



## University of Nicosia, Cyprus

<b>Course Code</b> BISC-591	<b>Course Title</b> Research Report	<b>ECTS</b> 8
<b>Department</b> Life and Health Sciences	<b>Semester</b> Summer	<b>Prerequisites</b> To have finished all required courses
<b>Type of Course</b> Elective	<b>Field</b> Biomedical Sciences/ Bioscience (Immunology)	<b>Language of Instruction</b> English
<b>Level of Course</b> 2 <sup>st</sup> Cycle	<b>Year of Study</b> 2 <sup>nd</sup>	<b>Lecturer</b> Catherine Demoliou (coordination) and assigned supervisor
<b>Mode of Delivery</b> Hands-on Research	<b>Work Placement</b> N/A	<b>Co-requisites</b> None

### Objectives of the Course:

This course aims to introduce students to the practices of scientific research. The main objectives 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.
- Introduce the ethical issues relevant to writing a 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
2. Differentiate theory to hypothesis development and the steps of the scientific process.
3. Express ethical considerations related to human subject research and to the use of published information.
4. Distinguish between qualitative and quantitative research, the merits of various research designs and assess critically published research papers.
5. Identify and propose a researchable project and prepare a research proposal incorporating the relevant components and scientific literature citations.
6. Access Library 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. Discussion on 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 submit a written report on a research topic that has been assigned to the student by his/her supervisor. The research report has to be written following specified guidelines: relevant background and literature, aims and objectives of a research 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
<a href="#">Prof George K. Toworfe</a>	Methods in Scientific Research & A Guide to Writing an Excellent Paper	CreateSpace Independent Publishing Platform	(2014)	ISBN-10:149749978X ISBN-13: 978-1497499782
KL Turabian, WG Booth, GG Colomb, JM Williams	A Manual for Writers of Research Papers, Theses, and Dissertations	University Of Chicago Press	8 <sup>th</sup> Ed. (2013)	ISBN-10: 0226816389 ISBN-13: 978-0226816388

**Recommended Textbooks/Reading:**

Authors	Title	Publisher	Year	ISBN
E. Bright Wilson	An Introduction to Scientific Research	Dover	Rev Sub	ASIN:

	[Kindle Edition]	Publications	edition (2012)	B00CB2MKDA
<a href="#">Michael P. Marder</a>	Research Methods for Science	Cambridge University Press;	1 edition (2011)	<b>ISBN-10:</b> 0521145848 <b>ISBN-13:</b> 978-0521145848
<a href="#">Stephen S. Carey</a>	A Beginner's Guide to Scientific Method	Cengage Learning;	4 edition (2011)	<b>ISBN-10:</b> 1111305552 <b>ISBN-13:</b> 978-1111305550
<a href="#">John W. Creswell</a>	Research Design: Qualitative, Quantitative, and Mixed Methods Approaches	SAGE Publications , Inc;	Fourth Edition (2013)	<b>ISBN-10:</b> 1452226105 <b>ISBN-13:</b> 978-1452226101