

THE UNIVERSITY OF HONG KONG

**Template for Mapping of Programme Learning Outcomes to University Educational Aims – Undergraduate Programmes**

Faculty of Engineering, Department of Data and Systems Engineering

Programme title: Bachelor of Engineering in Data and Systems Engineering  
(Re-titled from Bachelor of Engineering in Industrial Engineering and Logistics Management)

Applicable student cohort(s): 2025-26 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 undergraduate programmes at HKU are designed to enable students to develop capabilities in:					
	UEA1 Pursuit of academic/professional excellence, critical intellectual inquiry and life-long learning	UEA2 Tackling novel situations and ill-defined problems	UEA3 Critical self-reflection, greater understanding of others, and upholding personal and professional ethics	UEA4 Intercultural communication, and global citizenship	UEA5 Communication and collaboration	UEA6 Leadership and advocacy for the improvement of the human condition
PLO1: An ability to apply: mathematical knowledge, scientific principles, information and communications technology, and the concepts of engineering appropriate to the degree discipline.	✓	✓				

PLO2: An in-depth understanding of and an ability to apply core knowledge in data and systems engineering, with application domains such as industrial engineering, logistics, and services engineering.	✓	✓				
PLO3: An ability to identify, analyse, and propose solutions to related operational problems.	✓	✓				
PLO4: An ability to plan, design, and manage logistics, manufacturing and service systems.	✓	✓				
PLO5: An ability to contribute to resources management and systems integration and optimisation.	✓	✓				
PLO6: An ability to recognise and explore entrepreneurial opportunities in an ever-changing business environment, and to take on professional leadership and responsibilities.	✓	✓				
PLO7: An ability to apply innovative technologies in products and processes design/improvement.	✓	✓				

PLO8: An ability to appreciate the need and recognise the importance of professional and ethical responsibility and behaviour.	✓	✓	✓	✓	✓	✓
PLO9: An ability to understand the impact of engineering solutions in a global and societal context, especially the importance of health, safety, and other factors that can impact the internal and external environment.	✓	✓	✓	✓	✓	✓
PLO10: An ability to apply the techniques and skills of modern engineering to a broad range of engineering problems, as expected of an engineering graduate.	✓	✓	✓	✓	✓	✓
PLO11: An ability to communicate effectively in teamwork, in multi-disciplinary collaboration, and in leadership and company representative roles.	✓		✓	✓	✓	✓
PLO12: An appreciation of the need for and the ability to engage in the life-long learning process required for professional development and for maintaining competency.	✓		✓	✓	✓	✓

\*The Institutional Learning Outcomes for each UEA can be found at [tl.hku.hk/tl/](http://tl.hku.hk/tl/).