

**SCIE 103 (02) LIFE SCIENCES**

Fall 2018

**1. Course Information**

<b>Instructor:</b>	Serkan Kir, SKIR@KU.EDU.TR
<b>KU Credits:</b>	4.00
<b>ECTS Credits:</b>	6.00
<b>Prerequisite(s):</b>	
<b>Class Location &amp; Meeting Times:</b>	- Tuesday, Thursday 11:30-12:45
<b>PS (Yes/No):</b>	No
<b>DS (Yes/No):</b>	No
<b>Lab (Yes/No):</b>	Yes
<b>Language of Instruction:</b>	English
<b>Office Hours:</b>	Wed 10:00-12:00

**2. Course Description**

General overview of living organisms. Selected topics on the control of cellular mechanisms. Gene technology and evolution.

**3. Course Overview**

The goal of SCIE 103 is to provide the students with a foundation of basic principles of the biological sciences and a general overview of living organisms. The objective of this class is to bring a conceptual understanding in the following topics: chemical properties of life, cell structure and function, metabolism, regulation of gene expression, hereditary and molecular genetics and mechanisms of evolution and cancer.

Tentative Course Outline:

WEEK	SUBJECT
Week 1	The Science of Biology
Week 2	The Chemistry of Life
Week 3	Molecules of Life
Week 4	Cells
Week 5	Energy and Life
Week 6	Photosynthesis: Acquiring Energy from the Sun
Week 7	How Cells Harvest Energy from Food
Week 8	Mitosis
Week 9	Meiosis
Week 10	Foundations of Genetics
Week 11	DNA: The Genetic Material
Week 12	How Genes Work
Week 13	The New Biology
Week 14	Evolution and Natural Selection

Chapters 1-14 from the textbook will be covered.

**4. Course Learning Outcomes (CLOs):**

**CLO #** Upon successful completion of this course, students will be able to...

- 1 Understanding the characteristics of Life
- 2 Understanding the basic principles of Evolution
- 3 Understanding the classification of living things
- 4 Evaluating different scientific approaches
- 5 Knowing the basic chemical context of life
- 6 Knowing the basic components of a cell
- 7 Understanding the basic mechanisms that control cell metabolisms, cell growth and cell division
- 8 Learning gene and genome concepts, how it is regulated, why it is important
- 9 Conceptual understanding of cancer
- 10 Learning the applications of biotechnology and evaluating the benefits and risks of genetically modified foods

## 5. Assessment Methods

Method	Description	Weight %
Midterm Exam	Midterm 1	20.00
Midterm Exam	Midterm 2	25.00
Laboratory	Laboratory	21.00
Final Exam	Final Exam	30.00
Attendance	Attendance	4.00
<b>Total:</b>		100.00

## 6. Instructional Material and Learning Resources

- Essentials of the Living World
  - Author:** George Johnson
  - Publisher:** McGraw Hill
  - Material Type:** Textbook
  - Material Status:** Recommended
- Active Use of Course Page on Blackboard: No Service Available
- KOLT Tutoring: No Service Available

## 7. Course Schedule

Meeting Times	Subject
---------------	---------

## 8. Student Code of Conduct and Academic Grievance Procedure

[Student Code of Conduct](#)

[Statement on Academic Honesty with Emphasis on Plagiarism](#)

[Academic Grievance Procedure](#)

## 9. Course Policies

**ATTENDANCE:** Students are expected to attend all class sessions. Roll will be taken each class period. Missing more than 9 classes (including the excused absences) will automatically disqualify you from 4% attendance. **EXAMS:** Cell phones are not allowed in the classroom during the exams. In case of a missed exam that is documented to be due to an emergency, you must make up the exam. Letter grades will be assigned according to catalogue system. **CONDUCT:** Academic honesty is of the highest importance. Plagiarism or cheating in any way will result in an automatic F grade and disciplinary action by the Koç

University. Use of cell phones for calls or texting during the class period is forbidden. There is zero tolerance for class disruption, such as talking to your neighbor or late arrival to class.

## 10. Other

### INFORMATION ABOUT LABORATORIES

Laboratory Coordinator: Nazmi Yılmaz

Phone: 0 212 338 1726

Email: [nayilmaz@ku.edu.tr](mailto:nayilmaz@ku.edu.tr)

Office: SCI 136

Science 103 lectures are accompanied by Laboratory Work (Lab).

During the FIRST week of classes, students must attend a mandatory laboratory orientation at their scheduled Lab Hour in SCI Z32.

6 Laboratory experiments will be performed during the semester. All Laboratory sessions will take place in room Scie Z32. The experiment manual will be available at the copyland.

You can also access the experiment sheets in the course website: <http://naturalscience.ku.edu.tr/>.

It is compulsory to attend the Laboratories. Each missed lab session, with or without a legitimate excuse accepted by the university, results in a reduction of your final course letter grade by one notch. A grade of at least 60% is required in Lab to pass the course, regardless of your performance in the rest of the course.

Whenever you have an excuse for the missing lab, you have to contact Nazmi Yılmaz ([nayilmaz@ku.edu.tr](mailto:nayilmaz@ku.edu.tr)) within 3 days and provide the relevant documents in order to arrange a make-up session. It is your responsibility to ask for a lab make-up appointment. Late requests for make-ups will not be taken into consideration.