

Course Specification

— (Postgraduate Programs) عبد المحسن بن أبي طالب عزيمه بالمرحوميتي الناصر

Course Title: Sustainable Development of Natural Resources

Course Code: BIO-6028

Program: Master of Science in Applied Biology (Biodiversity, Wildlife Conservation & Management)

Department: Biology عبد المحسن بن أبي طالب عزيمه بالمرحوميتي الناصر

College: Science

Institution: Imam Mohammad Ibn Saud Islamic University

Version: 1

Last Revision Date:



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عبد المحسن بن أحمد العنزي ربيع الله رحمتي الناصر

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A. General information about the course:

1. Course Identification:

1. Credit hours: 2(Lecture 2+ Lab 0)

2. Course type

A. ☐ University ☐ College ☐ Department ☒ Track

B. ☐ Required ☒ Elective

3. Level/year at which this course is offered: (Undetermined level)

4. Course general Description:

Natural resources are central to human and their over-exploitation harms the health of ecosystems and the well-being of people. Over time and with progressive industrialization, resource use increased. This risk of resource depletion demonstrates the need to regulate natural resource use to better preserve resources and their ecosystems. A vast array of norms, institutions, and actors influence decisions on natural resources, which is why we speak of natural resources sustainability.

5. Pre-requirements for this course (if any):

Environmental and natural resources protection.

6. Co-requisites for this course (if any):

7. Course Main Objective(s):

The main objective is to see natural resource use and management from a socio-ecological perspective. The main focus is on land, water and biological resources in the light of climate change and variability. Students will be able to critically examine the current use/misuse of natural resources in relation to development. Students will acquire the necessary knowledge and concrete skills to understand physical processes and to analyse interactions between humans and natural systems. The course will prepare the student to use this knowledge for promoting sustainable use and management of natural resources in a professional role.

2. Teaching Mode: (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	-	100%
2	E-learning		



No	Mode of Instruction	Contact Hours	Percentage
3	Hybrid - Traditional classroom - E-learning	-	-
4	Distance learning		

3. Contact Hours: (based on the academic semester)

No	Activity	Contact Hours
1.	Lectures	30
2.	Laboratory/Studio	
3.	Field	
4.	Tutorial	
5.	Others (specify)	
	Total	30

B. Course Learning Outcomes, Teaching Strategies, Assessment Methods

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
1.0	Knowledge and understanding			
1.1	Integrated understanding of ecological, economic, cultural, political and social aspects of natural resources including their use, misuse and management.		Two credits weekly lectures, and discussion	- Quizzes - Presentations - Assignments - Written exams
1.2	Knowledge about sustainability including its perspectives and approaches to natural resources use.		Tow credits weekly lectures, and discussion	- Quizzes - Presentations - Assignments - Written exams
1.3	Capacity to analyse general, specific and sustainable uses of natural resources, at present and in the long term.		Two credits weekly lectures, and discussion	- Quizzes - Presentations - Assignments - Written exams

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
2.0	Skills			
2.1	Employ key concepts, theories and methods relating to natural resource use and management.		Two credits weekly lectures, and discussion	- Presentations - Assignments - Written exams
2.2	Apply interdisciplinary knowledge, understanding and problem-solving ability, to identify basic natural resource problems affecting development.		Two credits weekly lectures, and discussion	- Presentations - Assignments - Written exams
2.3	Formulate research questions about the relationship between natural resource use, development and sustainability.		Two credits weekly lectures, and discussion	- Presentations - Assignments - Written exams
3.0	Values, autonomy, and responsibility			
3.1	Ability to make assessments in the field of sustainable use and management of natural resources, taking into account relevant social and scientific aspects, and demonstrate an awareness of ethical aspects of research and development.		Group discussions	- Presentations - Reports
3.2	Ability to critically, independently and creatively carry out advanced tasks.		Group discussions	- Presentations - Reports

C. Course Content:

No	List of Topics	Contact Hours
1.	Definitions of sustainability and natural resources	2
2.	Renewal and nonrenewable natural resources	2
3.	Nature and pattern of conservation of natural resources	2
4.	Conservation methods- indigenous vs. scientific	2
5.	Importance of the sustainable use of natural resources	3

6.	Challenges in natural resources and environmental conservation	2
7.	Contribution of sustainable natural resources to development	2
8.	Sustainable ecosystems management	3
9.	Regulations and laws on natural resources use	2
Total		30

D. Students Assessment Activities:

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Midterm exam-1	5 th week	20%
2.	Midterm exam-2	10 th week	20%
3.	Assignments, presentations, attendance, data search, participation	Throughout the course duration	20%
4.	Final exam	16 th week	40%
5.	Total		100%

*Assessment Activities (i.e., Written test, oral test, oral presentation, group project, essay, etc.)

E. Learning Resources and Facilities:

1. References and Learning Resources:

Essential References	1- Linda Hantrais, Ruth Kattumuri, Ashley Thomas Lenihan, 2020. Sustaining Natural Resources in a Changing Environment. Publisher: Routledge (Taylor & Francis Group), ISBN 9780367663773, 142 pages. 2- Celine Tan, Julio Faundez, 2017. Natural Resources and Sustainable Development: International Economic Law Perspectives. Publisher: EE Elgar online, ISBN: 978 1 78347 837 8, 352 pages. 3- Daniel Dela Torre, 2017. Sustainable Development of Natural Resources. Publisher: Society Publishing, ISBN-10: 1773612840, 313 pages. 4- Hermann Waibel, David Zilberman, 2007. International Research on Natural Resource Management: Advances in Impact Assessment. Publisher: CABI, ISBN-10: 1845932838. ISBN-13: 978-1845932831, 270 pages.
Supportive References	1- Margaret Robertson, 2021. Sustainability: Principles and Practice. Publisher: Routledge (Taylor & Francis Group), ISBN 9780367365219, 554 pages.

	2- Alfred Endres, 2012. Natural Resources and Sustainable Development. Publisher: Cambridge University Press.
Electronic Materials	1- Harry Lehmann, 2022. Sustainable Development and Resource Productivity: The Nexus Approaches. Publisher: Routledge (Taylor & Francis Group), ISBN 9780367612269, 386 pages. https://www.routledge.com/Sustainable-Development-and-Resource-Productivity-The-Nexus-Approaches/Lehmann/p/book/9780367612269 2- Ashwani Kumar Dubey, 2015. Sustainable Development of Natural Resources and Wildlife Conservation. Publisher: Daya Publishing House. ISBN-10: 9789351243281. https://www.abebooks.com/9789351243281/Sustainable-Development-Natural-Resources-Wildlife-9351243281/plp
Other Learning Materials	-

2. Educational and Research Facilities and Equipment Required:

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	Classroom
Technology equipment (Projector, smart board, software)	Projector, smart board
Other equipment (Depending on the nature of the specialty)	

F. Assessment of Course Quality:

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	Students	Indirect
Effectiveness of students assessment	Faculty	Direct
Quality of learning resources	Faculty	Direct
The extent to which CLOs have been achieved	Faculty	Direct
Other		

Assessor (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify))

Assessment Methods (Direct, Indirect)

G. Specification Approval Data:

COUNCIL /COMMITTEE	BIOLOGY DEPARTMENT COUNCIL
REFERENCE NO.	23
DATE	23/8/1445

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