



SYLLABUS

Course Code	Course Num.	Course Name	Credit Hours	Lec.	Lab.	Tut.	Private study	Pre-requisites	Course Level	Teaching Language
BIO	101	General Biology	4	3	2	0	4-6	-	1	English

A. Course Description

This course has titles which will introduce the basic concepts for all courses of biology in all educational levels. So, this course involves a tour in the cell, macromolecules, homeostasis, plant backgrounds, principles of genetics and biodiversity.

B. Course Outcomes

At the end of this course the student will be able:

1. To introduce students into the long-term key concepts in biology which represents general source for their continuing and completing education.
2. To acquire the basic and fundamental knowledge of biological terms.

C. References:

Required Textbook

- *Campbell; 10th Edition, A. Reece, J. B-Pearson Biology, 2013.* International Edition. ISBN-13: 978-0321775658.
- *Laboratory Manual for General Biology, 5th Edition, James W. Perry, 2006.* ISBN-13: 0534380250

Other references:

- *Life, the Science of Biology, 8th Edition.* Sadava et al. 2008. Freeman & Co.

Course Website: Google Classroom Webpage: <http://www.imamm.org/>

D. Topics Outline

D1. Theoretical Topics

1. *A tour in the cell: Cell membrane structure and function*
2. *The cell cycle: Mitosis, Meiosis.*
3. *Macromolecules: structure and function*
4. *Introduction to Animals and Plants Physiology.*
5. *Hemostasis and hormonal regulation*
6. *Plant structure, growth and development.*
7. *Cellular energy: (Photosynthesis. Cellular respiration).*
8. *Biodiversity: Bacteria and Archeae, Protista and fungi*



9. *Plant diversity.*
10. *Animal tissues.*
11. *Plant tissues.*
12. *Introduction to Genetics.*
13. *Introduction to animal diversity: Invertebrates, vertebrates*

D2. Laboratories Topics

1. *Safety and Laboratory, Introduction to Measurement.*
2. *Structure and types of Microscopes.*
3. *Molecular Models, Structure of Animals and Plants Cells.*
4. *Animal and Plant Tissue Slides.*
5. *Kingdom Fungi Slides.*
6. *Kingdom Protista Slides.*
7. *Kingdom Monera.*
8. *Cell Cycle and Mitosis & Meiosis.*
9. *Bacteria and Viruses.*
10. *DNA, Human Organs.*
11. *Osmosis and Diffusion.*
12. *Genetics I: Meiosis & Mendelian Genetics.*
13. *Genetics II: Human Genetics.*

E. Office Hours

Office hours give students the opportunity to ask in-depth questions and to explore points of confusion or interest that cannot be fully addressed in class.

F. Exams & Grading System

The semi-official dates of the exams for this course are:

- **Midterm 1:** 6th or 7th week.
- **Midterm 2:** 11th or 12th week.
- **Quizzes & Homework:** During the semester.



- **Final Lab Exam:** 13th or 14th week.
- **Final Exam:** 16th week.

Your course grade will be based on your semester work as follows:

Midterm 1: 15 %	Midterm 2: 15 %	Final Exam: 40 %	Final Lab Exam: 20%
Quizzes, Homework, Attendance & Participation: 10 %			

The grading distribution:

A ⁺	A	B ⁺	B	C ⁺	C	D ⁺	D	F
[95, 100]	[90, 95)	[85, 90)	[80, 85)	[75, 80)	[70, 75)	[65, 70)	[60, 65)	[0, 60)

G. Student Attendance/Absence

Only three situations will be considered as possible excused absences:

- Occurrence of a birth or death in the immediate family will be excused. ("Immediate family" is defined by the University as spouse, grandparents, parents, brother, or sister).
- Severe illness in which a student is under the care of a doctor and physically unable to attend class will be excused. Students are not excused for a doctor's appointment. Do not make appointments that conflict with rehearsals. Notes from the University Health Center will be accepted.

[Executive Rules for Study Regulations and Exams](#)

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