ATTACHMENT 5.

T6. COURSE SPECIFICATIONS (CS)

هيئة تقويم التعليم
Education Evaluation Commission

Course Specifications

Institution: **Tabuk University**	Date: **10\8\1440**
College/Department : **Science / Biology**	

A. Course Identification and General Information

1. Course title and code: **General Zoology 2 (BIO 351)**
2. Credit hours: **3**
3. Program(s) in which the course is offered.
(If general elective available in many programs indicate this rather than list programs)
Biology Program
4. Name of faculty member responsible for the course **Dr. Wafaa Mohamed Hikal**
5. Level/year at which this course is offered: **5**
6. Pre-requisites for this course (if any): **General Zoology 1 (BIO 251)**
7. Co-requisites for this course (if any): **None**
8. Location if not on main campus: **N.A.**
9. Mode of Instruction (mark all that apply):

a. traditional classroom	√	What percentage?	75
b. blended (traditional and online)		What percentage?	
c. e-learning		What percentage?	
d. correspondence		What percentage?	
f. other (Lab work)	√	What percentage?	25

Comments:

B Objectives

1. What is the main purpose for this course?

This course aims to the following learning outcomes:

1. Knowledge of the historical background for the development of a private anatomy of vertebrates.
2. Explain the basic elements of life of the animal, and mechanisms of the diversity of animal life.
3. Monitor the evolution of vertebrates through selective vertebrates.
4. Compare and contrast the development, life cycles, anatomical and physiological characteristics of major chordate groups.
5. Evaluate the relationships of animals to each other and their environments.
6. Describe and identify the main characteristics and classification of samples down to representative of each community.
7. Apply the processes of scientific research and experimental design to the diversity of animals.
8. Distinguish scientific explanations that show general characteristics for each group of chordata.
9. Prepare and examine preserved dissected animals to identify major body organs.

2. Briefly describe any plans for developing and improving the course that are being implemented. (e.g. increased use of IT or web based reference material, changes in content as a result of new research in the field)

- Annual review of course by departmental course planning committee.
- Updating the course with latest curriculum developments in the field.
- Annual review of the laboratory sessions and re-developed with modern tools, and the renewal of microscopic slides and preparations.
- Updating course curriculum using internet materials.
- Comparison of course topics with equivalent local and international courses.

C. Course Description (Note: General description in the form used in Bulletin or handbook)

Course Description:

- This course includes introduction to the biology of the phylum Chordata with emphasis of subphylum vertebrata, general characters and examples of vertebrate animals and their diversity.

1. Topics to be Covered

List of Topics	No. of Weeks	Contact hours
Introducing the curriculum (course content) - **Review of the previous prerequisite** - **Highlighting the knowledge and skills the curriculum is based on**	**1**	**3**

Introduction to the concept of Chordata, General characters, Classification of Chordata	**1**	**3**
Cephalochordate animals (general features - *Amphioxus*)	**1**	**3**
Urochordata (general characters – *Ascidia)*	**1**	**3**
Subphylum vertebrata (general features, Agnatha, *Petromyzon*)	**1**	**3**
Superclass Gnathostomata (general characters, cartilaginous fishes, the dog fish)	**1**	**3**
Bony fishes (general characteristics, examples, *Tilapia*)	**1**	**3**
Revision and Pre Final Exam		
The pigeon (external features, adaptability and internal anatomy)	**1**	**3**
Amphibians (general features, frog, other examples of amphibians)	**1**	**3**
Reptiles (general characters. The lizard, other examples of Reptilia)	**1**	**3**
Birds (general features and structure) - Revision	**1**	**3**
Mammals (General characters, classification)	**1**	**3**
Studying an example of mammals (rabbit), Revision	**1**	**3**
Final Exam		

2. Course components (total contact hours and credits per semester):

		Lecture	Tutorial	Laboratory/ Studio	Practical	Other:	Total
Contact Hours	Planed	**26**			**26**		**52**
	Actual						
Credit	Planed	**2**			**1**		**3**
	Actual						

3. Additional private study/learning hours expected for students per week. **None**

4. Course Learning Outcomes in NQF Domains of Learning and Alignment with Assessment Methods and Teaching Strategy

On the table below are the five NQF Learning Domains, numbered in the left column.

First, insert the suitable and measurable course learning outcomes required in the appropriate learning domains (see suggestions below the table). **Second**, insert supporting teaching strategies that fit and align with the assessment methods and intended learning outcomes. **Third**, insert appropriate assessment methods that accurately measure and evaluate the learning outcome. Each course learning outcomes, assessment method, and teaching strategy ought to reasonably fit and flow together as an integrated learning and teaching process. (Courses are not required to include learning outcomes from each domain.)

Code #	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
1.0	Knowledge		
	To describe the external and internal structures of chordate animals. -To Recall and differentiate between different animal tissues. -To define animals systematically in the Animal Kingdom. -To label different organs of different systems. -To get acquainted with the basics of the animal Ecology. -To name properties and structure of chordate animal organs. -To memorize how to dissect some animals.	- In class lecturing (using PowerPoint and illustrations on the white board). - Discussions. - Self-learning and cooperative learning. - Application of scientific method in thinking by solving scientific problems. - Laboratory practice and microscope examination (testing and report writing). - Training in anatomy and study the various tissues and organs - Activities and homework.	1-Pre-final and final exams. 2-Assessment of lab reports and practical examinations. 3-Activities and homework evaluations.
2.0	Cognitive Skills		
	To refer different organs of different systems. - To recognize an overview of the tissues anatomy - To prepare some examples of dissecting animals. - To know anatomical characteristics and installation of animal tissues in vertebrates. - To identify animals systematically in the Animal Kingdom. - To diagram some organelles of chordate animals. To contrast taxonomically between different animals. - To compare animal development during different stages of their life cycles.	Use of microscopic illustrations. □ Laboratory exercises and anatomy. □ Activities and homework.	□ Students response during the class. □ Evaluation of lab reports and examinations. □ Evaluation of Activities and homework.
3.0	Interpersonal Skills & Responsibility		

	To choose a work in a team to conduct a specific project. **To demonstrate a specific project with minimal supervision.** **To able to work independently to dissect animals and organs of the study.** **To evaluate his results.**	**- Cooperative learning and application of scientific method in thinking the scientific problem solving.** **- Work as part of a team.** **- Conducting group experiments and writing group reports.** **- Dividing students into groups to cooperate with each other during the animals dissecting.**	**· Assessment of group projects.** **· Assessing the performance of students in lab sessions.** **· An assessment of performance individually.** **· Oral discussion**
4.0	**Communication, Information Technology, Numerical**		
	• To able to use computers and internet. **• To operate in a team to record notes on anatomical characteristics.** **• To use his observations to solve problems.** **• To research and conduct searches for restoring information.** **• To calculate and discuss the facts and logical propose methods to solve the difficulties.**	**Promoting students to submit activities, homework and writing reports.**	**· Evaluating the laboratory written reports.** **· Evaluating activities and homework.**
5.0	**Psychomotor**		
	- To examine and describe some larvae of chordate animals under the microscope **- To draw some examples of vertebrate animals.** **- To examine models of phylum chordata.** **- To dissect some examples of animals.** **- To use computers and internet.** **- To contribute in the awareness programs that aim to take advantage of the wealth of animal and how to use them economically.**	**- Using of microscopic illustrations.** **- Laboratory exercises and anatomy.** **- Activities and homework.** **- Preparing researches.** **- Community participation.**	**Evaluating the laboratory written reports.**

5. Schedule of Assessment Tasks for Students During the Semester

	Assessment task (i.e., essay, test, quizzes, group project, examination, speech, oral presentation, etc.)	Week Due	Proportion of Total Assessment
1	**Quiz**	**5**	**10%**
2	**Mid-term lab Exam**	**8**	**10%**
3	**Final lab Exam**	**15**	**15%**
4	**Midterm Theory Exam**	**8**	**25%**
5	**Final Theory Exam**	**16**	**40%**

D. Student Academic Counseling and Support

1. Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice. (include amount of time teaching staff are expected to be available each week)

- Office hours 10 hr/ week
- help sessions 1 hr/ week aided by two faculty members

E Learning Resources

1. List Required Textbooks

- Jordan, E. L. and Verma, P. S. (1983): Chordate Zoology.

2. List Essential References Materials (Journals, Reports, etc.)

- Kardong, K.V. 2001. Vertebrates-Comparative Anatomy, Function, Evolution, 3rd ed., Dubuque, IA: W.C. Brown.

3. List Electronic Materials, Web Sites, Facebook, Twitter, etc.

- R.L.Kotpal, 2000. Modern textbook of Zoology, Vertebrates. (Rastogi Publ., India). 632 pages.

4. Other learning material such as computer-based programs/CD, professional standards or regulations and software.

Microsoft office package.

F. Facilities Required

Indicate requirements for the course including size of classrooms and laboratories (i.e. number of seats in classrooms and laboratories, extent of computer access, etc.)
1. Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.) **• lecture halls, containing white boards, and electronic monitors. The seats fit the number of students.** **• Laboratories equipped with three tables and water sources, microscopes and animal samples.**
2. Technology resources (AV, data show, Smart Board, software, etc.) **Not applicable**
3. Other resources (specify, e.g. if specific laboratory equipment is required, list requirements or attach list) **Anatomy tools** · **Microscopes** · **Animal samples** · **Models of vertebrate animals** · **Glass slides of animal chordates samples** · **Projectors** · **Transparencies**

G Course Evaluation and Improvement Processes

1. Strategies for Obtaining Student Feedback on Effectiveness of Teaching **• Distribution of questioners for course evaluation by students.** **• Students- teaching staff members meetings.**
2. Other Strategies for Evaluation of Teaching by the Instructor or by the Department **• Peer consultation by departmental course committee.** **• Self-evaluation of the programme by the department.**
3. Processes for Improvement of Teaching **• Installation of modern microscopes, digital labs and maintenance.** **• Implementation of suggestions administration** **• Implementation of suggestions by departmental course committee.** **• Monitoring of teaching activates by administration.**

4. Processes for Verifying Standards of Student Achievement (e.g. check marking by an independent member teaching staff of a sample of student work, periodic exchange and remarking of tests or a sample of assignments with staff at another institution) **• Reviewing assessments by staff member/chairman/special committee when required and instructed by higher administration at the end of each semester.**
5. Describe the planning arrangements for periodically reviewing course effectiveness and planning for improvement. **• Comparison of course with equivalent courses.** **• Reviewing course topics annually by the departmental course committee.** **• Refreshment of teaching resources to ensure updating of knowledge.** **• Use of statistics of course evaluation by students to improve the course.**

Name of Course Instructor: Dr. Wafaa Mohamed Hikal

Signature: *Wafaa Hikal* Date Specification Completed: 10\8\1440

Program Coordinator: **Dr. Omar Salem Obeid Bahattab**

Signature: *Omar Bahattab* Date Received: 16/8/1440