

Republic of Iraq
The Ministry Of Higher
Education
& Scientific Research



بسم الله الرحمن الرحيم

University: Diyala
College: Agriculture
Department: Animal production
Stage: second
Lecturer name: Raaed Sami Attee
Qualification: prof
Place of work: Colle. of Agriculture

Flow up of implementation celli pass play

Course Instructor	Prof. Dr. Raaed sami attee				
E-mail	raaedsami@uodiyala.edu.iq				
Title	Principles of fish				
Course Coordinator	Autumn \2024-2025				
Course Objective	<ul style="list-style-type: none"> • Work in the field of fish sciences have theoretical and applied knowledge in the subject of Ichthyology. • Submission of external examinations by local / regional / international bodies. <p>Providing students with skills to work in scientific and research laboratories, and to study Ichthyology and its relationship to fisheries</p>				
Course Description	<p>*Learn the basics of fish classification, their morphological and anatomical characteristics, and their vital activities.</p> <p>*Learn the basics of collecting samples of eggs, larvae and adults of fish for the purpose of studying them.</p> <p>*The student acquires initial theoretical and practical experience to work on fish and methods of reproduction, breeding and fishing</p>				
Textbook	- Ahmed, H. A. (1991). Ichthyology. University of Basrah Press.				
Course Assessments	Term Tests	Laboratory	Quizzes	Project	Final Exam
	20	15	5		60
General Notes					

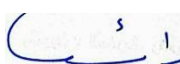
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week	Date	Topics Covered	Practical Part
1	1 st week	Basic structural characteristics of fish	Learn about the great diversity of fish according to body shape and fins
2	2 nd week	The first group Chondrichthyes	Dividing fish into the main groups and identifying Chondrichthyes
3	3 rd Week	The second group marine bony fish	Identify the main groups and families of marine fishes
4	4 th Week	The third group bony freshwater fish	Identify the main groups and families of freshwater fishes
5	5 th Week	Eggs and early life history stages	Get knowledge different life stage of fishes from egg to adulthood
6	6 th Week	First examination	
7	7 th Week	Methods of collecting and examining samples	Illustrate the various practical methods for collecting fishes in river
8	8 th Week	Methods of collecting and examining samples	Identify the various practical methods for collecting fishes of lakes
9	9 th Week	Digestion, food, nutrition and excretion	Recognition the differences in the structure of digestive tract of different fishes in their feeding habits
10	10 th Week	Reproductive system in fishes and propagation	Learn about the types of reproduction in fishes
11	11 th Week	Age & growth in fishes	How to estimate age & growth in fishes
12	12 th Week	Second examination	
13	13 th Week	Floating & gas bladder	Identifying the structure & functions of gas bladder in fishes
14	14 th Week	Blood & circulatory system	Illustrate the various parts of the circulatory system in fishes


Instructor's signature
Prof. Dr. Raaed Sami Attee
15 / 1 / 2025


Dean's signature
Prof. Dr. Raaed Ibrahim Khalil
15 / 1 / 2025