

International Bachelors of Excellence (IBEX) summer internship at the Blaustein Institutes for Desert Research, Ben-Gurion University of the Negev, Israel

Syllabus

Course name: International internship at BIDR, Israel.

Credits: 6

Course description and goals:

The program will extend for eight weeks, at which students experience state-of-the-art multidisciplinary research as interns at The Jacob Blaustein Institutes for Desert Research (BIDR), Israel. During this internship the students will, conduct experiments, learn to analyze results, and arrange the conclusions. The scientific climax of the program will be a joint symposium, at which all the students will present the work to their fellows and supervisors. Concurrently, the students will be exposed to various social and cultural activities, unique to the Negev desert area. Participating students will experience new, brief, yet intense view of graduate studies in Israel, and specifically at the BIDR campus of Ben-Gurion University. In addition, this program aspires to provide US undergraduate students with the opportunity to gain academic research experience and engage in scientific academic life, including attending weekly seminars and utilizing top-notch scientific equipment and facilities, under direct supervision of BIDR researchers. The course objectives are to:

- Provide unique educational training in a range of research disciplines for excellent undergrad students in the fields of natural sciences and engineering.
- Broaden the cultural scope of bright young scholars by an international experience in Israel.

Research projects will be in the fields of (the student will have to choose one of these topics):

- Agriculture,
- Plant sciences,
- Aquaculture,
- Microalgal biotechnology,
- Desalination and water treatment,
- Hydrology and environmental microbiology,
- Solar energy,
- Environmental physics,
- Ecology,
- Evolutionary biology,
- Conservation,
- Wildlife management.

Prerequisites:

The internship is offered to international undergraduate students (pre-junior/ senior year) in the fields of life-sciences, exact-sciences and engineering. Due to the limited number of participants, applicants will be ranked based on their (1) GPA, (2) fields of interests, as will be indicated in their letter of motivation, (3) relevant academic courses completed prior to the program, as indicated in their grade transcript, (4) relevant previous professional experience, as indicated in their CV.

Course requirements:

1. Participation in active research with the assigned lab for five days per week for eight weeks (unless emergency vacancies are required). Attending weekly seminars offered to the program participants.
2. Submission of a final report of up to 10 pages (references excluded), including: (1) research goals and significance, (2) scientific background, (3) research results and their analysis, (4) conclusions and suggestions for further research.
3. Presenting the research in a 15-min oral presentation at the concluding symposium that will be held at the last week of the program.

Grading: Pass/fail. Upon completion of the course requirements, the grade will be granted by the PI of the research group at which the project will take place.

Responsible faculty: Each student will have an academic advisor as the PI heading the lab at which the research project will take place.

The faculty members that will be overlooking the course are:

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