Course Specification
(Bachelor)

Course Title:	General Biology
Course Code:	BIO101-4
Program:	Biology
Department:	Biology
College:	Science
Institution:	Jazan University
Version:	TP-153 (1) 2024
Last Revision Date:	28 /09/2024

Table of Contents

A. General information about the course:

1. Course Identification

1. Credit hours: (4H)					
4 Hours					
2. Course type					
A.	☐University	☒ College	☐Department	☐Track	☐Others
B.	☒ Required		☐Elective		
3. Level/year at which this course is offered: (level one/1st year)					
4. Course General Description:					
This course describes some of the special topics in biology like diversity among living organisms, applications of biological sciences in our life, Cell Division, Tissue, Nutrition and Fertilization and Development.					
5. Pre-requirements for this course (if any)**:None**					
None					
6. Co-requisites for this course (if any)**:None**					
None					
7. Course Main Objective(s):					
The main objective of this course is to provide the students with basic knowledge and practical skills in general Biology as well as some related applications in the biology fields.					

2. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	75	100%
2	E-learning		
3	Hybrid • Traditional classroom • E-learning	--	--
4	Distance learning		

3. Contact Hours (based on the academic semester)

No	Activity	Contact Hours
1.	**Lectures**	45
2.	**Laboratory/Studio**	30
3.	**Field**	
4.	**Tutorial**	
5.	**Others (specify)**	
Total		75

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

Code	Course Learning Outcomes	Code of PLOs aligned with program	Teaching Strategies	Assessment Methods
1.0	**Knowledge and understanding**			
1.1	**Define** all principals, concepts, theories and aspects concerning with biology.	**PLO 1.1**	Lecture, discussion in class and labs	**Direct:** Quiz and mid-term & final Exams. **Indirect**: student survey
1.2	**Differentiate**(Compare) between different mechanisms, functions, practices and aspects related to biological sciences. .	**PLO 2.1**	Lecture, discussion in class and labs	**Direct:** Quiz and mid-term & final Exams. **Indirect**: student survey
1.3	**Apply** your knowledge of biological science to solve some applied techniques and problems.	**PLO 3.1**	Lecture, discussion in class and labs	**Direct:** Quiz and mid-term & final Exams. **Indirect**: student survey
2.0	**Skills**			
2.1	**Examine** theoretically and practically the slides	**PLO 1.3**	Lecture, discussion in class and labs	**Direct:**

Code	Course Learning Outcomes	Code of PLOs aligned with program	Teaching Strategies	Assessment Methods
	and diagrams related to the biology course			Quiz and mid-term & final Exams. **Indirect**: student survey

C. Course Content

No	List of Topics	Contact Hours
1.	**Introduction**: Characteristics of Living Organisms, branches of biology, Scientific Method, and Application of Biological science	3
2.	**Chemical structure of living organisms:** organic molecules, inorganic molecules and Biological Reactions and Enzymes.	3
3.	**Cell Structure and Function:** Prokaryotic cells, Eukaryotic cells, Cell membrane, Mitochondria, Endoplasmic Reticulum, Ribosomes, Golgi Bodies, Lysosomes, chloroplast,Peroxisomes, Plastids structure, Cytoskeleton, Centrioles and Nucleolus.	4.5
4.	**Tissues:** Animal Tissues, Epithelia tissues, Connective tissues, muscular tissues, nervous tissues and plant	3
5.	**Systematics:** Classification, of Eubacteria, Plant Kingdom, Protista Kingdom and Animal Kingdom.	4.5
6.	**NUTRITION:** Autotrophs, Photoautotrophs, Chemoautotrophs, Osmosis, Diffusion and active transport, digestion in human and liver functions	3
7.	**Metabolism:** Anabolism, photosynthesis, catabolism, cellular respiration	4.5
8.	**Cell Division:** mitosis division and meiosis division**.**	4.5
9.	**Osmoregulation and Excretion:** Excretion in invertebrates, Excretion in human and Excretion in plants	4.5
10.	**Reproduction:** sexual reproduction, asexual reproduction human male genital system and human female genital system	3
11.	**Fertilization and Development:** FERTILIZATION & DEVELOPMENT, Ex fertilization, internal fertilization	3
12.	**Genetics** Genetics: Monohybrid, Law of Segregation, Dihybrid crosses, L Independent Assortment and Genetics of Sex	4.5
Total		45

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Theoretical Assignment	3	5%
2.	Theoretical quiz	5	5%
3.	Mid-term exam	6	10%
4.	Lab Quiz	8	5%
5.	Practical assignment	9	5%
6.	Final practical exam	12	20%
7.	Final exam	13	50%
Total			100%

*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	▪ Introduction of biology ▪ Introduction of biology (organization, reproduction and genetics)Nabih A Baeshen; Zarrg I, Al fifi and Mohammed N. Baeshen fifth edition(2011). Jeddah 21589 box 80056 K.S.A ▪ Introduction practical biology Introduction practical biology of biology (organization, reproduction and genetics) Nabih A Baeshen; Zarrg I, Al fifi and Mohammed N. Baeshen first edition (2012) Jeddah 21589 box 80056 K.S.A ▪ Biology, Campbell, N. A., 8th edition, The Benjamin / Cummings Publishing Company, USA. (2007). ▪ Biology, Solomon et al., John Wiley and Sons Inc., New York.USA. (2002). ▪
Supportive References	None
Electronic Materials	▪ . https://www.ck12.org/biology/ ▪ Other Web sites of Biology and of Wikipedia
Other Learning Materials	▪ Other learning material such as computer-based programs/CD, professional standards or regulations and software

2. Required Facilities and equipment

Items	Resources
facilities	Classrooms and laboratories

Items	Resources
(Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	
Technology equipment (projector, smart board, software)	Smart board, Smart Board and projector
Other equipment (depending on the nature of the specialty)	Light microscopes, glassware, chemicals, consumables, dissection tools -Blood grouping kits Tissue slides Animal organs Models Preserved dissected rabbits and Frog (Toads)

F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	Assessor	Assessment Methods
Effectiveness of Students assessment	Students, Peer and program leader	Indirect (CES) - Indirect peer evaluation
Quality of learning resources	Students, Program assessment committee	Direct/ Indirect
The extent to which CLOs have been achieved	Students, Faculty members	Indirect
Other		

Assessors (Students, Faculty, Program Leaders, Peer Reviewers, Others (specify)

Assessment Methods (Direct, Indirect)

G. Specification Approval

COUNCIL /COMMITTEE	**BIOLOGY DEPARTMENT BOARD**
REFERENCE NO.	**BIO2413**
DATE	**29/09/2024**