



<b>Course Code</b> MED-405	<b>Course Title</b> Research Project	<b>ECTS Credits</b> 6
<b>Department</b> Life and Health Sciences	<b>Semester</b> Fall (Semester 7)	<b>Prerequisites</b> None
<b>Type of Course</b> Required	<b>Field</b> Medicine	<b>Language of Instruction</b> English
<b>Level of Course</b> Undergraduate	<b>Year of Study</b> 4th	<b>Lecturer(s)</b> Dr Constantina Constantinou
<b>Mode of Delivery</b> Face-to-face	<b>Work Placement</b> N/A	<b>Co-requisites</b> None

### Objectives of the Course:

The main objective of the **MED-405 Research course** is to support students to develop the critical thinking skills needed to succeed in academia and clinical practice. Through carrying out a Narrative Literature Review the students will study a topic outside the core curriculum in depth and will develop self-directed learning skills and critical appraisal skills. The MED-405 Research course involves the completion of a 4000 word self-directed Narrative Literature Review and aims to familiarise students with the process involved in carrying out a literature review for journal publication and/or for developing research hypotheses that will develop into research proposals and research projects.

The ability to analyse and criticise published research articles is essential to succeed as a physician. As progress in evidence-based medicine is driven by research, it is imperative that research should be integrated to the curriculum of all medical schools. Furthermore some students may decide to progress to or combine a career in academic research following the completion of their MD degree.

Therefore we would like to encourage all of our students to embrace this opportunity and enrich their medical education through not only the development of a high quality Narrative Literature Review that is a requirement of the current course but further through the pursuit of a publication in an academic journal such as a journal targeted for medical students.

### Learning Outcomes:

After completion of the course students should be able to:

1. Access, analyse and evaluate published research papers.
2. Develop and apply analytical and critical appraisal skills.
3. Develop self-directed learning skills.
4. Study, in depth, a topic of particular interest outside the core curriculum.
5. Describe the aims and structure of a narrative literature review.
6. Write a narrative literature review at the level of a publication in a journal.
7. Describe how a Narrative Literature Review can support the development of research hypotheses and research proposals.

8. Describe the ethical issues relevant to writing a research paper including integrity, copyright and citation.
9. Consider potential career paths.

#### **Course Contents:**

- Introduction to the course.
- The structure of the Narrative Literature Review.
- Carrying out a search for a Narrative Literature Review.

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

Lectures, one-to one meetings with Course Lead, self-directed learning.

#### **Assessment Methods:**

4000 word Narrative Literature Review article (100%).

#### **Required Reading:**

##### **Background reading on non-communicable diseases**

1. Noncommunicable diseases Factsheet. World Health Organisation. January 2015.
2. World Health Organization. Global Health Observatory (GHO): NCD mortality and morbidity. Available from: [http://www.who.int/gho/ncd/mortality\\_morbidity/](http://www.who.int/gho/ncd/mortality_morbidity/)

##### **Importance and guidelines for writing review articles**

3. Ferrari, R. (2009) 'Writing narrative style literature reviews', *Medical Writing*, vol. 24, pp. 231-234.
4. Mayer, P. (2013) 'Guidelines for writing a review article.' Available at [http://www.plantscience.ethz.ch/education/Masters/courses/Scientific\\_Writing](http://www.plantscience.ethz.ch/education/Masters/courses/Scientific_Writing)
5. Pautasso, M. (2013) 'Ten simple rules for writing a literature review', *PLOS Computational Biology*, 9(7), pp. e100319.

##### **Sample review articles**

6. Ford, A.C., Lacy, B.E. and Talley, N.J. (2017) 'Irritable bowel syndrome', *The New England Journal of Medicine*, 376(26), pp. 2566-2578.
7. Shah, R., Rosso, K. and Nathanson, S. D. (2014) 'Pathogenesis, prevention, diagnosis and treatment of breast cancer', *World Journal of Clinical Oncology*, 5(3) pp. 283-298.
8. De Benedictis, D. and Bush, A. (2017) 'Asthma in adolescence: is there any news?', *Pediatric Pulmonology*, 52, pp. 129-138.
9. Giordano, S. H. (2005) 'A review of the diagnosis and management of male breast cancer', *The Oncologist*, 10, pp. 471-479.
10. Randolph, C. (2013). 'Pediatric exercise-induced bronchoconstriction: contemporary developments in epidemiology, pathogenesis, presentation, diagnosis, and therapy', *Curr Allergy Asthma Rep*, 13, pp. 662-71.
11. Fan, L., Strasser-Weippl, K., Li, J., St Louis, J., Finkelstein, D., Yu, K., Chen, W., Shao, Z. and Goss, P. (2014). 'Breast Cancer in China', *The Lancet*, 15, pp. e279-e289.
12. Lin, Q-J., Yang, F., Jin, C., and Fu D-L. (2015) 'Current status and progress of

pancreatic cancer in China', *World Journal of Gastroenterology*, 21(26) pp. 7988-8003.

- 13.** Gallardo-Rincón D, Espinosa-Romero R, Muñoz WR, Mendoza-Martínez JR, del Villar-Álvarez S, Oñate-Ocaña L, Isla-Ortiz D, Márquez-Manríquez JP, Apodaca-Cruz A, Meneses-García A. (2016). 'Epidemiological overview, advances in diagnosis, prevention, treatment and management of epithelial ovarian cancer in Mexico.' *Salud Publica Mex* 58, pp. 302-308.