

Course Specifications

| Course Title: | General Biology 2 |
|----------------------|---------------------------------------|
| Course Code: | BIO202 |
| Program: | Bachelor of Science in Biology |
| Department: | Department of Biology |
| College: | Faculty of Science |
| Institution: | University of Tabuk |







Table of Contents

| A. Course Identification 3 | |
|--|---|
| 6. Mode of Instruction (mark all that apply) | 3 |
| B. Course Objectives and Learning Outcomes 3 | |
| 1. Course Description | 3 |
| 2. Course Main Objective | 3 |
| 3. Course Learning Outcomes | 4 |
| C. Course Content 4 | |
| D. Teaching and Assessment 5 | |
| 1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods | 5 |
| 2. Assessment Tasks for Students | 5 |
| E. Student Academic Counseling and Support 5 | |
| F. Learning Resources and Facilities 6 | |
| 1.Learning Resources | 6 |
| 2. Facilities Required | 6 |
| G. Course Quality Evaluation 6 | |
| H. Specification Approval Data 7 | |

A. Course Identification

| 4. Pre-requisites for this course (if any): General Biology (BIO101) | | | | |
|--|--|--|--|--|
| 5. Co-requisites for this course (if any): | | | | |
| | | | | |

6. Mode of Instruction (mark all that apply)

| No | Mode of Instruction | Contact Hours | Percentage |
|----|-----------------------|----------------------|------------|
| 1 | Traditional classroom | 3 | 70% |
| 2 | Blended | | |
| 3 | E-learning | | |
| 4 | Distance learning | | |
| 5 | Other (laboratory) | 2 | 30% |

7. Contact Hours (based on academic semester)

| No | Activity | Contact Hours |
|----|-------------------|----------------------|
| 1 | Lecture | 39 |
| 2 | Laboratory/Studio | 26 |
| 3 | Tutorial | |
| 4 | Others (specify) | |
| | Total | 65 |

B. Course Objectives and Learning Outcomes

1. Course Description

- The course covers topics on animal and plant hormones, circulation in animals and plants, transporting system in plants and immune response in animals, taxonomic principals, animal nervous system, principles in general ecology and sensation in plants.

2. Course Main Objective

- Explain the animal and plant hormones and their functions.
- Explain the circulatory system in animals and transporting system in plants.
- Identify the basic features of general ecology (animal and plant ecology).
- Students will be able to explain the immune system in animals and plants.
- Subjects such as structure of the atmosphere, food web, ecological pyramids, succession of vegetation, natural resources and their conservation, sources and minimization of pollution are also included.

3. Course Learning Outcomes

| CLOs | | Aligned PLOs |
|------|--|-----------------|
| 1 | Knowledge and Understanding: | |
| 1.1 | To describe plant and animal hormones, circulatory system in animal, | K1 |
| | the structure and function of nervous system and plant transporting | |
| | system | |
| 1.2 | To discuss the main differences between animal and plant ecology. | K1 |
| 1.3 | To indicate animal circulatory system and plant transporting system. | K1 |
| 2 | Skills: | |
| 2.1 | To summarise the basics of classification systems in plants and animals | S1 |
| 2.2 | To write a report describing an experiment related to plant sensation. | S1 |
| 2.3 | To develop the essential practical skills relevant to the use of different | S2 |
| | instruments. | |
| 3 | Values: | |
| 3.1 | To show the ability to work individually and a part of team to perform | V1 |
| | scientific, professional and community tasks. | |

C. Course Content

| N 0 | List of Topics | Contact Hours |
|--------|---|------------------|
| 1 | Animal Hormones 1 | 3 |
| 2 | Animal Hormones 2 | 3 |
| 3 | Control Systems in Plants (Major plant hormones) 1 | 3 |
| 4 | Control Systems in Plants (Major plant hormones) 2 | 3 |
| 5 | Circulatory System in Animals | 3 |
| 6 | Circulatory System in Animals | 3 |
| 7 | Transporting System in Plants (Xylem and Phloem) | 3 |
| | Midterm Exam | |
| 8 | Animal Immunology | 3 |
| 9 | Principles of Taxonomy, Five Major Kingdoms. | 3 |
| 10 | The Nervous System in Animals (Central) | 3 |
| 11 | The Nervous System in Animals (Peripheral) | 3 |
| 12 | Principles of General Ecology (Population, Community and Ecosystem) | 3 |
| 13 | Plant Sensation | 3 |
| | Final Exam | |
| | Total | 39 |

| .No | (List of Topics (Laboratory parts | Contact Hours |
|-----|--------------------------------------|------------------|
| 1 | Biology Lab Equipment and Lab Safety | 2 |
| 2 | Animal Hormones | 4 |
| 3 | Circulatory System | 4 |
| 4 | Animal Immunology | 2 |

| | Total | 26 |
|----|--|----|
| | Final Practical Exam | |
| 10 | Animal Ecology | 2 |
| 9 | Plant ecology | 2 |
| 8 | Types of Roots | 2 |
| 7 | Stem, Leaf morphology Vascular Bundles & T.S stem and root | 4 |
| 6 | Plant Hormones | 2 |
| | Mid Term Practical Exam | |
| 5 | The Nervous System | 2 |

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 | To describe plant and animal hormones, circulatory system in animal, the structure and function of nervous system and plant transporting system | Lectures. Activities and homework. | Quizzes.Homework.Final exam. | | |
| 1.2 | To discuss the main differences between animal and plant ecology. | | - rmarexam. | | |
| 1.3 | To indicate animal circulatory system and plant transporting system. | | | | |
| 2.0 | Skills: | | | | |
| 2.1 | To summarize the basics of classification systems in plants and animals | Lab demonstrations.Individual and small | - Assessment of lab reports and | | |
| 2.2 | To write a report describing an experiment related to plant sensation | tasks. - Short essay. | practical examinations. | | |
| 2.3 | To develop the essential practical skills relevant to the use of different instruments. | | | | |
| 3.0 | .0 Values: | | | | |
| 3.1 | To show the ability to work individually and a part of team to perform scientific, professional and community tasks. | Lab demonstrations. Individual presentation and group. | -Oral and written scientific report -Interactive discussion and participation | | |

2. Assessment Tasks for Students

| # | *Assessment task | Week Due | Percentage of Total Assessment Score |
|---|--|----------|---|
| 1 | Quizzes + Assignments + Class discussion | 1-13 | 10% |
| 2 | Midterm Theoretical Exam | 8 | 25% |
| 3 | Midterm Practical Exam | 8 | 10% |
| 4 | Final Practical Exam | 14 | 15% |

| # | *Assessment task | Week Due | Percentage of Total Assessment Score |
|---|------------------------|----------|---|
| 5 | Final Theoretical Exam | 15 | 40% |
| | | | |

*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:

- Office hours: 6 hours / week at least.

- Academic Guidance for about 30 students as determined by admission and registration.
- Direct supervision of staff for lab works.
- Electronic communication through blackboard and e-mail.

F. Learning Resources and Facilities

1.Learning Resources

| Required Textbooks | Gareth, P. (2006): Biology: An Illustrated Guide to Science. Chelsea House Publications. ISBN-10: 0816061629. |
|-----------------------------------|--|
| Essential References Materials | - Gareth, P. (2006): Biology: An Illustrated Guide to Science. Chelsea House Publications. ISBN-10: 0816061629 |
| Electronic Materials | Websites on the internet that are relevant to the topics of the course www.sciencedirect.com www.plantphysiol.org |
| Other Learning Materials | Multimedia associated with the text book and the relevant websites |

2. Facilities Required

| Item | Resources | |
|---|--|--|
| Accommodation Classrooms, laboratories, demonstration) (.rooms/labs, etc | -A sufficient number of classrooms, well equipped -practical laboratories are available to accommodate students. Virtual session provided by the blackboard (which-(allow discussions, and sharing PowerPoint and video) | |
| Technology Resources AV, data show, Smart Board, software,) (.etc | -Data show wireless connection in the building for students and- faculties | |
| Other Resources Specify, e.g. if specific laboratory) equipment is required, list requirements or (attach a list | Instruments required for conducting the experiments such as: light microscope, microtome, electrophoretic unit, T/A apparatus, Respiroscope | |

G. Course Quality Evaluation

| Evaluation Areas/Issues | Evaluators | Evaluation Methods |
|--|------------|----------------------------|
| Effectiveness of teaching and assessment | Students | Indirect - Questionnaires. |

| Evaluation Areas/Issues | Evaluators | Evaluation Methods |
|---|--|--|
| Extent of achievement of course learning outcomes | Program committee - Staff members. - Students. | Direct - Questionnaires. - Reports. - Meetings |
| Quality of learning resources | Program leaders - Peer Reviewer | Direct & Indirect - Questionnaires. - Reports. - Meetings |

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 | Biology Department Council |
|---------------------|----------------------------|
| Reference No. | |
| Date | 1/6/2022 |