THE UNIVERSITY OF HONG KONG

Template for Mapping of Programme Learning Outcomes to University Educational Aims – Taught Postgraduate Programmes

Faculty of __Engineering, Department of Industrial and Manufacturing Systems Engineering

Programme title: Master of Science in Engineering in Robotics and Intelligent Systems

Applicable student cohort(s): __2025-2026 and thereafter

The purpose of mapping is to illustrate the coherence of the programme in achieving the University Educational Aims (UEAs). The mapping should be an evaluative and reflective process, and the Faculty must ensure that the programme as a whole offers students sufficient opportunities to develop the attributes articulated in each of the UEAs and the corresponding Institutional Learning Outcomes. *Please put a tick (√) in the boxes under the UEA columns below to indicate the alignment, as applicable.*

Programme Learning Outcomes (PLOs)	**Alignment with University Educational Aims (UEAs)*** Benchmarked against the highest international standards, the taught postgraduate programmes at HKU are designed to enable students to develop capabilities in:					
	UEA1 Critical intellectual enquiry and acquiring up-to-date knowledge and research skills in a discipline/ profession	**UEA2** Application of knowledge and research skills to practice or theoretical exploration, demonstrating originality and creativity	**UEA3** Tackling novel situations and ill-defined problems	**UEA4** Collaboration and communication of disciplinary knowledge to specialists and the general public	**UEA5** Awareness of and adherence to personal and professional ethics	**UEA6** Enhancement of leadership and advocacy skills in a profession *(for professional programmes only)*
PLO1: The ability to develop, monitor and update a robot or intelligent system, to reflect a changing operating environment	√	√	√			
PLO2: The ability to monitor and adjust a personal programme of work on an on-going basis, and to learn independently			√	√		

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PLO3: The ability to exercise initiative and personal responsibility and professional ethics, which may be as a team member or leader				√	√	√
PLO4: The ability to learn new theories, concepts, methods related to robotics and intelligent systems and apply these in unfamiliar situations	√	√	√			
PLO5: A comprehensive understanding of the relevant scientific principles of the robotics and intelligent systems	√		√			
PLO6: A critical awareness of current problems and/or new insights much of which is at, or informed by, the forefront of the robotics and intelligent systems	√		√	√		
PLO7: An understanding of concepts relevant to the robotics and intelligent systems , some from outside engineering, and the ability to critically evaluate and apply them effectively	√					

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PLO8: The ability to use fundamental knowledge to investigate new and emerging system models and technologies	√	√	√			
PLO9: The ability to apply appropriate models for solving problems in robotics and intelligent systems, and the ability to assess the limitations of particular cases	√	√	√			
PLO10: The ability to collect and analyse research data and use appropriate engineering tools to tackle unfamiliar problems, such as those with uncertain or incomplete data or specifications, by the appropriate innovation, use or adaptation of engineering analytical methods	√	√	√			
PLO11: The ability to apply original thought to the development of practical solutions for robotics and intelligent systems		√	√			
PLO12: Knowledge and understanding of management and business practices, and		√		√	√	√

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their limitations, and how these may be applied appropriately, in the context of the robotics and intelligent systems						
PLO13: The ability to make general evaluations of risks through some understanding of the basis of such risks				√	√	√
PLO14: A thorough understanding of current practices and its limitations, and some appreciation of likely new developments in robotics and intelligent systems		√		√		√
PLO15: Advanced level knowledge and understanding of a wide range of robotics and intelligent systems		√				√
PLO16: The ability to apply engineering techniques taking account of a range of robotics and intelligent systems				√	√	

*The Institutional Learning Outcomes for each UEA can be found at tl.hku.hk/tl/.

March 2022