

Alanya Alaaddin Keykubat University | Rafet Kayış Faculty of Engineering
Genetic and Bioengineering Department
2023-2024 Fall Semester

Syllabus

Code/Name	GBM101 Biology I
Type	Required
Credit/ECTS	7/7
Hour per Week	3 (3+0+0)
Level/Year	Undergraduate/3
Semester	Fall
Classroom	D306
Content	Basic principles of life; Atomic basis of life and biomolecules; cell structure and function; cell metabolism; transport of death across the cell membrane; photosynthesis, fermentation, and respiration; cell pack; gene expression control; evolution formation and evidence; the beginning and history of life; Ecological concepts and ecosystems.
Prerequisites	-
Textbooks	<i>Campbell, N.A., Reece, J.B., "Biology", Campbell-Reece, San Francisco</i>
Objectives	<ul style="list-style-type: none">• To gain information about the common characteristics of living things, the integrity and diversity of life, and the scientific method.• To learn the structure of the cell, the differences between nucleated and non-nucleated cells, the functions of organelles, and the endosymbiosis theory.• To gain knowledge about reactions, energy conversions, enzymes, and the regulation of enzyme activities.• To learn photosynthesis, stages of cellular respiration, fermentation, and the connection between anabolism and catabolism reactions.
Course Outcomes	In this course you will be able to: CO1 Gain basic biology knowledge. CO2 Obtain basic information about study subjects related to biology. CO3 Understand the vital functions of living things. CO4 Understand the relationships of living things with each other and with the environment. CO5 Gaining a benefit-harm approach by establishing a relationship between nature and humans.

Weekly Schedule of Topics

W	Topic
1	Introduction: Themes in the Study of Life
2	The Chemical Context of Life
3	Water and the Fitness of the Environment, Carbon and the Molecular Diversity of Life
4	The Structure and Function of Large Biological Molecules
5	A Tour of the Cell
6	Membrane Structure and Function
7	An Introduction to Metabolism
8	Midterm
9	Cellular Respiration: Harvesting Chemical Energy
10	Cellular Respiration: Harvesting Chemical Energy

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11	Cellular Respiration: Harvesting Chemical Energy, Fermentation
12	Photosynthesis
13	Cell Communication
14	The Cell Cycle
15	Meiosis and Sexual Life Cycles
16	Final

Professional Contribution

Ability to understand basic biological concepts and the basic rules of life

Contribution to Program Outcomes*

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C01	5	3	3	3	5	4	4	5	5	2	5
C02	5	4	3	4	5	4	4	5	5	2	5
C03	4	4	3	4	5	4	4	5	5	2	4
C04	5	4	4	4	5	4	4	5	5	4	5
C05	5	4	3	4	5	4	4	5	5	4	5

* Contribution Level | 0: None | 1: Very Low | 2: Low | 3: Medium | 4: High | 5: Very High

Special Conditions -

Requirements -

Course Policy

- Be in the class on time.
- English should always be used to communicate with one another.
- At least 70% attendance is required, otherwise a grade of **DZ** will be assigned.
- You must prepare a project, otherwise you will not be graded for the project.

Cheating & Plagiarism

- Copying or letting someone copy your work on exams and assignments is cheating.
- Cutting and pasting text, figures, and tables from web sources or any other electronic source is plagiarism.
- The consequence of academic dishonesty is to receive a grade of **FF** for the course.

Evaluation

Midterm Exam	40%
Final Exam	60%
Total	100%

Rubric

A rubric will be announced before projects. The rubric has 2 main parts for the grading: technical assessment and writing.

Instructor

Name/Surname	Şurhan GÖL	Email	surhan.gol@alanya.edu.tr
Room	131	Office Hours	Tuesday 14:30-15:15 and Wednesday 10:30-11:15/15:30-16:15

Prepared by Şurhan GÖL on June 2nd, 2024