

THE EDUCATION UNIVERSITY OF HONG KONG

Capstone Project I: Research Methods and Proposal

Part I

Programme Title	:	Three-year/ Four-year part-time Bachelor of Education (Honours)
Programme QF Level	:	5
Course Title	:	Capstone Project I: Research Methods and Proposal
Course Code	:	TLS4073/ ECE4255/ EDA4118/ PSY4078/ SED4091
Departments	:	A team of specialists across departments in FEHD
Credit Points	:	3
Contact Hours	:	39 contact hours
Pre-requisite(s)	:	Nil
Medium of Instruction	:	Chinese/ English
Course Level	:	4

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 Sub-degree, Undergraduate, Taught Postgraduate, Professional Doctorate and Research Postgraduate students consist of the following three domains (i.e. in short "PEER & I"):

- Professional Excellence;
- Ethical Responsibility; &
- Innovation.

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 course aims to develop teachers as learners, researchers, inquirers and knowledge creators

in education and their related disciplines; and prepare them for conducting a research-based or an inquiry-based project in Capstone Project II: Project Output. It consists of two parts:

Part A “Generic Research Methods” (1.5 cps) introduces basic research knowledge and principles of research methods for students to use and/or conduct research in education and related disciplines, and ethical issues in the research process. It emphasises students’ roles as users of research as well as researchers themselves and the process of action research and/or action learning. Topics include recognising the value of educational research, understanding the process of research, the search and effective use of literature, identifying research topic and questions, features of research proposal and research report, ethical issues in educational research and reliability and validity of different research methods. Students study short online units and attend face-to-face tutorials in which they are guided to connect and consolidate online learning with in-class learning activities. The assessment tasks include online and in-class exercises on research methods.

Part B “Methods for Specific Area in Preparation of Capstone Project” (1.5 cps) prepares students to develop a proposal for conducting a project-based study in their chosen areas. Topics may include understanding the purposes and methods of sampling, quantitative research methods (e.g., survey research, experimental study, descriptive statistics and correlation, inferential statistics and data analysis with SPSS), qualitative research methods (e.g., interview, observation, documents and artefacts, case study), mixed-methods research, research in comparative education and philosophical methods in educational research. Students will be guided to identify a topic, conduct a literature review, select appropriate methods of data collection and analysis/inquiry, write a proposal, and create a demonstration/ visualization of the project idea.

2. Course Intended Learning Outcomes (CILOs)

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

- CILO1 demonstrate an understanding of the basic principles of research methods in education and related disciplines, both qualitative and quantitative;
- CILO2 show analytical skills in research and the awareness of research ethics;
- CILO3 write a literature review to examine the existing theories and knowledge in relation to the Capstone Project topic;
- CILO4 select appropriate methods for the collection and analysis of data and/or creating a project output;
- CILO5 write a proper and clear proposal and a demonstration/ visualization of the project idea to form the basis of implementation in Capstone Project II: Project Output.

3. Content, CILOs and Teaching & Learning Activities

Course Content	CILOs	Suggested Teaching & Learning Activities
Part A “Generic Research Methods” (1.5 cps)		
Fundamental elements in research • Introduction to research process • Literature search and review • Identifying research topic and question • Teachers as users of research and teachers as researchers	CILO ₁	Online lessons, tutorials, and group discussions
Approaches to research • Introduction to educational research • Fundamentals of research paradigms (e.g., quantitative, qualitative and mixed-methods, action research)	CILO ₁	

Course Content	CILOs	Suggested Teaching & Learning Activities
- Major methodological approaches to educational research - Reliability and validity		
Ethical considerations in the research endeavour Ethics for student research project with a focus on human participants	<i>CILO₂</i>	Lectures and tutorials
Part B “Methods for Specific Area in Preparation of Capstone Project” (1.5 cps)*		
Understanding of research methods - Basic concepts on the procedures, designs and methods, such as sampling methods. - Major research methods, such as quantitative research methods (e.g. survey research, experimental study), qualitative research methods (e.g. interview, observation), and mixed-methods research - Skills for data analysis/ inquiry and demonstration/ visualization	<i>CILO₃₋₅</i>	Lectures, tutorials, literature review, case studies, group discussions, presentations and self-study
Understanding of project proposal writing - Major concerns of proposal writing (content, structure and ethical issues). - Project proposal development: statement of the problem, research design and literature review.	<i>CILO₅</i>	Tutorials, workshops, presentations and consultations

*The topics of research methods are to be selected with reference to the Specific Area of the Capstone Project

4. Assessment

Assessment Tasks	Weighting (%)	CILO
Online exercises and tutorial exercises on “Generic Research Methods”	50%	<i>CILO₁₋₅</i>
A 1,900 to 2400 Chinese characters (CMI)/ 1,200 to 1,500-English word (EMI) project proposal which includes the statement of the project issue/ problem, the justification and expected outcomes of the project (25%); also, a demonstration/ visualization of the project idea (25%)	50%	<i>CILO₁₋₅</i>

Please note: Students are required to obtain a Pass in both Part A and Part B in order to get a Pass in CP I. As CP I is a pre-requisite for CP II, students must obtain a Pass in CP I in a given Specific Area in order to progress to CP II of the same Specific Area. Students who fail either Part A or Part B may be given the opportunity to do the remedial works/assignments. Students in CMI class should complete the assessment tasks in Chinese, and students in EMI class should complete the assessment tasks in English.

5. Use of Generative AI in Course Assessments

☐ **Not Permitted:** In this course, the use of generative AI tools is not allowed for any assessment tasks.

☑ **Permitted:** In this course, generative AI tools may be used in some or all assessment tasks. Instructors will provide specific instructions, including any restrictions or additional requirements (e.g., proper acknowledgment, reflective reports), during the first lesson and in relevant assessment briefs.

6. Required Text(s)

Nil

7. Recommended Readings*

- Babbie, E. R. (2020). *The practice of social research* (15th ed.). Cengage.
- Bell, J., & Waters, S. (2024). *Doing your research project: A guide for first-time researchers* (8th ed.). Open University Press.
- Booth, W. C., Colomb, G. G., Williams, J. M., Bizup, J., & FitzGerald, W. T. (2024). *The craft of research* (5th ed.). The University of Chicago Press.
- Bray, M., Adamson, B., & Mason, M. (Eds.). (2014). *Comparative education research: Approaches and methods* (2nd ed.). Comparative Education Research Centre, The University of Hong Kong, and Springer.
- Cohen, D. H., Stern, V., & Balaban, N. (2024). *Observing and recording the behavior of young children* (7th ed.). Teachers College Press.
- Cohen, L., Manion, L., & Morrison, K. (2018). *Research methods in education* (8th ed.). Routledge.
- Cohenmiller, A. S., & Pate, E. (2019). A model for developing interdisciplinary research theoretical frameworks. *Qualitative Report*, 24(6), 1211-1226.
- Creswell, J. W., & Creswell, J. D. (2023). *Research design: Qualitative, quantitative, and mixed methods approaches* (6th ed.). Sage.
- Creswell, J. W., & Poth, C. N. (2024). *Qualitative inquiry & research design: Choosing among five approaches* (5th ed.). Sage.
- Eacersall, D., et al. (2025). Navigating ethical challenges in generative AI-enhanced research: The ETHICAL framework for responsible generative AI use. *Journal of Applied Learning & Teaching*, 8(2), 102-115.
- Fraenkel, J. R., Wallen, N. E., & Hyun, H. H. (2022). *How to design and evaluate research in education* (11th ed.) McGraw-Hill Education.
- Feldman, A., Altrichter, H., Posch, P., & Somekh, B. (2018). *Teachers investigate their work: An introduction to action research across the professions* (3rd ed.). Routledge.
- Kemmis, S., McTaggart, R., & Nixon, R. (2014). *The action research planner: Doing critical participatory action research*. Springer.
- Leavy, P. (2022). *Research design: Quantitative, qualitative, mixed methods, arts-based, and community-based participatory research approaches* (2nd ed.). Guilford.
- Li, H., & Wu, X. (2025). The use of generative AI tools in academic writing: a systematic review of research trends and thematic insights. *AI and Ethics*, 1-20.
- Looft, F. J., & Rong, Y. K. (2012). The capstone project: An integrated experience. In G. Tryggvason & D. Apelian (Eds.), *Shaping our world: Engineering education for the 21st Century* (pp. 123-149). John Wiley & Sons.

- Miles, M. B., Huberman, A. M., & Saldaña, J. (2018). *Qualitative data analysis: A methods sourcebook* (4th ed.). Sage.
- Repko, A. F., & Szostak, R. (2025). *Interdisciplinary research: Process and theory* (5th ed.). Sage.
- Silverman, D. (2022). *Doing qualitative research* (6th ed.). Sage
- Smith, J. A. (Ed.). (2024). *Qualitative psychology: A practical guide to research methods* (4th ed.). Sage.
- Stratton-Maher, D., & Kelly, J. (2026). Learning with AI, not from AI: Ethical and pedagogical implications of ChatGPT in undergraduate education. *Nurse Education Today*, 158, Article 106961.
- Stringer, E. T., & Ortiz Aragón, A. (2021). *Action research* (5th ed.). Sage.
- Tracy, S. J. (2024). *Qualitative research methods: Collecting evidence, crafting analysis, communicating impacts* (3rd ed.). Wiley-Blackwell.
- Yin, R. K. (2017). *Case study research and applications: Design and methods* (6th ed.). Sage.
- 李政賢 (2024)。《質性研究的五種取徑：敘事研究、現象學、扎根理論、俗民誌、個案研究》(第 2 版)(原作者：J. W. Creswell & C. N. Poth)。台北：五南圖書出版股份有限公司。
- 林慶彰 (2011)。《學術論文寫作指引(文科適用)》(第 2 版)。台北：萬卷樓圖書股份有限公司。
- 周海濤，李永賢，張蘊 (2023)。《個案研究：設計與方法》(第 2 版)(原作者：R. K. Yin)。台北：五南圖書出版股份有限公司。
- 姚潔，黃建瓊，陳章斌主編 (2017)。《文獻檢索實用教程》。北京：清華大學出版社。
- 徐振邦 (2010)。《最新教育研究法》(原作者：L. Cohen, L. Manion & K. Morrison)。台北：韋伯文化國際出版有限公司。
- 張宇樑，吳榕椒 (2011)。《研究設計：質化，量化及混合方法取向》(原作者：J. W. Creswell & J. D. Creswell)。台北：學富文化事業有限公司。
- 陳鑫譯 (2017)。《人文學科學術寫作指南》(原作者：Eric Hayot)。北京：新華出版社。
- 彭明輝 (2023)。《論文寫作完全求生手冊：「精準表達，以理服人」的技藝》。台北：聯經出版公司。
- 楊孟麗，謝水南 (2021)。《教育研究法：研究設計實務》(第 3 版)(原作者：J. R. Fraenkel, N. E. Wallen & H. H. Hyun)。台北：心理出版社股份有限公司。
- 葉重新 (2017)。《教育研究法》(第 3 版)。台北：心理出版社股份有限公司。

*Detailed reading list will be provided by individual discipline areas.

8. Related Web Resources

Ethical Use Cases of AI in Academic Writing: A 2025 Guide for Students and Researchers

<https://www.thesify.ai/blog/ethical-use-cases-of-ai-in-academic-writing-a-2025-guide-for->

9. Related Journals

Ethnography and Education

Field Methods

International Journal of Research and Method in Education

Narrative Inquiry

Qualitative Research

Qualitative Research Journal

10. Academic Honesty

The University upholds the principles of honesty in all areas of academic work. We expect our students to carry out all academic activities honestly and in good faith. Please refer to the *Policy on Academic Honesty, Responsibility and Integrity* (<https://www.eduhk.hk/re/uploads/docs/000000000016336798924548BbN5>). Students should familiarize themselves with the Policy.

11. Others

Nil