



المركز الوطني للتقويم والاعتماد الأكاديمي  
National Center for Academic Accreditation and Evaluation

## **ATTACHMENT 5.**

# **T6. COURSE SPECIFICATIONS (CS)**

## Course Specifications

Institution: University of Tabuk	Date: April 17, 2019
College/Department : Science/ Biology	

### A. Course Identification and General Information

1. Course title and code: <b>General Botany II (BIO 341)</b>			
2. Credit hours: <b>3</b>			
3. Program(s) in which the course is offered: <b>Biology</b> (If general elective available in many programs indicate this rather than list programs)			
4. Name of faculty member responsible for the course:			
5. Level/year at which this course is offered: <b>Level 5</b>			
6. Pre-requisites for this course (if any): <b>General Botany I (BIO 241)</b>			
7. Co-requisites for this course (if any): <b>Non</b>			
8. Location if not on main campus: <b>N.A.</b>			
9. Mode of Instruction (mark all that apply)			
a. Traditional classroom	<input checked="" type="checkbox"/>	What percentage?	<input type="text" value="75"/>
b. Blended (traditional and online)	<input type="checkbox"/>	What percentage?	<input type="text"/>
c. e-learning	<input type="checkbox"/>	What percentage?	<input type="text"/>
d. Correspondence	<input type="checkbox"/>	What percentage?	<input type="text"/>
f. Other (Lab work)	<input checked="" type="checkbox"/>	What percentage?	<input type="text" value="25"/>
Comments:			

### B Objectives

1. What is the main purpose for this course?
<p><b>At the end of this course should get to:</b></p> <ul style="list-style-type: none"> <li>• Provide students with modern information needed to reach a clear knowledge and understanding the specific characteristics of living organisms.</li> <li>• Introduce students to the scientific concept of science terms partition and label scientific, and different systems of classification.</li> <li>• Develop student's ability to learn and understand the evolutionary relationship between different groups of plants.</li> </ul> <p>Develop the skills of students in the remedy common mistakes to be able to distinguish between monocot and dicot plants.</p>

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)

- Continuous updating of the material of study and work adjustments for modern scientific techniques developed in general botany by looking at recent research and access to the latest versions of the books published in this area and through the Internet.
- Review course content on a regular basis by specialists in botany to add good and modern knowledge.
- Update the practical materials.
- The use of high-accuracy optical microscopes to examine plant specimens.
- Evaluation of the course content and its scientific benefit by students in practical ways.
- To encourage the student to the discussion during the lecture.

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

Course Description:

- The course includes introduction and historical background of Botany, general characters of living organisms with emphasis on plants, Systems of classification; the concept of identification, classification and nomenclature; the concept of cell, general characters of each of algae, Bryophytes, Pteridophytes, Gymnosperms and Angiosperms including reproduction and life cycle, taxonomically studies on some plant families (monocot and dicot) and the evolutionary relationship between the different plant groups.

1. Topics to be Covered		
List of Topics	No. of Weeks	Contact Hours
Introduction to Botany, Plant history and Plant in relation to life Sciences.	1	3
General characters of living organisms [especially for plants].	1	3
Systems of classification; the concept of identification, classification and nomenclature; the concept of cell.	1	3
Systems of classification; the concept of identification, classification and nomenclature; the concept of cell.	1	3
General characters of Algae including reproduction and life cycle.	1	3
General characters of Algae including reproduction and life cycle.	1	3
General characters of Algae including reproduction and life cycle.	1	3
<b>Revision and Pre Final Exam</b>		
<b>Mid Term Vacation</b>		
General characters of Bryophytes including reproduction and life cycle.	1	3
General characters of Pteridophytes including reproduction and life cycle.	1	3
General characters of Gymnosperms including reproduction and life cycle.	1	3
General characters of Angiosperms including reproduction and life cycle.	1	3
Taxonomically studies on some plant families [monocot & dicot].	1	3
The evolutionary relationship between the different plant groups. Revision	1	3
<b>Final Exam</b>		

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

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

3. Additional private study/learning hours expected for students per week.

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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
<b>1.0</b>	<b>Knowledge</b>		
1.1	Define the basics, the most important concepts, and terminology constants for Botany. and methods of seed germination.	-Reproduce the lectures (using PowerPoint and illustrations on the white board) - Describe the Self-learning and cooperative learning. - Employ the scientific method in thinking by solving scientific problems.	-Evaluate the Pre-final and final exams. - Asses the of lab reports and practical examinations.
1.2	-List, name and record the structure of flower and fruits. - Recognize the main differences between stem and root anatomy.	-Record the laboratory practice and microscope examination (Conducting experiments and writing reports).	-Recall the homework and evaluations.

		- Reproduce the activities and homework	
<b>2.0</b>	<b>Cognitive Skills</b>		
2.1	- Summarize most of the Botanical data.	- Group discussion	- Direct questions.
2.2	- Evaluate the evolutionary relationships between plant communities.	- Oral discussion. - Homework. - Practical lessons.	- Measuring the ability to recognize concepts.
<b>3.0</b>	<b>Interpersonal Skills &amp; Responsibility</b>		
3.1	- Appraise their time in self-study of the course materials.	- Homework. - Conduct research.	- Project discussion.
3.2	- Operate in teamwork.	- Working in groups	- Student evaluation by teacher. - Observation of student behavior in the lab.
<b>4.0</b>	<b>Communication, Information Technology, Numerical</b>		
4.1	- Interpret read the results and take responsibility.	- Homework project.	- Oral discussion.
4.2	- Interpret the modern ways in gather information in the specialty, such as computers and the Internet.	- Homework activities.	- Writing the reports and oral discussion.
4.3	- Commitment to the ethics of scientific research and work in the research team.	- Practical lessons	- Observation of student behavior in the lab.
<b>5.0</b>	<b>Psychomotor</b>		
5.1	Not Applicable	Not Applicable	Not Applicable

5. Schedule of Assessment Tasks for Students During the Semester			
	Assessment task (e.g. essay, test, 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: 10hours / week
  - Academic Guidance for about 20 students as determined by admission and registration.
  - Direct supervision of staff for lab works.

Electronic communication through university web page and e-mail.

## E Learning Resources

### 1. List Required Textbooks

- Biology: Concepts and Connections- Campbell et al., Pearson International, 6th edition
- General Botany – Gilbert M. Smith (2007). 3rd Ed. New York, the Macmillan Co. 1937.

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

- Martin, J.; Leonard, W.; Stamp, D. (1976), Principles of Field Crop Production (Third Edition), New York: Macmillan Publishing Co., Inc., ISBN 0-02-376720-0
- EG Cutter (1977) Plant Anatomy Part 1. Cells and Tissues. Edward Arnold, London
- PH Raven, Evert RF, Eichhorn SE (1999) Biology of Plants, 6th edition. WH Freeman, New York
- Campbell, Neil A.; Jane B. Reece (2002). Biology (6th Ed.). Benjamin Cummings
- Benjamin Cummins (2007), Biological Science (3 ed.), Freeman, Scott, p. 215
- Debbie Swarhout and C.Michael Hogan. 2010. Stomata. Encyclopedia of Earth. National Council for Science and the Environment, Washington DC.

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

Biology: Concepts and Connections- Campbell et al., Pearson International, 6th edition

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

[www.sciencedirect.com](http://www.sciencedirect.com)

## 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.)

- Classrooms accommodate about 60 students/ Room
- Laboratories accommodate about 30 students/ Lab.

### 2. Technology resources (AV, data show, Smart Board, software, etc.)

Well equipped lab and lecture room with computers and display screens installed with curtains on the windows are required.

### 3. Other resources (specify, e.g. if specific laboratory equipment is required, list requirements or attach list)

A number of plant materials are required

## G Course Evaluation and Improvement Processes

### 1. Strategies for Obtaining Student Feedback on Effectiveness of Teaching

#### 1. Questionnaires.

Direct meetings between students and faculty members.

### 2. Other Strategies for Evaluation of Teaching by the Instructor or by the Department

-Peer consultation by departmental course committee

3. Processes for Improvement of Teaching

- Discussion sessions with colleagues and the Quality Assurance Committee of the department and faculty.
- Implementation of suggestions by the administration
- Implementation of suggestions by departmental course committee.
- Monitoring of teaching activities by the 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 chairman, colleagues and the committee of development in the department

5. Describe the planning arrangements for periodically reviewing course effectiveness and planning for improvement.

- Scheduled comparison with similar courses on the local and global level.
- Review content periodically by the Committee on development of the department.
- Using statistics of student questionnaires to assess course to improve the quality of course.

Name of Course Instructor: \_\_\_\_\_ Dr. Mohammad Nasir Khan \_\_\_\_\_

Signature:  Date Specification Completed: April 17, 2019

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

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