethnobiology	Research Design, Field cum Laboratory Methods in Ethnobiology.	5	

Ethnobiology Research and Education: (5 Lectures)	Ethnobiology Research, Education, concerns and Priorities:	Ethnobiology Research and Development, Ethnobiology Education, Indigenous Peoples' Concerns and Priorities.	5	
Intellectual Property Rights in Ethnobiology: (5 Lectures)	Intellectual Property Rights in Ethnobiology, Personal Property Rights Vs. Collective Property Rights.	Intellectual Property Law. Patents, Trademarks and Copyright, Personal Property Rights vs. Collective property Rights.	5	
Conventional and Molecular Ethnobiology: (4 Lectures)	Concept of Conventional Ethnobiology & Molecular Ethnobiology. and Their Difference and Importance.	Concept of Conventional Ethnobiology & Molecular Ethnobiology. Difference between Conventional and Molecular Ethnobiology. Importance of Conventional and Molecular Ethnobiology related to Medico-research on Animals, Plants, Human and Microbes.	4	
Ethnobiology and Biodiversity Conservation: (7 Lectures)	Ethnobiology, Ethnography, the role of ethnic groups in biodiversity conservation.	Ethnobiology and Ethnography: A Case study of Raute Tribe in Nepal. Ethnobiology and Biological, Cultural and Linguistic Diversity. Ethnobiology and Biodiversity Conservation; The role of ethnic groups in biodiversity conservation initiatives; Indigenous peoples and nature conservation	7	
Future Directions and Careers in Ethnobiology: (1 Lectures)	Future Directions and Careers in Ethnobiology.	Future Directions and Careers in Ethnobiology.	1	

Suggested Readings:

ILO-convention 169: Indigenous and Tribal Peoples Convention, 1989

Jain, S.K. (1996): Ethnobiology in Human Welfare. Proceedings of IV International Congress of Ethnobiology held at Lucknow, India, during 17-21 November, 1994. Deep Publications, A-3/27A, D.D.A. Flats, Paschim Vihar, New Delhi-110063, India.

Martin, G.J. (1996): Ethnobotany: A Methods Manual. A 'People and Plants' Conservation Manual. Chapman & Hall, London, Weinheim, New York, Tokyo, Melbourne, Madras.

Singh, N.B. (1997): The Endangered Raute Tribe: Ethnobiology and Biodiversity. GLoRECA "ETHNOBIOLOGY", Kathmandu. United Nations Convention on Biological Diversity, June 5, 1992

WTO and the TRIPS Agreement, 1995

[Practical field visit for interested:

- (1) Making a report on a case of the medical uses of various medicinal animals by a particular ethnic group/s for the treatment of different diseases based on their indigenous knowledge system.
- (2) Making a report on a case of the medical uses of various medicinal plants by a particular ethnic group/s for the treatment of different diseases based on their indigenous knowledge system.
- (3) Make an in-depth documentation of various forms of indigenous knowledge systems found in a particular ethnic group related to the biodiversity conservation.]
