Subject Outline: Research Methods 1

THE AUSTRALASIAN COLLEGE OF DERMATOLOGISTS

Course: Master of Cosmetic Dermatology (Coursework)

Subject: Research Methods I (Fundamental)

Credit Points: 3

Co-requisite(s): Nil

Year/Semester Delivered: 1/1

Subject Outline:
The subject is supported by the online content/resource module “Research Methods I – Introduction to Evidence Based Medicine”.

The subject focuses on an introduction to EBM and its common principles.

The subject introduces the student to the basic knowledge required to understand and appreciate the concepts used in medical research and medical publications. It provides a stepping stone to the more demanding materials presented in Research Methodology II and III

Each of the sections covered in this subject deals with the topics in a non-mathematical way.

This subject covers the following broad concepts and principles of Evidence based medicine. Refer to the online content module for a complete listing of topics that will be covered during teaching sessions.

- Overview of the concept of evidence based medicine and its role is modern medical practice
- An A to Z of commonly used terms and concepts and their meanings and/or application
- Basic statistical approaches and tools commonly used in research. Topics covered in an introductory way include parametric and non-parametric statistical approaches, basic analysis techniques and Quality of Life Assessment as a tool in research

- Experimental design including simple explanations of some of the more commonly utilized experimental design types. Among those included are Randomised Double Blind Trials, Cohort Studies and Case –Control studies, to list a few.
- Basic concepts of sampling techniques.
- The basics of evaluation of studies. It provides an introduction to the pitfalls inherent in the interpretation of published result.

Learning Outcomes:

On completion of this subject students will be able to:

SLO 1: Demonstrate a basic understanding of the role of EBM in modern medical research and understand the 'hierarchy of evidence'.
SLO 2: Demonstrate a knowledge of the key terms and concepts involved in EBM
SLO 3: Demonstrate an awareness of the basic statistical tools commonly used in medical research
SLO 4: Apply basic statistical tools appropriately in simple situations
SLO 5: Apply experimental design and sampling techniques to hypothetical situations
SLO 6: Select and apply appropriate designs and sampling techniques
SLO 7: Critically evaluate medical research papers at a basic level

Student Workload:

The following extract for the ACD Academic Awards Framework Policy should be used as a guide to the minimum time a student should spend working on this subject.

"A 3 credit point subject will have a minimum of 36 hours teaching time associated with it"…
per semester.

"1CP will equate to a minimum of 2.5 hours personal study time per week for the student. Over a semester (20 weeks) this equates to 150 hours of personal study time for a 3 CP subject.

Teaching:

- Weekly F2F Lecture/Tutorials
- Weekly virtual classroom session(s) (Webinars) - Includes online discussion contribution
- Student self-paced online study

Assessment:

- Formal MCQs
- Written Assignment(s)
- Virtual classroom contributions

Assessment task	Weight	Subject Learning outcomes assessed	Curriculum Learning Outcomes	Due date
MCQ Exam/Quiz	40%	1 - 7	CLMO 1 - 7	TBA
Assignment 1: Design Exercise	20%	5, 6	CLOM 6	TBA
Assignment 2: Paper Critique	20%	7	CLMO 3 - 5	TBA
Assignment 3: Evaluate experimental designs	15%	4 - 5	CLMO 4, 7	TBA
Discussion/webinar Contribution	5%	All	CLOM 1 - 7	Assessed Weekly

Recommended Additional Resources:

- Research Methods 1 Webinar online
- Greenhalgh T. (2010) How to Read a Paper: The Basics of Evidence-Based Medicine. (4th ed.) West Sussex: Wiley-Blackwell.
- Greenhalgh T (1997) How to Read a Paper. *British Medical Journal*, July p315
- Other published papers referred to in the online supporting module.

Curriculum Mapping:

Subject Learning Outcome	Curriculum Learning Outcome
SLO 1: Demonstrate a basic understanding of the role of EBM in modern medical research and understand the 'hierarchy of evidence'.	CLMO 1,3 – 4, 6 - 7
SLO 2: Demonstrate a knowledge of the key terms and concepts involved in EBM	CLMO 1,3 – 4, 6 - 7
SLO 3: Demonstrate an awareness of the basic statistical tools commonly used in medical research	CLMO 1,3 – 4, 6 - 7
SLO 4: Apply basic statistical tools appropriately in simple situations	CLMO 1,3 – 4, 6 - 7
SLO 5: Apply experimental design and sampling techniques to hypothetical situations	CLMO 1,3 – 4, 6 - 7
SLO 6: Select and apply appropriate designs and sampling techniques	CLMO 1,3 – 4, 6 - 7
SLO 7: Critically evaluate medical research papers at a basic level	CLMO 1,3 – 4, 6 - 7