

Module Handbook

Conservation of Tropical Forest Resources

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By:

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Master of Forest Science Program

Faculty of Forestry

UNIVERSITAS

GADJAH MADA

2021

SEMESTER LEARNING PLAN

A. Identitas Mata Kuliah / Course Detail

1. Nama Kuliah/
Course Name : Conservation of Tropical Forest Resources
2. Kode/SKS/Sifat/
Code/Credits/Status : KTU 692/2/Wajib (*Compulsory*)
3. Prasyarat /
Prerequisite : -
4. Deskripsi Singkat /
Short Description :

Mata kuliah ini menjelaskan tentang filosofi konservasi sumber daya hutan yang mendasari penerapan konsep ekologi untuk konservasi SDH, konservasi keragaman hayati, klasifikasi dan valuasi sumber daya hutan, dan strategi konservasi berbasis Kawasan

This course explains the philosophy of forest resource conservation that underlies the application of ecological concepts to SDH conservation, biodiversity conservation, classification and valuation of forest resources, and area-based conservation strategies.
5. Tujuan
Pembelajaran /
Learning Objective :

Mahasiswa mampu menjelaskan prinsip-prinsip konservasi sumber daya hutan tropika dan menerapkannya pada konsep ekologi untuk konservasi sumber daya hutan tropika, mengkarakterisasi komponen keragaman hayati pada berbagai tingkat, mengidentifikasi dan menilai jasa ekosistem hutan dan menerapkan strategi untuk konservasi sumber daya hutan berbasis kawasan.

Able to explain the principles of tropical forest resource conservation and apply them to ecological concepts for the conservation of tropical forest resources, characterize the biodiversity component at various levels, identify and assess forest ecosystem services and implement strategies for forest resource conservation
6. Dosen Pengampu
Matakuliah /
Lecturers : LIES RAHAYU WIJAYANTI FAIDA, MUCH. TAUFIK TRI HERMAWAN, SENA ADI SUBRATA, HERO MARHAENTO
7. Capaian
Pembelajaran
Matakuliah / Course :
Learning Outcome
(CPMK/CLO)

Kode / Code	Deskripsi / Description	PLO/SO/ELO/CPL/LG
CLO 1	menjelaskan prinsip-prinsip konservasi sumber daya hutan dan menerapkan konsep ekologi explain the principles of forest resource conservation and apply ecological concepts	PLO 1,PLO 3
CLO 2	mampu mengkarakterisasi komponen keragaman hayati padaberbagai tingkat able to characterize components of biodiversity at various levels	PLO 3
CLO 3	mampu mengidentifikasi dan menilai jasa ekosistem hutan able to identify and value forest ecosystem services	PLO 4
CLO 4	mampu menerapkan strategi untuk konservasi sumber dayahutan berbasis kalasan able to apply strategies for kalasan-based forest resource conservation	PLO 5

PLO / PI Details

PLO1	Values and Principles	possess a set of universal and fundamental values and principles: universal ethics, patriotism and world peace, social and environmental sensitivity, pluralism and fair play,and the rule of law.
PLO 3	Knowledge (Theory, Philosophy, and Natural Resources)	<i>Able to compare and criticize the theory, philosophy, and design of sustainable development of forest and natural resources, considering the complexity of global issues.</i>
PLO 4	Knowledge (Criticise science, Knowledge, Technology and Art of Forestry)	Able to connect and criticise science, knowledge, technologyand art of forestry based on ecosystem and landscape, covering silviculture, forest management, forest products technology, and natural resource conservation.
PLO 5	Knowledge (Analyse Comprehensively in theSpecific Fields)	<i>Able to analyze comprehensively updated issues in the specific fields of silviculture, forest management, forest products technology, or forest resource conservation, and to recommend possible solutions based on difined problems.</i>
PLO 1	Value (interest of peoplebased on Pancasila)	<i>Have high academic achievement with an awareness of theinterests of people and nation based on Pancasila values</i>

B. Topik Perkuliahan / Course Materials

Bahasan / Main Discussion	Estimasi Waktu / Estimate dTimes (Hour)	Kompetensi (Course Learning Outcomes)
Principles of conservation of tropical forest resources	2	CLO 1
Biology Conservation and sustainability of tropical forests	2	CLO 1
Conservation ethics and sustainable forest development	2	CLO 1
Ecosystem-level biodiversity conservation	2	CLO 2
Species-level biodiversity conservation	2	CLO 2
Gene-level biodiversity conservation (1)	2	CLO 2
Gene-level biodiversity conservation (2)	2	CLO 2
Identification of tropical forest ecosystem services	2	CLO 3
Value of tropical forest ecosystem services (1)	2	CLO 3
Value of tropical forest ecosystem services (2)	2	CLO 3
International and national conservation strategies	2	CLO 4
Categorization of international and national conservation areas	2	CLO 4
Conservation policy	2	CLO 4

C. Rencana Asesmen / Assesment Plan

CO/CPMK	Tipe / Type	Deskripsi / Description	Persentase / Percentage	PLO/SO/ELO/CPL/LG
CLO 1	Midterm Exam	Question 1	100	PLO 1
CLO 2	Midterm Exam	Question 1	100	PLO 3
CLO 3	Final Exam	Question 2	100	PLO 4
CLO 4	Final Exam	Question 2	100	PLO 5

D. Referensi / References

1. Abdulbasit Hussein. 2021. Links Between Biodiversity, Ecosystems Functions, and Services: Systematic Review. International Journal of Ecotoxicology and Ecobiology 2021; 6(4): 70-79.
2. Cutter, Susan L, Renwick, William H, 2004, Exploitation, Conservation Preservation: A Geographic Perspective on Natural Resource Use. 4th edition. John Willey and Sons, Inc
3. Freyfogle E.T. 2006. Why conservation is failing and how it can regain ground. Yale

University Press New Haven and London.

4. Groom, M. J., Meffe, G. K., Carroll, C. R., & Andelman, S. J. (2006). Principles of conservation biology (No. Siri) i9780878935185). Sunderland: Sinauer associates.
5. IUCN World Commission on Protected Areas with the assistance of the World Conservation Monitoring Centre. Guidelines for Protected Area Management Categories.
6. Keraf, A.S. 2002. Etika Lingkungan, Penerbit Buku Kompas, Jakarta.
7. Koorders, S.H. Konservasi Alam (Bab I, terjemahan dari TECTONA: Deel XIII 13e Jaargang 1920.)
8. MacKinnon, J dan K, 1993. Pengelolaan Kawasan di lindungi di Daerah Tropika. Gadjah Mada University Press. Yogyakarta.
9. Montagnini F. & C.F. Jordan. 2005. Tropical Forest Ecology: The Basis for Conservation and Management. Springer-Berlin, Heidelberg.
10. Roy Naines Young and Marion Potschin. 2005. The links between biodiversity, ecosystem services, and human well-being. Book Chapter (www.naturalcapitalproject.org/toolbox.html#InVEST)

E. Rencana Kegiatan Pembelajaran Mingguan (RKPM) / *Weakly Teaching Plan*

Pertemuan Ke / Week	Tujuan Ajar / Learning Objective	Topik / Topic	Media Ajar / Teaching Media	Metode Assessment / Assessment Method	Metode Ajar / Teaching Method	Aktivitas Mahasiswa / Student Activity	Aktivitas Dosen / Lecturer Activity	Sumber Ajar / Learning Resources
1	Learning Contract:	Tropical forest resource philosophy	Material explanation in the classroom	Answer and question session	Classroom, LCD, projector	discussion, learning journal	preparing materials PowerPoint, explaining lectures	1, 2
2	Understading the natural resources conservation	- Definitions of resources and natural resources - Types of natural resources and their utilization - Destruction of natural resources and the birth of global and national conservation - The ecological and economic values of natural resources	material explanation in the classroom	Giving assignment : journal review	Classroom, LCD, projector	discussion, learning journal	preparing materials PowerPoint, explaining lectures	1, 2

<i>Pertemuan Ke/Week</i>	<i>Tujuan Ajar / Learning Objective</i>	<i>Topik / Topic</i>	<i>Media Ajar / Teaching Media</i>	<i>Metode Assesment / Assesment Method</i>	<i>Metode Ajar / Teaching Method</i>	<i>Aktivitas Mahasiswa / Student Activity</i>	<i>Aktivitas Dosen / Lecturer Activity</i>	<i>Sumber Ajar / Learning Resources</i>
3	Understanding Milestone of natural resource conservation movement	- History of the global and national conservation movement - Milestone of conservation movement - Environmental ethics	Group discussion	Answer and question session	Classroom ,LCD, projector	discussion ,learning journal	preparing materials PowerPoint, explaining lectures	3
4	Understanding The concept of Natural Resources ownership:	Tragedy of the common	material explanation in the classroom	Answer and question session	Classroom ,LCD, projector	discussion ,learning journal	preparing materials powerpoint, explaining lectures	1,2
5	Understanding Conservation Strategies	- Global conservation strategies - National conservation strategies - Local conservation strategies	aterial explanation in the classroom	Giving assignment : journal review	Classroom ,LCD, projector	discussion ,learning journal	preparing materials powerpoint, explaining lectures	3
6	Understanding Biodiversity Conservation:	- Definition and categories of biodiversity - Values, benefits, and threats to biodiversity - Biodiversity conservation strategies	Group discussion	Answer and question session	Classroom ,LCD, projector	discussion, learning journal	preparing materials powerpoint, explaining lectures	3
7	-	Midterm Exam	Summative test (PAN)	Writing exam	Classroom	discussion ,learning journal	preparing materials powerpoint, explaining lectures	1, 2, 3

<i>Pertemuan Ke/Week</i>	<i>Tujuan Ajar / Learning Objective</i>	<i>Topik / Topic</i>	<i>Media Ajar / Teaching Media</i>	<i>Metode Assesment / Assesment Method</i>	<i>Metode Ajar / Teaching Method</i>	<i>Aktivitas Mahasiswa / Student Activity</i>	<i>Aktivitas Dosen / Lecturer Activity</i>	<i>Sumber Ajar / Learning Resources</i>
8	Understanding Species Conservation:	- Definition of species - Species extinction and their causal factors	Material explanation in the classroom	Answer and question session	Classroom ,LCD, projector	discussion, learning journal	preparing materials powerpoint, explaining lectures	3
9	Understanding Species Conservation:	The IUCN and CITES species categories Species protection policy in Indonesia	Material explanation in the classroom	Answer and question session	Classroom ,LCD, projector	discussion, learning journal	preparing materials powerpoint, explaining lectures	4
10	Understanding Humans and Forests Interaction:	Humans as the main actors in forest conservation	Material explanation in the classroom	Giving assignment : journal review	Classroom ,LCD, projector	discussion, learning journal	preparing materials powerpoint, explaining lectures	4, 5
11	Understanding Contemporary Conservation:	Actualization of student ideas/presentations and discussions	Group discussion	Answer and question session	Classroom ,LCD, projector	discussion, learning journal	preparing materials powerpoint, explaining lectures	4, 5
12	-	Final exam	Summative test(PAN)	Writing exam	Classroom	discussion, learning journal	preparing materials powerpoint, explaining lectures	1, 2, 3, 4, 5