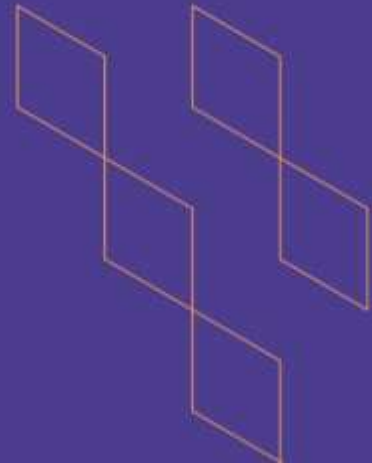




T-104
2022

Course Specification



Course Title: Economic plant
Course Code: BOTN442
Program: BACHELOR OF BIOLOGY SCIENCE
Department: BIOLOGY
College: Science college
Institution: JAZAN UNIVERSITY
Version: T-104 (2022)
Last Revision Date: 20 March 2023



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.1	Define all principals, concepts, theories and aspects concerning with Economic botany.	K1.1	Interactive lectures. Classroom discussions Tutorials. Self-learning activities.	MCQs. Short answer questions. True/False. Quizzes. Midterm. Final exam.	
.2	List all characteristics, importance, features, steps of Economic botany aspects.	K1.3	Interactive lectures. Classroom discussions Tutorials. Self-learning activities.	MCQs. Short answer questions. True/False. Compare. Quizzes. Midterm. Final exam.	
.3	Explain all processes, mechanisms, definitions, theories, mode of actions of all Economic botany aspects.	K2.2	Interactive lectures. Classroom discussions Tutorials. Self-learning activities.	MCQs. Short answer questions. True/False. Quizzes. Midterm. Final exam.	
.4	Interpret by using your knowledge and understanding some of Economic botany phenomena.	K3.2	Interactive lectures. Classroom discussions Tutorials. Self-learning activities.	MCQs. Short answer questions. True/False. Quizzes. Midterm. Final exam.	



2.0	Skills			
2.1	Examine theoretically or practically the slides, photos, diagrams or statements of Economic botany aspects.	S1.3	Interactive lectures. Classroom discussions Tutorials. Self-learning activities.	MCQs. Short answer questions. True/False. Quizzes. Midterm. Final exam.
2.2	Write a report about any practical or theoretical tasks related to Economic botany science.	S3.3	Interactive lectures. Classroom discussions Tutorials. Self-learning activities.	MCQs. Short answer questions. Quizzes. Midterm. Final exam
3.0	Values, autonomy, and responsibility			
3.1	Access multiple sources of information, capture essential information, and distinguish it from extraneous data.	V1.3	Individual assignments. Group discussion. Lab-work. Self-learning activities. Micro-Project Presentation (individual and teamwork)	Group Assignment. Observation. Group Discussion. Theory Home work.

C. Course Content

D. Student Assessment Activities

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E. Learning Resources and Facilities

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1. References and Learning Resources

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2. Required Facilities and Equipment

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F. Assessment of Course Quality

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A. General information about the course:

Course Identification	
1. Credit hours:	2
2. Course type	
a.	University <input type="checkbox"/> College <input type="checkbox"/> Department <input checked="" type="checkbox"/> Track <input type="checkbox"/> Others <input type="checkbox"/>
b.	Required <input checked="" type="checkbox"/> Elective <input type="checkbox"/>
3. Level/year at which this course is 12/4 offered:	
4. Course general Description REQUIRED	
5. Pre-requirements for this course (if any): Plant Hormones BOTN 344	
6. Co- requirements for this course (if any): NONE	
7. Course Main Objective(s)	
1) Course Objectives:	
Study of plants in relation human benefits, economy, and industry	
2) Course Contents:	
1- Introduction to economic botany: Groups of Economic Plants	
2- Cereal and fodder Plants:	
3- Fruits, Vegetables and Sugar Plants: Sugar Plants (Sugars, Sugarcane, Beetroot, Sugar Industry, Starch Industry)	
4- Legumes Plants:	
5- Fiber Plants :Anatomy of Fibers, Types of Fibers, Cotton, Flax, Wood Industry, Paper Industry, Synthetic Fibers, Nitrocellulose)	
6- Aromatic Plants: Volatile Oils, Characteristics, Industry: Aromatic Plants (Volatile Oils, Perfume Industry) Medicinal Plants (Medicines from Roots, Stems, Leaves, Flowers, Fruits, Seeds, Folk Medicine) -	
7- Oil Plants: Fatty Oils and Soap and margarine Industry.: (Oil Storage in Plants, Oils, Waxes, Saponification, Rancidity, Soap Industry, Margarine Industry)	



1. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1.	Traditional classroom	33	100%
2.	E-learning	0	0%
3.	Hybrid <ul style="list-style-type: none"> Traditional classroom E-learning 	0	0%
4.	Distance learning	0	0%

2. Contact Hours (based on the academic semester)

No	Activity	Contact Hours
1.	Lectures	11
2.	Laboratory/Studio	22
3.	Field	0
4.	Tutorial	0
5.	Others (specify)	0
	Total	33

B. Course Learning Outcomes (CLOs), Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
1.0	Knowledge and understanding			
1.1	Define all principals, concepts, theories and aspects concerning with Economic botany.	K1.1	Interactive lectures. Classroom discussions Tutorials. Self-learning activities.	MCQs. Short answer questions. True/False. Quizzes. Midterm. Final exam.
1.2	List all characteristics, importance, features, steps of Economic botany aspects.	K1.3	Interactive lectures. Classroom discussions Tutorials. Self-learning activities.	MCQs. Short answer questions. True/False. Compare. Quizzes. Midterm. Final exam.
1.3	Explain all processes, mechanisms, definitions, theories, mode of actions of all Economic botany aspects.	K2.2	Interactive lectures. Classroom discussions Tutorials. Self-learning activities.	MCQs. Short answer questions. True/False. Quizzes. Midterm. Final exam.
1.4	Interpret by using your knowledge and understanding some of Economic botany phenomena.	K3.2	Interactive lectures. Classroom discussions Tutorials. Self-learning activities.	MCQs. Short answer questions. True/False. Quizzes. Midterm. Final exam.
2.0	Skills			
2.1	Examine theoretically or practically the slides, photos, diagrams or statements of Economic botany aspects.	S1.3	Interactive lectures. Classroom discussions Tutorials. Self-learning activities.	MCQs. Short answer questions. True/False. Quizzes. Midterm. Final exam.
2.2	Write a report about any practical or theoretical tasks related to Economic botany science.	S3.3	Interactive lectures. Classroom discussions Tutorials. Self-learning activities.	MCQs. Short answer questions. Quizzes. Midterm. Final exam

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
3.0	Values, autonomy, and responsibility			
3.1	Access multiple sources of information, capture essential information, and distinguish it from extraneous data.	V1.3	Individual assignments. Group discussion. Lab-work. Self-learning activities. Micro-Project Presentation (individual and teamwork)	Group Assignment. Observation. Group Discussion. Theory Home work.

C. Course Content

No	List of Topics	Contact Hours
1.	Introduction to economic botany	1
2.	Cereal and fodder Plants	2
3	Fruits, Vegetables and Sugar Plants.	2
4	Legumes Plants	1
5	Fiber Plants	2
6	Aromatic Plants: Volatile Oils, Characteristics, Industry.	2
7	Oil Plants: Fatty Oils and Soap and margarine Industry.	1
8	Final exam	
Total		11

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	THEORY QUIZ	4	5%
2.	THEORY HOMEWORK	6	5%
3.	PRACTICAL QUIZ	6	5%
4	PRACTICAL HOEMWORK	4	5%
5	THEORY MID.	7	10%

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
6	FINAL PRACTICAL	11	20%
7	FINAL THEORY	13	50%

*Assessment Activities (i.e., Written test, oral test, oral presentation, group project, essay, etc.)

E. Learning Resources and Facilities

1. References and Learning Resources

Essential References	حسانين (2003) النبات الاقتصادي..المكتبة الأكاديمية..القاهرة Simpson B., Ogorzaly M. (2006) Economic Botany. John Wile, New York.
Supportive References	
Electronic Materials	https://plantbiology.siu.edu/facilities/plant-biology-facilities/greenhouse/topics/economic.php https://www.iau.edu.sa/sites/default/files/nbt_qtsdy_economic_botany.pdf
Other Learning Materials	

2. Required Facilities and equipment

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	1 Lecture room(s) for groups of 50 students. 1 Plant Morphology and Anatomy Laboratory / 25 students.
Technology equipment (projector, smart board, software)	AV, data show, Smart Board and Blackboard Platform
Other equipment (depending on the nature of the specialty)	Light microscopes, glassware, chemicals, consumables also scientific papers.

F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	Students, Faculty	Direct (Questionnaire)
Effectiveness of students assessment	Peer Reviewers	Direct (Cross Check marking)
Quality of learning resources	QA. Committee	Indirect (Benchmarking)
The extent to which CLOs have been achieved	Program Leader	Indirect (QA Committee)
Other		

Assessor (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify))

Assessment Methods (Direct, Indirect)

G. Specification Approval Data

COUNCIL /COMMITTEE	Biology Department Board
REFERENCE NO.	BIO2214
DATE	20/9/2022AD

