Course Specification

(Bachelor)

Course Title:	*Natural reserves (conservation and Management)*
Course Code:	*BIO1408*
Program:	*Bachelor of Science in Biology*
Department:	*Department of Biology*
College:	*Faculty of Science*
Institution:	*University of Tabuk*
Version:	***Course Specification Version Number***
Last Revision Date:	*September 2023*

Table of Contents

A. General information about the course:

1. Course Identification

1. Credit hours:					
3 Credit (3 Hours - Theory).					
2. Course type					
A.	☐University	☐ College	☒ Department	☐Track	☐Others
B.	☐ Required		☒ Elective		
3. Level/year at which this course is offered: (7th Level / 4th year)					
4. Course general Description:					
This course will help students articulate and evaluate policies that attempt to balance human needs with the sustainability of land and water resources for which recreation is one of numerous uses. The focus will be on natural reserves, wilderness, public lands and water resources. In addition, the course will introduce the benefits of indigenous remnant vegetation, plant identification: plant reviews, Basic Ecology and its application, Constituents of an ecosystem: biotic and abiotic. Climate: soil: vegetation interrelationships. Classification of animals and Plant by using keys. Soil management in Natural reserves, Erosion, Soil degradation and causes, types and control. Sources of salinity and control methods. Plant maintenance and plant selection in nature parks. Natural gardening techniques, Disposing of waste, Composting, Planting procedure. Design of Nature Parkers and machinery for park maintenance.					
5. Pre-requirements for this course (if any):					
Principles of Ecology (BIO1202).					
6. Co-requirements for this course (if any):					
None					
7. Course Main Objective(s):					
At the end of this course the students should be able to: - Describe methods of sustain ecological diversity. - Show positive attitude towards natural reserves and parks management, land rehabilitation, conservation, or related industries. - Know how to offer resources for upcoming generations. - Make people aware regarding management of wilderness areas, coastlines, national parks, camp and picnic grounds. - Improve the quality of living of all organisms.					

2. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	3	100%
2	E-learning		
3	Hybrid • Traditional classroom • E-learning		
4	Distance learning		

3. Contact Hours (based on the academic semester)

No	Activity	Contact Hours
1.	**Lectures**	45
2.	**Laboratory/Studio**	
3.	**Field**	
4.	**Tutorial**	
5.	**Others (specify)**	
Total		**45**

B. Course Learning Outcomes (CLOs), Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
1.0	**Knowledge and understanding**			
1.1	Explain the role of natural reserves in the balance between human needs with the sustainability	K1	-Lectures. -Class discussion. -Group discussion. -Self-learning. -Case studies.	-Quizzes -Periodic exam. -Final examination. -Class discussion and participation. - Homework (Problem-solving).
1.2	Describe soil management in	K2	-Lectures. -Class discussion.	-Quizzes

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
	protected areas, including erosion, salinity, soil degradation and chemical residues		-Group discussion. -Homework assignments. - Self-learning. -Case studies.	-Periodic exam. -Final examination. -Class discussion and participation. - Homework (Problem-solving).
1.3	Recognize nature park design procedures.	K2	-Group discussion. -Homework assignments. - Self-learning. -Case studies.	-Quizzes -Periodic exam. -Final examination. -Class discussion and participation. - Homework (Problem-solving).
2.0	**Skills**			
2.1	Apply design for a nature park, or a section within a nature park.	S1	-Lectures. -Short essay -Class discussion. -Group discussion. -Brainstorming. -Filed trip.	-Quizzes -reports -Final examination. -Class discussion and participation. - Homework (Problem-solving).
2.2	Develop management strategies for the	S2,S5	-Lectures. -Short essay	-Quizzes -reports

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
	control of weed problems in a natural reserve, and be able to rehabilitation of degraded sites in a nature park.		-Class discussion. -Group discussion. -Brainstorming. -Filed trip.	-Final examination. -Class discussion and participation. - Homework (Problem-solving).
3.0	**Values, autonomy, and responsibility**			
3.1	Illustrate human responsibility toward the environment and the significance of incorporating environmental ethics into the daily routine.	V2	-Short essay -Class discussion. -Group discussion. -individual or group presentation.	-Class discussion and participation. -Homework (Problem-solving).
3.2	Work with groups and different stakeholders in protected areas	V1	-Short essay -Class discussion. -Group discussion. -individual or group presentation.	-Class discussion and participation. -Homework (Problem-solving).

C. Course Content

No	List of Topics	Contact Hours
1.	Introduction to natural reserves (protected areas)	3
2.	The history of natural reserves (protected areas)	3
3.	Values and Benefits of Protected Areas	3

4.	Managing Threats	3
5	Soil management	3
6.	Plant management	3
7.	Turf management	3
8.	Pest and Disease management	3
9.	Managing Resource Use and Development	3
10.	Climate Change and Protected Areas	3
11.	Design of natural reserves (case study 1)	3
12.	Design of natural reserves (case study 2)	3
13.	Design of natural reserves (case study 3)	3
14.	Rehabilitation -problems and solutions	3
15.	Economic issues related to natural reserves	3
Total		**45**

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Quizzes	During whole teaching period	10
2.	Homework (Problem-solving)	3 to 13	5
3.	Class Participation	During whole teaching period	5
4.	1st Periodic exam	6	20
5.	2nd Periodic exam	10	20
6.	Final Theoretical Exam	17	40

*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	- Protected Area Governance and Management. Book by Michael Lockwood, Ashish Kothari, Sue Feary, Ian Pulsford 2015.

	- Arguments for protected areas: multiple benefits for conservation and use. Book by Stolton, Sue; Dudley, Nigel.2010.
Supportive References	- The performance and potential of protected areas in Nature. Article by James E. M. Watson; Nigel Dudley; Daniel B. Segan; Marc Hockings, 2014. - Guidelines for Applying Protected Area Management Categories. Document by Nigel Dudley 2008. IUCN. Gland, Switzerland.
Electronic Materials	- Borrini-Feyerabend, G., N.Dudley,T, Jaeger,B. Lassen,N. Pathak Broome,A. Philips and T. Sandwith (2013). Governance of Protected Areas: From understanding to action. Best Practice Protected Area Guidelines Series No 20, Gland, Switzerland.
Other Learning Materials	http://www.iucn.org/publications

2. Required Facilities and equipment

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	Well-equipped classrooms that accommodate a sufficient number of students.
Technology equipment (projector, smart board, software)	Multimedia projectors and smart boards.
Other equipment (depending on the nature of the specialty)	Electronic resources and transportations means for field trips.

F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	- Students. - Faculty members.	Indirect & direct: - Questionnaires. - Meetings.
Effectiveness of Students assessment	- Quality and development committee. - Department chair.	- Course report. - Program annual report.
Quality of learning resources	- Plan and program committee. - Students. - Staff members.	Indirect & direct: - Questionnaires. - Meetings. - Reports.

Assessment Areas/Issues	Assessor	Assessment Methods
The extent to which CLOs have been achieved	- Quality and development committee. - Peer Reviewer. - Program leaders.	Indirect & direct: - Questionnaires. - Meetings. - Reports.
Other		

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

Assessment Methods (Direct, Indirect)

G. Specification Approval

COUNCIL /COMMITTEE	PROGRAMS AND STUDY PLANS COMMITTEE
REFERENCE NO.	
DATE	SEPTEMBER 2023