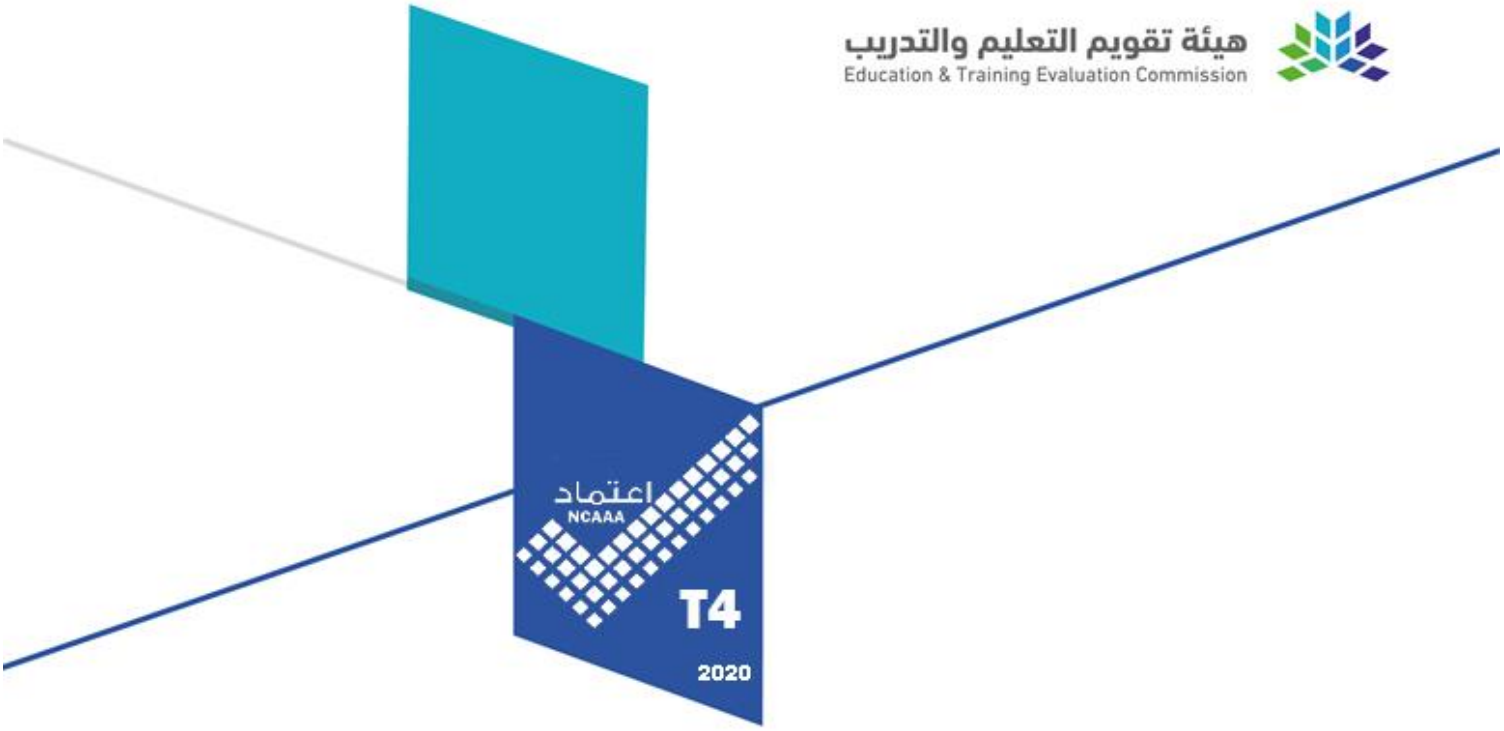
هيئة تقويم التعليم والتدريب
Education & Training Evaluation Commission




# Course Specifications

| | | |
|---|---|---|
| **Course Title:** | Animal Physiology | |
| **Course Code:** | **351 ZOO** | |
| **Program:** | **Biology** | |
| **Department:** | **Biology** | |
| **College:** | **Science** | |
| **Institution:** | **Jazan University** | |

## Table of Contents

## A. Course Identification

| |
|---|
| **1. Credit hours:** |
| **2. Course type**<br>**a.** University ☐ College ☐ Department ☑ Others ☐<br>**b.** Required ☑ Elective ☐ |
| **3. Level/year at which this course is offered:**<br>**Level Five / 3rd year:** Biology Program |
| **4. Pre-requisites for this course** (if any)**:None** |
| **5. Co-requisites for this course** (if any)**:None** |

**6. Mode of Instruction** (mark all that apply)

| No | Mode of Instruction | Contact Hours | Percentage |
|---|---|---|---|
| 1 | **Traditional classroom** | 26 h | 86.7% |
| 2 | **Blended** | 4 h | 13.3% |
| 3 | **E-learning** | | |
| 4 | **Distance learning** | | |
| 5 | **Other** | | |

**7. Contact Hours** (based on academic semester)

| No | Activity | Contact Hours |
|---|---|---|
| 1 | **Lecture** | **30** |
| 2 | **Laboratory/Studio** | **28** |
| 3 | **Tutorial** | **2** |
| 4 | **Others** (specify) | - |
| | **Total** | **60** |

## B. Course Objectives and Learning Outcomes

**1. Course Description**

A comparative study of physiological processes in different species of animals and their integration in different organs of animals.

**2. Course Main Objective**

To familiarize students with the principles and basic facts of **Animal Physiology** and with some of the laboratory techniques and equipment used in the acquisition of **physiological** data. The emphasis will be on mammalian **physiology** but there will be some coverage of other vertebrate taxa.

**3. Course Learning Outcomes**

| CLOs | | Aligned PLOs |
|---|---|---|
| 1 | **Knowledge and Understanding** | |
| 1.1 | Differentiate (Compare) between different mechanisms, functions, practices and aspects related to Animal Pysiology. ميز بين (قارن) الميكانيكيات والوظائف والممارسات والرؤي المتعلقة بفسيولوجيا الحيوان | K2.1 |

| CLOs | | Aligned PLOs |
|---|---|---|
| | . | |
| 1.2 | Interpret by using your knowledge and understanding some of Animal Physiology. فسر في ضوء المعرفة والفهم المكتسبين من خلال دراستك بعض الظواهر الفسيولوجية . | K3.2 |
| **2** | **Skills :** | |
| 2.1 | Apply the theoretical knowledge and understanding in laboratory experiments and techniques طبق المعرفة والفهم للعمليات البيولوجية فى التجارب والتقنيات العملية | S1.2 |
| 2.2 | Set-up an experiment, investigation and research project for complex issues and problems in Animal Physiology نفذ تجربة أو قياسات بيولوجية أو خطة بحث فى مواضيع مختلفة مرتبطة بعلم فسيولوجيا الحيوان | S3.3 |
| 2.3 | Propose solutions for different complex physiological approaches. اقترح حلولا لمختلف المسائل والمشاكل الفسيولوجية المعقدة | S4.2 |
| **3** | **Values:** | |
| 3.1 | Access multiple sources of information, capture essential information, and distinguish it from extraneous data. وتمييزها عن الوصول إلى مصادر متعددة للمعلومات ، والتقاط المعلومات الأساسية البيانات الدخيلة . | V1.3 |

## C. Course Content

| No | List of Topics | Contact Hours |
|---|---|---|
| 1 | Nutrition (Nutrients, Feeding Methods, Metabolism, Absorption, Energy | 4 |
| 2 | Temperature Regulation (Body Temperature, Temperature Tolerance) | 3 |
| 3 | Excretion (Excretory Organs, Excretory Products) | 4 |
| 4 | Reproduction (Strategies, Organs, Cycles, Pregnancy, Parturition) | 4 |
| 5 | Respiration (Methods, Organs, Gas Exchange, Pigments, Movement) | 4 |
| 6 | Circulation (Systems, Blood Flow and Pressure, Regulation). | 4 |
| 7 | Locomotion (Muscle Structure/Types, Contraction) | 2 |
| 8 | Nervous System (Nerves, Neurons, Transmission of nerve impulse) | 3 |
| 9 | Nervous System (Receptor Types and their Action | 2 |
| **Total** | | 30 |

## D. Teaching and Assessment

### 1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

| Code | Course Learning Outcomes | Teaching Strategies | Assessment Methods |
|---|---|---|---|
| **1.0** | **Knowledge and Understanding** | | |
| 1.1 | Differentiate (Compare) between different mechanisms, functions, practices and aspects related to Animal Pysiology. ميز بين (قارن) الميكانيكيات والوظائف والممارسات والرؤي المتعلقة بفسيولوجيا الحيوان. | Lectures, | Quizzes, Short Answer Question, MCQs |
| 1.2 | Interpret by using your knowledge and understanding some of Animal Physiology. فسر في ضوء المعرفة والفهم المكتسبين من خلال دراستك بعض الظواهر الفسيولوجية .. | Lectures, Lab work | Quizzes, Short Answer Question, MCQs |
| **2.0** | **Skills** | | |
| 2.1 | Apply the theoretical knowledge and understanding in laboratory experiments and techniques طبق المعرفة والفهم للعمليات البيولوجية في التجارب والتقنيات العملية . | Lectures, Lab work | Quizzes, Short Answer Question |
| 2.2 | Set-up an experiment, investigation and research project for complex issues and problems in Animal Physiology نفذ تجربة أو قياسات بيولوجية أو خطة بحث في مواضيع مختلفة مرتبطة بعلم فسيولوجيا الحيوان . | Lectures, Lab work, Group Discussion | Quizzes, Short Answer Question, Lab work assessment |
| 2.3 | Propose solutions for different complex physiological approaches. اقترح حلولا لمختلف المسائل والمشاكل الفسيولوجية المعقدة . | Lab work | Short Answer Question, Assignments |
| **3.0** | **Values** | | |
| 3.1 | Access multiple sources of information, capture essential information, and distinguish it from extraneous data. الوصول إلى مصادر متعددة للمعلومات ، والتقاط وتمييزها عن البيانات المعلومات الأساسية الدخيلة | Group Discussion, Lab work | Lab work assessment |

### 2. Assessment Tasks for Students

| # | Assessment task* | Week Due | Percentage of Total Assessment Score |
|---|---|---|---|

| # | Assessment task* | Week Due | Percentage of Total Assessment Score |
|---|---|---|---|
| 1 | Written assignment | 3 | 3 |
| 2 | Group assignment | 4 | 2 |
| 3 | Theoretical quiz | 5 | 5 |
| 4 | Mid-term exam | 7 | 10 |
| 5 | Practical Mid-term exam | 9 | 10 |
| 6 | Practical assignment | 11 | 5 |
| 7 | Final practical exam | 13 | 15 |
| 8 | Final Exam | 15 | 50 |

***Assessment task** (i.e., written test, oral test, oral presentation, group project, essay, etc.)

## E. Student Academic Counseling and Support

**Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice :**
10 Office hours/faculty/week

## F. Learning Resources and Facilities

### 1.Learning Resources

| | |
|---|---|
| **Required Textbooks** | محمد بن صالح الخليفة ( 2008 ). الفسيولوجيا العامة. جامعة الملك سعود. النشر العلمي والمطابع |
| **Essential References Materials** | -Schmidt-Nielsen, K. (1994). Animal Physiology: Adaptation and Environment . Cambridge University Press, Cambridge, U.K..<br>-Withers, P.C. (1992). Comparative Animal Physiology, Saunders CollegePublishing, USA.<br>-William O. Reece ( 2015 ). Functional Anatomy and Physiology of Domestic Animals. Wiley – Blackwell<br>Guyton and Hall,2006 Text book of Medical physiology 11 th |
| **Electronic Materials** | Web Sites, Facebook, Twitter, etc |
| **Other Learning Materials** | such as computer-based programs/CD, professional standards or regulations and software. |

### 2. Facilities Required

| Item | Resources |
|---|---|
| **Accommodation**<br>(Classrooms, laboratories, demonstration rooms/labs, etc.) | 1 Lecture room(s) for groups of 50 students.<br>1 Laboratory for group of 25 students. |
| **Technology Resources**<br>(AV, data show, Smart Board, software, etc.) | AV, data show, Smart Board |
| **Other Resources**<br>(Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list) | Light microscopes, glassware, chemicals, consumables, dissection tools. |

## G. Course Quality Evaluation

| Evaluation Areas/Issues | Evaluators | Evaluation Methods |
|---|---|---|
| Effectiveness of teaching | Students, Faculty | Direct (Questionnaire) |
| Effectiveness of assessment | Peer Reviewer | Direct (Cross Check marking) |
| Extent of achievement of course learning outcomes | Program Leader | Indirect (QA Committee) |
| Quality of learning resources | QA. Committee | Indirect (Benchmarking) |

**Evaluation areas** (e.g., Effectiveness of teaching and assessment, Extent of achievement of course learning outcomes, Quality of learning resources, etc.)
**Evaluators** (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify)
**Assessment Methods** (Direct, Indirect)

## H. Specification Approval Data

| | |
|---|---|
| **Council / Committee** | |
| **Reference No.** | |
| **Date** | |

**Course coordinator: Dr. Tag El Asfia Ahmed Osman**

**Signature:**  **Date 18 / 2 /2021**

**Approved by:**

**Name: Dr. Yahia Soleiman Masrahi Position: Chair of Department**

**Signature:**