THE UNIVERSITY OF HONG KONG
FACULTY OF ENGINEERING

BEng in Engineering Science Degree: Curriculum Level Learning Outcomes

Curriculum Level Outcomes	University Educational Aims
Curriculum -level Intended Learning Outcome 1. **Upon successful completion of the curriculum, students should be able to:** • use the techniques, skills, modern engineering tools as well as inter-disciplinary knowledge and skills necessary for engineering practice • recognize the need for, and to engage in life-long learning • critically analyze major changes in technology and their application to engineering issues • exercise critical decision making in defining solutions, and an understanding of the design process within engineering • design and conduct engineering experiments and to critically analyze and interpret data from those experiments	**University Educational Aim 1.** • Benchmarked against the highest international standards, the 4-year undergraduate curriculum at HKU is designed to enable our students to develop their capabilities in pursuit of academic/ professional excellence, critical intellectual enquiry, and life-long learning
Curriculum -level Intended Learning Outcome 2. **Upon successful completion of the curriculum, students should be able to:** • work on unfamiliar problems and to deal with unfamiliar situations by applying engineering and inter-disciplinary knowledge • identify, formulate and solve engineering problems	**University Educational Aim 2.** • Benchmarked against the highest international standards, the 4-year undergraduate curriculum at HKU is designed to enable our students to develop their capabilities in tackling novel situations and ill-defined problems
Curriculum -level Intended Learning Outcome 3. **Upon successful completion of the curriculum, students should be able to:** • understand personal strengths and weaknesses • respond sensitively to the needs and preferences of others • engage in self-reflection on their own professional practice as engineers	**University Educational Aim 3.** • Benchmarked against the highest international standards, the 4-year undergraduate curriculum at HKU is designed to enable our students to develop their capabilities in critical self-reflection, greater understanding of others, and upholding personal and professional ethics

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Curriculum -level Intended Learning Outcome 4. **Upon successful completion of the curriculum, students should be able to:** • communicate with people with diverse cultural backgrounds • appreciate and respect cultural diversity in professional practice • demonstrate an awareness of professional and personal responsibility in relation to local and global concern**s**	**University Educational Aim 4.** • Benchmarked against the highest international standards, the 4-year undergraduate curriculum at HKU is designed to enable our students to develop their capabilities in intercultural communication and global citizenship
Curriculum -level Intended Learning Outcome 5. **Upon successful completion of the curriculum, students should be able to:** • function effectively in teams as well as independently • build positive working relationships with members from multidisciplinary teams • communicate effectively, interact and negotiate with people confidently and appropriately in all communicative settings • present and interpret data and other scientific information using graphs, tables, figures and symbols to scientific and non-scientific audiences	**University Educational Aim 5.** • Benchmarked against the highest international standards, the 4-year undergraduate curriculum at HKU is designed to enable our students to develop their capabilities in communication and collaboration
Curriculum -level Intended Learning Outcome 6. **Upon successful completion of the curriculum, students should be able to:** • take into account the social impact of technology when designing a system, component, or process • understand the impact of engineering solutions in a global and societal context, especially the importance of health, safety and environmental considerations to both workers and the general public • demonstrate a commitment to enacting high ethical standards within engineering practice • show an awareness of engineering sustainability and the impact of engineering decisions within the broader economic, environmental and socio-cultural context	**University Educational Aim 6.** • Benchmarked against the highest international standards, the 4-year undergraduate curriculum at HKU is designed to enable our students to develop their capabilities in leadership and advocacy for the improvement of the human condition