SULTAN QABOOS UNIVERSITY

COURSE OUTLINE

PROGRAM: bachelor of science in nre

1. Course Code	NREC 3011	
2. Course Title	Economics of Fisheries Management	
3. Credits	3 CH , 12 CP, 6 ECTS	
4. Pre-requisite Course (s)	CAMS 2003	
5. Co-requisite Course (s)	Nil	
6. Equivalent Course (s)		
7. Course Category (*Specify either as* Elective *or* Requirement *and appropriate level: College, Department, etc.)*	☐ University Requirement	☐ University Elective
	☐ College Requirement	☐ College Elective
	☒ Department Requirement	☐ Department Elective
	☐ Other (specify):	
8. Course Owner	College:	Department:NRE
9. Course Type	Lecture	
10. Language of Instruction	English	

11. Course Description

It provides students with the key economic concepts and analytical techniques that are commonly used in fisheries management. It introduces students to the key dimensions of sustainable development and the basic components of fishery system.
It provides an overview of the fisheries sector in Oman along with the national strategic plan to reflect the importance of the sector from an economic, social and environmental point of view. Throughout the course national data and statistics have been updated to reflect the most recent available information.
It introduces students to the concept of property rights, externalities, market failure, risk and uncertainty and their implications for fisheries management. It also develops a foundation of bio-economic model of fisheries management in which both biological and economic factors are considered. It prepares students to analyze and compare various management measures (i.e. input and output measures, technical measures etc.) management approaches (i.e. adaptive management, co-management etc.) and policy options for fisheries management. It introduces students to pertinent issues and challenges involved in the development of aquaculture sector in Oman, and to prospective linkages between wild fisheries and aquaculture.

12. Teaching/Learning Strategies

In each session concepts and arguments are introduced in a progressive manner and logical linkages between concepts are made where appropriate. Concepts and arguments are supported by appropriate local and regional examples that students are acquainted with and facilitated by class discussions. This is to engage students with the material and encourage students' active engagement in learning. During the course data and information are gathered from various government agencies in Oman, and are presented and used as a basis of classroom discussions to emphasize the relevance of the material and enhance students' learning. Case study is also presented to explain fisheries issues in a real-life context. The assignments (in the form of class tests) and exams are designed to assess the conceptual, analytical, and problem-solving skills.

13. Evaluation Methods

The course will be graded out of 100 points. The grade assignments from the final mark will be as follow:

A) The first type of evaluation is class tests. They may include a combination of multiple choices, true or false, conceptual, descriptive, analytical questions, and mathematical exercise.

B) A mid-term written examination

C) A final written examination covering all topics covered in the class As per SQU regulation, the final examination will count for >40% of the final mark (50 points).

14. Required Course Core Material

The lecture notes, materials from the following texts and additional readings from peer reviewed journals will constitute the required study material for this course.

Cunningham, S. Dunn, M, R. and Whitmarsh, D. (1985). Fisheries Economics: An Introduction. Mansell Publishing Limited, London.

Anderson, L. G. (2004). The Economics of Fisheries Management. Blackburn Press. New Jersy.

During the course, lecture notes and additional readings will be distributed.

15. Matching Course Objectives with the Program Outcomes and with SQU Graduate Attributes

* ***Click here** to view a list of action verbs use in developing objectives*

SQU Graduate Attributes

A. SQU graduates should be able to:	**B. SQU graduates possess**	**C. SQU graduates should relish** good citizenship qualities, conscious of their national identity and socially responsible, engage in community affairs and mindful of contemporary issues.
1. apply the knowledge and skills relevant to the specialization 2. communicate effectively and use information and communication technologies 3. critically analyze complex information and present it in simple legible manner	1. interpersonal communication skills and alignment with culture of international labour market to assist them in practical life and in living successfully 2. skills and motivation for independent learning and engagement in lifelong learning and research 3. work ethics and positive values, and enjoy intellectual independence and autonomy 4. teamwork skills and display potential leadership qualities	

#	Course Learning Objective	Relevant Program Outcome(s)	Applicable Attribute(s)
1.	Identify and describe various goals and objectives of fisheries management.	Demonstrate in-depth knowledge on theory and analytical methods in natural resource economics and business	Knowledge
2.	Identify the structure, the key components, and interactions between fishery sub-systems.	Demonstrate in-depth knowledge on theory and analytical methods in natural resource economics and business	Knowledge
3.	Explain the key instruments, elements, concepts and major issues associated with the management of fisheries resources.	Demonstrate in-depth knowledge on theory and analytical methods in natural resource economics and business	Knowledge
4.	Describe the key components of a basic bio-economic model and interpret model results with	Demonstrate in-depth knowledge on theory and	Knowledge & Skills

	policy implications.	analytical methods in natural resource economics and business	
5.	Critically appraise the economic aspects of fisheries management measures and approaches	The ability to identify, formulate, analyse and solve economics and business problems	Knowledge & Skills
6.	Suggest a process for the allocation of fisheries resources.	Demonstrate in-depth knowledge on theory and analytical methods in natural resource economics and business	Knowledge & Skills
7.	Identify key issues and challenges associated with aquaculture development.	The ability to identify, formulate, analyse and solve economics and business problems	Knowledge & Skills
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			

16. Student Responsibilities

It is the student's responsibility to know and comply with all University Academic Regulations relevant to participation in this course. These regulations specifically include the Attendance and Student Academic Misconduct policies.

For attendance, it is the student's responsibility to be punctual and to attend all classes.

Students are expected to perform their work with honesty and avoid any academic misconduct, which is defined as the use of any dishonest or deceitful means to gain some academic advantage or benefit. This can take many forms, including but not limited to, the following: copying, plagiarism, collusion and forging documents. For full details please refer to the Undergraduate Academic Regulations and to the Student Academic Misconduct Policy.

Additionally, this course requires that you:

COURSE INFORMATION			
Course Code	NREC 3011	**Course Title**	Economics of Fisheries Management
Year/Semester	Fall	**Section**	10
Day, Time, and Place	Sunday 14:15-15:35 Tuesday 14:15-15:35 Room A08 (Changes Depending on Master Timetable)		

Course Coordinator	Shekar Bose		
Office Location	CAMS	**Office Hours**	Sunday 12:00 -13:00; Tuesday 12:00-1:00 or by appointment
Office Ext.	3680	**Email**	Sbose@squ.edu.om

Tentative Schedule

Week	Lecture/Topic	Material to be Covered	Assignment /Exam	Weight (%)
1	Course overview and justification Review of key economic concepts applicable to fisheries			
2	Review of key economic concepts applicable to fisheries, National strategic plan, Fisheries sector in Oman: Key characteristics of small-scale fisheries and socio-economic significance			
3	Fisheries management goals and objectives. The concept and dimensions of sustainable development, Property rights in fisheries		Assignment 1	10
4	Use of fisheries resources and its regulations. Review of management tools: Input vs. output controls			
5	Management Implications of management tools: Input vs. output controls			
6	Gordon-Schaefer Model (basic bio-economic model)			
7	Gordon-Schaefer Model (basic bio-economic model)		Mid-term	25%
8	Quota Management Systems: Individual Transferable Quota (ITQs)			
9	Allocation of resources and its mechanisms			
10	Costs of fisheries management			
11	Technological development in			

	fisheries and its economic implications			
12	Risk and uncertainty in fisheries		Assignment 2	15%
13	Economic aspects of resource management approaches (i.e. Co-management)			
14	Economics of aquaculture development, challenges and opportunities			
15	Revision		Final	50%

APPENDIX A: INSTRUCTORS OF MULIPLE SECTIONS

Section	Instructor	Day, Time, and Location	Office Location and Extension	Email	Office Hours

APPENDIX B: ADDITIONAL INFOMARION