

The Hong Kong Polytechnic University

Subject Description Form

Please read the notes at the end of the table carefully before completing the form.

Subject Code	ABCT5T01
Subject Title	Academic Integrity and Ethics in Science
Credit Value	1
Level	5
Pre-requisite/ Co-requisite/ Exclusion	None
Objectives	<ol style="list-style-type: none"> 1. Raise students' awareness of the importance of adhering high standards of academic integrity. 2. Enhance students' ability to critically analyse ethical issues and make appropriate ethical decisions. 3. Equip students with a deep understanding and respect of academic integrity and ethics that they can apply in their scientific research and use of generative artificial intelligence (AI) at PolyU as well as in their future professional endeavours.
Intended Learning Outcomes <i>(Note 1)</i>	<p>Upon completion of the subject, students will be able to:</p> <ol style="list-style-type: none"> a. Demonstrate knowledge and understanding of the concepts and principles of academic integrity and ethics. b. Demonstrate awareness and ability to analyse academic integrity and ethical issues, such as copyright and plagiarism, and act properly to avoid academic and ethical misbehaviours. c. Recognise important ethical issues and practices in a university context. d. Understand the implications and concerns on academic integrity raised by the latest technology, such as ChatGPT and other Generative Artificial Intelligence (GenAI) tools. e. Identify and deal with complex ethical and professional issues in discipline-specific settings, and be able to communicate effectively the issues to the stakeholders and the public. f. Develop a consciousness of prevailing ethical issues and dilemmas in relation to their specific scientific research area and generative AI.

	Total	100 %	
	<p>Explanation of the appropriateness of the assessment methods in assessing the intended learning outcomes:</p> <p>Each student will be required to make a presentation, e.g., individual video presentation, to present their understanding of key issues in academic integrity and ethics as well as discipline-related scenario/case analysis, which will assess the student's understanding on the topic and ability to identify and analyze ethical issues in related fields and figure out how these could be avoided or resolved.</p> <p>The subject will be assessed on a Pass/Fail grading mechanism.</p>		
Student Study Effort Expected	Class contact:		
	▪ Lecture/presentation		13 Hrs.
	Other student study effort:		
	▪ Self study		20 Hrs.
	▪ Presentation preparation		6 Hrs.
	Total student study effort		39 Hrs.
Reading List and References	<ul style="list-style-type: none"> • Saxena, A., (2019). <i>Ethics in Science: Pedagogic Issues and Concerns</i>. Springer. • Rollin, B. E., (2006). <i>Science and ethics</i>. Cambridge University Press. • Bretag, T. (2016). <i>Handbook of academic integrity</i>. Springer Singapore. • Rettinger, D. A., & Gallant, T. B. (2022). <i>Cheating Academic Integrity: Lessons from 30 Years of Research</i>. Wiley. • Holbrook, J. B., & Mitcham, C., (2015). <i>Ethics, science, technology, and engineering: a global resource (2nd edition)</i>. Gale, Cengage Learning. • Comstock, G., (2010). <i>Life science ethics (2nd edition)</i>. Springer. • von Braun, J., S. Archer, M., Reichberg, G. M. & Sánchez Sorondo, M., (2021). <i>Robotics, AI, and Humanity: Science, Ethics, and Policy</i>. Springer Nature. 		

	<ul style="list-style-type: none"> • Loukides, M., Mason, H. & Patil, D. J., (2018). <i>Ethics and Data Science</i>. O'Reilly Media, Inc. • Cotton, D. R., Cotton, P. A., & Shipway, J. R. (2023). Chatting and cheating: Ensuring academic integrity in the era of ChatGPT. <i>Innovations in Education and Teaching International</i>, 1-12. https://doi.org/10.1080/14703297.2023.2190148
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Note 1: Intended Learning Outcomes

Intended learning outcomes should state what students should be able to do or attain upon subject completion. Subject outcomes are expected to contribute to the attainment of the overall programme outcomes.

Note 2: Subject Synopsis/Indicative Syllabus

The syllabus should adequately address the intended learning outcomes. At the same time, overcrowding of the syllabus should be avoided.

Note 3: Teaching/Learning Methodology

This section should include a brief description of the teaching and learning methods to be employed to facilitate learning, and a justification of how the methods are aligned with the intended learning outcomes of the subject.

Note 4: Assessment Method

This section should include the assessment method(s) to be used and its relative weighting, and indicate which of the subject intended learning outcomes that each method is intended to assess. It should also provide a brief explanation of the appropriateness of the assessment methods in assessing the intended learning outcomes.

(Form AR 140) 8.2020