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					
	A so domio Integrity and Ethics in Spience					
Subject Title	Academic Integrity and Ethics in Science					
Credit Value	1					
Level	5					
Pre-requisite/ Co-requisite/ Exclusion	None					
Objectives	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	Upon completion of the subject, students will be able to:					
Outcomes (Note 1)	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.					

	g.	Critically a ethical mis discipline a	sconduct w	ithi	in t			-			
	h.	Discuss th principles t context of s	o profession	nal ar	nd pe	rsona	al coo	des of	f con	duct	
Subject Synopsis/ Indicative Syllabus (Note 2)	•	The Neces behaviour i studies and	n scientific	resea	rch a	nd ge	enera				
	•	Philosophy ethical guid		s Coo	des:	Origi	ins a	nd ap	oplic	ations	s of
	•	The Interse the connect				-					-
	•	Research methodolog approval.	Project gies, and		Ethica sidera						lures, thical
	•	Discipline- principles, including research, g security iss	and disc use of animisene editing	ipline mals	e-spe and	cific hun	sce nan	nario being	s ir s in	n sci scie	ence, ntific
	•	Ethics and societal res generative	sponsibilitie					-			
	•	Ethical In plagiarism, and scientif	and approp	priate	e cita	tion,	parti	icular	ly fo	or res	earch
Teaching/Learning Methodology (<i>Note 3</i>)	 Lectures: Related knowledge and background will be introduced. Case studies will be employed to illustrate the relevant issues. Guest speakers will be invited to deliver guest lectures on selected topics if deemed necessary. Interactive discussions will be fostered to stimulate critical thinking and propose ethical solutions and decision-making strategies. Presentations: Students will deliver presentations on their understanding of key issues in academic integrity and ethics as well as on discipline-related scenario/case analysis. This will deepen their understanding on academic integrity and ethnics, and promote 										
		ir understand application	-			grity	and o	ethnio	es, ar	nd pro	omote
Assessment Methods in Alignment with Intended Learning	as	pecific	% weighting			•		•		omes ropria	
in Alignment with	as					•		•			

	Total	100 %				
	Explanation of the appropriateness of the assessment methods in assessing the intended learning outcomes:					
	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.					
	The subject will be assessed on a Pass/Fail grading mechanism.					
Student Study Effort Expected	Class contact:					
Expected	Lecture/presentation 13 Hrs.					
	Other student study effort:					
	 Self study 			20 Hrs.		
	Presentation preparation		6 Hrs.			
	Total student study effort39 Hrs					
Reading List and References	• Saxena, A., (2019). Ethics in Science: Pedagogic Issues and Concerns. 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, Springer.	G., (2010). Life science ethics	(2nd edition).		
	Sorondo, N	М., (2021).	her, M., Reichberg, G. <i>Robotics, AI, and Hum</i> ringer Nature.			

•	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</i> <i>International</i> , 1-12.
	https://doi.org/10.1080/14703297.2023.2190148

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.

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