

American University of Beirut
Faculty of Arts and Sciences
Department of Biology
BIOL 295
Summer Undergraduate Research
-4 credits-

Catalogue Entry

BIOL 295: Summer Undergraduate Research Course 4.0; 4 cr.

A course intended to train and recruit well-prepared students for graduate work in biology at AUB. Students will conduct a research project during the summer term, and then present and defend their findings. *Prerequisites: completion of 80/120 credits, a minimum average of 75 in the major, and consent of instructor. Each summer.*

Course description

The student should seek the support of a faculty member for supervision. With the help of their supervisors, students should decide on a research project and submit a research proposal for departmental approval prior to registration. Each student's project will be supported by funds recovered from their tuition fees. Funds will be managed by supervisors. The student will be working full time on an individual research project and expected to report to their supervisor regularly. Students are encouraged also to attend seminars given by guest speakers or faculty members in the biology or other departments during the summer session depending on the availability. Students will present their findings at the end of the summer (between the end of the summer term and beginning of the fall term) by giving an oral presentation and a poster presentation. The students' presentations will be assessed by faculty members who are supervising summer students registered in the course.

Eligibility

Biology students who have completed a minimum of 80/120 credits with a cumulative average of 75 in biology can register for the course.

Duration

The course will be offered during summer from 15 June until 15 September including a one month extension of the summer session to be able to complete the research project.

Syllabus content

The content should focus on research and depends on each research project. All research proposals should include a short introduction/background, explain how the project addresses a clear hypothesis, specific aims, and a well-defined time-table.

Learning outcomes

The students will:

- 1- learn how to work safely, ethically and efficiently research methods directly related to their research project (PLOs 1b-1d, 5 and 6).
- 2- investigate scientific questions as part of a well-organized research project (PLOs 5).
- 3- design and conduct experiments (PLO 5b, c).

- 4- properly record observations (PLO 1b, c, 5d).
- 5- interpret experimental data using appropriate tools (PLO 5e).
- 6- present and defend their findings among their peers and the scientific community (PLOs 7a,b, d).
- 7- be better prepared for undertaking graduate work in biology at AUB (PLOs 5).

Assessment

The students will be assessed as follows:

- Evaluation by the supervisor: 40%
- Scientific record keeping 20%
- Seminar presentation: 20%
- Poster presentation: 20%

-The student must submit a final report to the supervisor at the end of the session. The supervisor will fill an evaluation form and grade the student's personal effort, laboratory skills, and progress and productivity during the session (to meet learning outcomes 1-3).

-Laboratory records will be reviewed regularly by the supervisor and remain in the care of the department (to meet learning outcome 4).

-A panel of at least three professors will evaluate and grade the students' seminars and posters in the end of the session (to meet learning outcomes 3 to 5).