



## University of Nicosia, Cyprus

<b>Course Code</b> BISC-592	<b>Course Title</b> Research Thesis	<b>ECTS</b> 15
<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/ Biosciences; (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> Dr. Demoliou Catherine (coordination) + 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 intent is to guide students to the practices of research using the knowledge and subject specific skill gained through the programme. The main objectives of the course are to:

- Give students the opportunity to carry out an independent research project
- Enable student to collect, report and interpret experimental data
- Enable students to communicate in writing and to defend orally their findings in a scientific manner.

### Learning Outcomes:

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

1. Demonstrate the procedures and practices of scientific research.
2. Apply skills to do literature search and evaluate published scientific findings.
3. Formulate a hypothesis and compare published specific research approaches and methodologies to design experiments and test the research hypothesis.
4. Plan and carry out independently experimental techniques/procedures.
5. Measure and record experimental data, appraise, critically evaluate and interpret experimental results and evaluate these on the basis of published literature.
6. Write and orally communicate and debate the outcome of the research project in a scientific and professional manner.
7. Apply moral and ethical issues in research contact and research reporting.

### **Course Contents:**

#### **Thesis:**

The student may select or propose a research project for his/her thesis. Each project has to have the approval of the faculty who will supervise the student during his research. Students have also the option to do research within their work place. Having chosen a research topic, the student is expected to proceed with writing a five page proposal for the topic and the research approach(es) to be use. The student must begin the execution of his/her project as early as possible with a completion date the last week of the term. The hands on execution of the research project will require a more independent nature of laboratory hands-on work that is based on student responsibility and initiative and on discussions with the assigned supervisor.

#### **Learning Activities and Teaching Methods:**

Independent laboratory or field research on an assigned project; Literature searches. One-to-one discussions and review of results and progress made with assigned supervisor. Writing of a final Thesis.

#### **Assessment Methods:**

For award of credits the student is required to submit, a final Thesis (50,000 words) and to orally present his/her research project. The Thesis should detail the research conducted by the student and will be judged by the soundness of the research procedure followed, and the thoroughness and clarity of thought evident in analyzing and critically evaluating the project results. It should be written in the style of a major scientific journal in the area, following the specified guidelines provided. The student will present and orally defend his research project to a Committee.

1. Independent Research on assigned Project (50%)
2. Final Research Report (30%)
3. Oral presentation (20%)

#### **Required Textbooks/Reading:**

<b>Authors</b>	<b>Title</b>	<b>Publisher</b>	<b>Year</b>	<b>ISBN</b>
Prof George K. Toworfe	Methods in Scientific Research & A Guide to Writing an Excellent Paper	CreateSpace Independent Publishing Platform	(2014)	<b>ISBN-10:</b> 149749978X <b>ISBN-13:</b> 978-1497499782

**Recommended Textbooks/Reading:**

<b>Authors</b>	<b>Title</b>	<b>Publisher</b>	<b>Year</b>	<b>ISBN</b>
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)	<b>ISBN-10:</b> 0226816389  <b>ISBN-13:</b> 978- 0226816388
E. Bright Wilson	An Introduction to Scientific Research [Kindle Edition]	Dover Publications ;	Rev Sub ed. (2012)	<b>ASIN:</b> B00CB2MKD A
Michael P. Marder	Research Methods for Science	Cambridge University Press;	(2011)	<b>ISBN-10:</b> 0521145848  <b>ISBN-13:</b> 978- 0521145848
Stephen S. Carey	A Beginner's Guide to Scientific Method	Cengage Learning;	4 ed. (2011)	<b>ISBN-10:</b> 1111305552  <b>ISBN-13:</b> 978- 1111305550
John W. Creswell	Research Design: Qualitative, Quantitative, and Mixed Methods Approaches	SAGE Publications , Inc;	4 <sup>th</sup> Ed. (2013)	<b>ISBN-10:</b> 1452226105  <b>ISBN-13:</b> 978- 1452226101