جامعة البحرين
University of Bahrain
مركز ضمان الجودة والاعتماد الأكاديمي
Quality Assurance and Accreditation Center

Academic Course Specification Form

استمارة توصيف المقرر الأكاديمي

القسم الخاص بالطالب
Section Concerning the Student

1. Course Code:	BIOLS481	**1. رمز المقرر:**
2. Course Title	Fish and Fisheries	**2. اسم المقرر:**
3. College:	Science	**3. الكلية:**
4. Department:	Biology	**4. القسم:**
5. Academic Program:	Bachelor of Science in Biology	**5. البرنامج الأكاديمي:**
6. Course Credits:	2-3-3	**6. عدد الساعات المعتمدة:**
7. Course NQF Level:	8	**7. مستوى المقرر وفقا للإطار الوطني للمؤهلات:**
8. Notional Hours:	119	**8. عدد الساعات الافتراضية:**
9. NQF Credits:	12	**9. عدد الساعات المعتمدة للمقرر وفقا للإطار الوطني للمؤهلات:**
10. European Credit Transfer System (ECTS) credits	6	**10. عدد الساعات للمقرر بالنظام الأوروبي**
11. Prerequisite:	BIOLS234	**11. المتطلب السابق للمقرر:**
12. Lectures Timing & Location:		**12. وقت المحاضرة ومكانها:**

13. General Mode of Teaching and Learning	Traditional تقليدي	**13. النمط العام للتعليم والتعلّم:**
14. Course Coordinator:		**14. منسّق المقرر:**
15. Course Instructor:		**15. مدرّس المقرر:**
16. Office Hours and Location:		**16. الساعات المكتبية ومكانها:**
17. Instructor's Email:		**17. البريد الإلكتروني لمدرّس المقرر:**
18. Academic Year:		**18. السنة الأكاديمية:**
19. Semester:		**19. الفصل الدراسي:**

20. Textbook(s):	**20. الكتب الدراسية للمقرر:**
TEXTBOOK OF FISH BIOLOGY AND FISHERIES (HB 2023) Harris D. RECENT TECHNOLOGIES IN FISH AND FISHERIES by Mr.K Veeranjaneyulu, G. Krishnaveni , N. Veerabhdr, 2024	
1. References:	**21. المراجع:**
Fishes (an introduction to Icthyology by Moyle, P.B., and Cech, J.J., 2000 Biology of fishes by Bone, Q and Moore, R.H., 2008 Other references on fishes are available in the library	
1. Other Learning Resources Used (e.g. e-learning, field visits, periodicals, software, etc.):	**22. مصادر التعلّم الأخرى (مثال: التعلّم الإلكتروني، زيارات ميدانية، دوريات، برمجيات، إلخ....)**
field trips, project work and presentation, team discussion and audiovisuals Online access to the course material and to the instructor are open throughout the semester Educational DVDs and Videos provided online or during the lab sessions Students' skills in self-learning and research ability are therefore enhanced through the active use of these facilities. One to one discussion on individual projects is facilitated the use of databases such as Fishbase for identification and classification of finfishes and shell-fishes	
2. Course Description (as published in the College Catalogue):	**23. توصيف المقرر (حسب ما ورد في دليل الكلية):**
Forms and structures, Feeding, respiration, hydro mineral balance and growth, and reproductive biology. Behavior of fishes; fish parasites; evolution and classification; ecology and zoo geography. History of fisheries, fish farming and the Arabian Gulf fish and fisheries.	
3. Course Intended Learning Outcomes (3 to 5 CILOs):	**24. مخرجات التعلّم للمقرر (CILOs) (3 إلى 5 مخرجات تعلّمية):**

1. Analyze the ecology, ecosystem, and classification of fisheries resources.
2. Identify the general biology of fisheries resources, with emphasis on fin-fishes, shell-fishes, and exploited species.
3. Investigate fish behavior and communication, fishing methods, and the effects of fishing.
4. Discuss fisheries resources and management in Bahrain or the Arabian Gulf through planning and executing a project and presentation using IT skills.
5. Evaluate fin-fish and shell-fish aquaculture management, economic advantages, and impacts on the marine environment; fisheries management.

4. Course Assessment Percentages (as per Regulations of Study and Examination at the University of Bahrain):

4) أساليب التقييم ونسبها المئوية (بحسب نظام الدراسة والامتحانات في جامعة البحرين):

Assessment **التقييم**	**Type** **النوع**	**Percentage** **النسبة**	**Assessment Date** **تاريخ التقييم**
Midterm-I	Individual فردي	*15%*	
Midterm-II	Individual فردي	*15%*	
Lab exam- I	Individual فردي	*15%*	
Poster presentation	Individual فردي	*15%*	
Final	Individual فردي	*40%*	
Total	**100%**		

5. Description of Topics Covered

5) وصف الموضوعات التي ينبغي تناولها:

Topic Title (e.g. chapter/experiment title) **الموضوع**	***Description*** **التفصيل**
Ecology and Ecosystems of fin-fish and shell-fish	Studies in fisheries biology have been directed at particular species targeted by fishing operation. In the of decreasing catches and threatened marine ecosystems, there is a need for fisheries managers to take a broader view to include the interdependence of target and other species and the marine environment
Exploited species distribution, life cycles and taxonomy	The proper assessment and management of a fishery requires an understanding of the biology, life cycle and distribution of the species on which it is based. Most important fisheries are based on members of just three large scientific groups: Invertebrates Molluscs, Crustaceans, other invertebrates and fishes
Behaviour communication, fishing methods and effect of fishing on the marine environment.	Behaviour and cognition of fishes are explained.

	Fishing gears and methods used in and the effect on non-target species
Stock structure, abundance and analysis. Growth, age and reproduction cycles. Stock assessment	Studying the dynamic of fish stocks. The fish stock is considered as a simple biological system in which the forces acting to control stock numbers and weight (biomass) are explained. How stocks are assessed is discussed in details.
Fisheries Management	Discuss how the catches from a fish stock are ecologically sustainable and benefits to fishers and community are maximized. Types of management actions are explained.
Aquaculture management and production	Advances in the practices of fish farming and ranching as a mean of food security but humans should find answers to the question of sustainable fisheries and aquaculture if they are to continue to depend on fish as a source of human nutrition

6. Weekly Schedule | **6) الجدول الأسبوعي**

Week الأسبوع	Date التاريخ	Topics Covered الموضوعات المتناولة	CILOs مخرجات التعلُم للمقرر (CILOs)	Teaching/Assessment Mode and Method منهجية ونمط التدريس/التقييم
1		Ecology and ecosystem Distribution and abundance Unit stocks Population growth and life history patterns; marine ecosystems; human impacts on marine ecosystem;	1,2 and 3	Traditional تقليدي
2		Trophic levels and food webs. Productivity and fisheries.	1,2 and 3	Traditional تقليدي
3		Exploited species-invertebrates: molluscs, Crustaceans; echinoderms;	1,2, 3 and 4	Traditional تقليدي
4		Exploited species – vertebrates: fishes	1,2, 3 and 4	Traditional تقليدي
5		Fish communication and cognition and	1,2, 3 and 4	Traditional تقليدي

		methods of fishing. The effects of fishing on the marine environment.		
6		Fishing methods and fishers	1,2, 3, 4 and 5	Traditional تقليدي
7		Stock structure, abundance and analysis. Growth, age and reproduction cycles. Sampling surveys; growth and length frequency data; and reproduction analysis.	1,2, 3, 4 and 5	Traditional تقليدي
8		Stock assessment	1,2, 3,4 and 5	Traditional تقليدي
9			1,2, 3,4 and 5	Traditional تقليدي
10		Stock assessment	1,2, 3,4 and 5	Traditional تقليدي
11		Stock assessment	1,2, 3,4 and 5	Traditional تقليدي
12		Fisheries Management	1,2, 3,4 and 5	Traditional تقليدي
13		Fisheries Management	1,2, 3,4 and 5	Traditional تقليدي
14		Fisheries Management	1,2, 3,4 and 5	Traditional تقليدي
15		Fisheries Management	1,2, 3,4 and 5	Traditional تقليدي
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7. Academic Integrity Statement	**7) بيان النزاهة الأكاديمية**
Students are to observe the highest level of honesty and academic ethics in pursuit of their academic goals as per UOB Regulations of Student Conduct and Academic Integrity, Anti-plagiarism Policies, and Students' Rights and Responsibilities Handbook. The consequences for cheating, plagiarism, unauthorized collaboration, and other forms of academic dishonesty can be very serious and will be dealt with as per the aforementioned policies and regulations.	يتعيّن على الطلبة الالتزام بأعلى مستويات الصدق والأمانة والأخلاق الأكاديمية في سعيهم لتحقيق أهدافهم الأكاديمية وفقًا للوائح سلوك الطلاب والنزاهة الأكاديمية، سياسات مكافحة الانتحال، ودليل حقوق الطلبة وواجباتهم، المعمول بها في جامعة البحرين. يمكن لعواقب الغش والسرقة الأدبية والتعاون غير المصرح به وغيرها من أشكال عدم الأمانة الأكاديمية أن تكون خطيرة للغاية وسيتم التعامل معها وفقًا للسياسات واللوائح المذكورة آنفا.
8. Attendance and Absence Regulations	**8) نظام الحضور والغياب**
Students are required to adhere to regular attendance for class lectures and practical sessions, as determined by the nature of the course, as per Article (33) of Regulations of Study and Examination at the University of Bahrain.	يجب على الطلبة الالتزام بالحضور المنتظم للمحاضرات الصفية والعملية، حسبما تحدده طبيعة المقرر الدراسي، ووفقا للمادة (33) من نظام الدراسة والامتحانات في جامعة البحرين.