**THE UNIVERSITY OF HONG KONG**

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

Faculty of Engineering

Programme title: Master of Science in Engineering in Integrated Circuits and Electronic Systems

Applicable student cohort(s): Students admitted in the 2026/27 academic year 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: Upon successful completion of the curriculum, students will have a solid understanding of the fundamental concepts and theories of integrated circuit design, embedded systems and power electronics, along with the relevant technologies. They will also acquire specialized knowledge that enables them to address key challenges crucial | √ | √ | | | | |

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| for the future growth of industry and business. | | | | | | |
| PLO2: Upon successful completion of the curriculum, students will be equipped to apply advanced expertise, analytical abilities, and sound reasoning across interdisciplinary areas, including materials, devices, integrated circuit, embedded systems, and other pertinent fields. | | √ | √ | | | |
| PLO3: Upon successful completion of the ICES program curriculum, students will be able to apply and integrate interdisciplinary knowledge and skills to identify and solve practical challenges, while developing devices using the appropriate tools and methodologies. | √ | | | √ | | √ |
| PLO4: Upon successful completion of the program curriculum, students will be able to communicate effectively, collaborate with specialists to generate and refine ideas, and accurately employ industry-specific technical terminology. | | | √ | √ | √ | |
| PLO5: Upon successful completion of this program curriculum, students will be able to demonstrate independent and critical thinking skills, while recognizing and addressing the ethical challenges and considerations relevant to the field. | | | √ | √ | √ | |

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| PLO6: Upon successful completion of the program curriculum, students will be able to develop a critical understanding of current global market issues, while fostering leadership, professional ethics, and entrepreneurial competence across relevant interdisciplinary fields. | √ | √ | | | | √ |

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

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