THE EDUCATION UNIVERSITY OF HONG KONG

Course Outline

Part I

Programme Title	:	Doctor of Education (EdD)
Programme QF Level	:	7
Course Title	:	Advanced Research Methodology for Health
Course Code	:	HCS7002
Department	:	Health and Physical Education
Credit Points	:	3
Contact Hours	:	39 (Directed Study option)
Pre-requisite(s)	:	Nil
Medium of Instruction	:	English
Course Level	:	7

Part II

The University's Graduate Attributes and seven Generic Intended Learning Outcomes (GILOs) represent the attributes of ideal EdUHK graduates and their expected qualities respectively. Learning outcomes work coherently at the University (GILOs), programme (Programme Intended Learning Outcomes) and course (Course Intended Learning Outcomes) levels to achieve the goal of nurturing students with important graduate attributes.

In gist, the Graduate Attributes for Undergraduate, Taught Postgraduate and Research Postgraduate students consist of the following three domains (i.e. in short "PEER & I"):

- **P**rofessional **E**xcellence;
- **E**thical **R**esponsibility; **&**
- **I**nnovation.

The descriptors under these three domains are different for the three groups of students in order to reflect the respective level of Graduate Attributes.

The seven GILOs are:

1. Problem Solving Skills
2. Critical Thinking Skills
3. Creative Thinking Skills
4a. Oral Communication Skills

4b. Written Communication Skills
5. Social Interaction Skills
6. Ethical Decision Making
7. Global Perspectives

1. **Course Synopsis**

   This advanced level course is designed to introduce students to the principles and methodologies commonly used in the area of medical and health research. On completion of the course, students will have a firm understanding of most quantitative and qualitative research methods including their strengths and weaknesses, the appropriate analytical approach for data analysis in accordance with the research design, and the interpretation of results obtained from these research designs. Moreover, students will be introduced to some of the more recent advanced research methods as a way to formulate the design of a study.

2. **Course Intended Learning Outcomes** (CILO$_s$)

   Upon completion of this course, students will be able to:

   CILO$_1$ examine the concept and the principle methodologies commonly used in medical and health research in detail;

   CILO$_2$ critically evaluate the strengths and weaknesses of each type of research methods, both quantitative and qualitative;

   CILO$_3$ examine the appropriate statistical and analytical approaches for data collection using different types of research methodologies, and critically evaluate the proper interpretation of results obtained from the analysis;

   CILO$_4$ critically evaluate some of the advanced methods recently developed for uncommon medical and health research.

3. **Content, CILOs and Teaching & Learning Activities**

Course Content	CILOs	Suggested Teaching & Learning Activities
Principles of research methodologies developed for medical and health studies	*CILO$_1$*	Tutorials, Case study, Discussion with supervisor
In depth analysis of each type of research method for their strengths and weaknesses	*CILO$_2$*	

Advanced and statistical analytical approaches for each type of research design and the interpretation of results obtained from the analysis	CILO$_{1,2,3}$
Examination of recently developed advanced methods for medical and health research	CILO$_{1,2,3,4}$

4. Assessment

Assessment Tasks	Weighting (%)	CILO
(a) Tutorials: Students are required to have tutorials with the supervisor on various topics covering the contents of the course.	10%	CILO$_{1-4}$
(b) Reflections: Students are required to have tutorials with the supervisor on various topics covering the contents of the course. At the end of each, they are required to provide a reflection on the topic based on the readings and discussions.	40%	CILO$_{1-4}$
(c) Essay: Students are required to submit a proposal on the design of a study with full details.	50%	CILO$_{1-4}$

5. Required Text(s)

Webb, P., Bain, C., & Page A. (2017) *Essential epidemiology: An introduction for students and health professionals* (3rd ed.). Cambridge University Press.

6. Recommended Readings

Portney, L.G. (2020*). Foundations of clinical research: Applications to evidence-based practice* (4th ed.). F.A. Davis Company.

Tashakkoriu, A.M, Johnson, R.B., & Teddlie, C.B (Eds). (2020). *Foundations of mixed methods research: Integrating quantitative and qualitative approaches in the social and behavioural sciences (Applied Social Research Methods)* (2nd ed). SAGE Publication.

Westreich, D. (2020) *Epidemiology by Design. A causal approach to the health sciences.* Oxford University Press.

7. Related Web Resources

Department of Epidemiology and Biostatistics, Imperial College London
https://www1.imperial.ac.uk/publichealth/departments/ebs/

Epidemiology and Biostatistics Division, School of Public Health, University of Illinois, Chicago
http://publichealth.uic.edu/departments/epidemiologyandbiostatistics/

The Department of Epidemiology, Biostatistics and Occupational Health, McGill University
https://www.mcgill.ca/epi-biostat-occh/

8. Related Journals

Epidemiology
Annals of Epidemiology
American Journal of Epidemiology
International Journal of Epidemiology
Journal of Epidemiology
Journal of Epidemiology and Community Health
European Journal of Epidemiology
Journal of Epidemiology and Biostatistics
The Canadian Journal of Epidemiology and Biostatistics

9. Academic Honesty

The University adopts a zero tolerance policy to plagiarism. For the University's policy on plagiarism, please refer to the *Policy on Academic Honesty, Responsibility and Integrity with Specific Reference to the Avoidance of Plagiarism by Students* (https://www.eduhk.hk/re/modules/downloads/visit.php?cid=9&lid=89). Students should familiarize themselves with the Policy.

10. Other

Nil

Programme Title	**:**	Doctor of Education
Course Title	**:**	Advanced Research Methodology for Health
Course Code	**:**	HCS7002
Offering Unit	**:**	Department of Health and Physical Education
Credit Points	**:**	3

Delivery mode:

☐ **Online learning as the primary delivery mode**

Range of classroom-based contact hours (0-15)	Range of hours for online learning (24-39)	Total No. of-Contact Hours
		39

☑ **Directed study mode**

Range of classroom-based contact hours (4-15)	Range of guided independent learning hours (24-35)	Total No. of-Contact Hours
12	27	39

Updated as of 8 March 2023