



University of Nicosia, Cyprus

Course Code BIOL-491	Course Title Research Project I	ECTS 10
Department Life and Health Sciences	Semester Fall	Prerequisites Completion of all other required Courses
Type of Course Required	Field Biology	Language of Instruction English
Level of Course 1 st Cycle	Year of Study 4 th	Lecturer Dr. Demoliou Catherine + Assigned supervisor
Mode of Delivery Face-to-face	Work Placement N/A	Co-requisites None

Objectives of the Course:

This course is composed of two parts and aims to introduce students to the practices of scientific research. This part of the course together with BIOL-491 Research Project II, are required for completion of the Research Project required for the award of the Degree. The main objectives of this part of the course are to:

- Demonstrate the steps of scientific research and discuss applications of scientific research design in the biological sciences.
- Demonstrate how to prepare and plan a research project.
- Enable students to develop information literacy skills (defining information needs, researching for information).
- Enable students to develop skills in planning, writing a research proposal and in making a risk assessment of expected results.
- Make students aware of the ethical issues relevant to writing an undergraduate research paper including integrity, copyright and citation.

Learning Outcomes:

After completion of the course students are expected to be able to:

1. Discuss application of the scientific method to biosciences research described in scholarly articles and differentiate theory to hypothesis development and the steps of the scientific process.
2. Express ethical considerations related to human subject research and to the use of published information ethically.

3. Distinguish between qualitative and quantitative research, the merits of various research designs and assess critically published research papers.
4. Identify and propose a researchable project and prepare a research proposal incorporating the relevant components and scientific literature citations.
5. Access Library's services and collections (electronic and print) and communicate information using Microsoft Office (Word, Excel and PowerPoint).

Course Contents:

1. Getting started: an introduction to research and research hypothesis
2. Research Ethics
3. Literature resources and availability
4. Reviewing and reporting published literature
5. Research Design; Testing; Data Gathering and Recording
6. Qualitative/Quantitative Data Analysis and methods of data presentation (PowerPoint, Excel)
7. Statistical Tests/analysis of research results; SPSS
8. Writing a research proposal/dissertation
9. Evaluation of published research papers
10. Evaluation of published research papers

Research Proposal: In addition to attending a series of lectures, the student is required by the end of the course (earlier is acceptable), to have submitted and approved by his/her assigned supervisor a written proposal on his/her research project assigned, following specified guidelines: relevant background and literature, aims and objectives of the project, suggested procedures and methodologies to be used and a risk analysis of expected results, literature source citation.

Learning Activities and Teaching Methods:

Lectures, discussions; Analysis and presentation of scientific data, results and papers; Writing of a research proposal on assigned project.

Assessment Methods:

Assignments and Final exam (40%); Research Project Proposal (60%).

Required Textbooks/Reading:

Authors	Title	Publisher	Year	ISBN
WC Booth, JM Williams, GG Colomb	The Craft of Research	University Of Chicago Press	2003, 2 nd ed.	ISBN: 0226065685

Recommended Textbooks/Reading:

Authors	Title	Publisher	Year	ISBN
1. JW Creswell	Research Design: Qualitative, Quantitative, and Mixed Methods Approaches	Sage Publications	2002, 2 nd ed.	076192442 6

2. KL Turabian, WG Booth, GG Colomb, JM Williams	A Manual for Writers of Research Papers, Theses, and Dissertations	University Of Chicago Press	2007, 7 th ed.	022682337 7