(For students admitted in 2026-27 under the 4-year degree)

BSc in Innovation, Design and Technology

In addition to the requirements of their major programs, students are required to complete the University requirements for graduation. For details please refer to the respective section on this website.

Students may use no more than 9 credits earned from courses delivered in online mode, including HKUST self-paced online [SPO] courses and other online credits approved through the University's credit transfer procedures, to satisfy the graduation requirements of a degree program.

For students graduating with an additional major, they must take all the requirements specified for that major, within which they must complete at least 20 single-counted credits. These 20 credits cannot be used to fulfill any other requirements for graduation except for the 120-credit degree requirement.

Under the new 30-credit Common Core Program which is applicable to students admitted to the University in 2022-23 and thereafter, courses that have been counted towards Major Requirements are not allowed to be reused for fulfilment of the University Common Core Requirements. Students should look up the details of the Common Core Program including the general and School-/program-specific distributional requirements posted on the Common Core website where the link to it is available on this website.

Major Requirements

Required Course(s)

			Credit(s) attained
ISDN	1001	Introduction to Integrative Systems and Design	3
ISDN	1004	Sketching	1
ISDN	1007	From Design Thinking to Design Action: Defining Problems for Better Solutions	3
ISDN	1010	Academic and Professional Development I	0
ISDN	1011	Industrial Training	0
ISDN	2001	Second Year Design Project I	1
ISDN	2002	Second Year Design Project II	3
ISDN	2010	Academic and Professional Development II	0
ISDN	2200	Systems Thinking and Design	3
ISDN	2300	Introduction to 3D Design	3
ISDN	2400	Physical Prototyping	3
ISDN	2601	Exploring the World through Smart Mechatronics	3
ISDN	2602	Internet of Things: Integrative System Design	3
ISDN	2603	Materials, Shape and Design	3
ISDN	3001	Third Year Design Project I	3
ISDN	3002	Third Year Design Project II	3
ISDN	3010	Academic and Professional Development III	0
ISDN	3200	Graphic Communication	2
ISDN	4001	Final Year Design Project I	4
ISDN	4002	Final Year Design Project II	4
ISDN	4010	Academic and Professional Development IV	0

COMP		Note: COMP 1023 OR COMP 2011 OR COMP 2012H	3-5
COMP	1023	Introduction to Python Programming	3
COMP	2011	Programming with C++	4
COMP	2012H	Honors Object-Oriented Programming and Data Structures	5
LANG	4036	Technical Communication for Technology Projects	3
MATH		Note: [MATH 1006 OR MATH 1013 OR MATH 1023 AND (MATH 1014 OR MATH 1024)] OR [MATH 1020] (Subject to approval of the program office, MATH 1014/1024 may be replaced by a COMP course)	4-7
MATH	1006	Calculus, Vectors, and Matrices	4
MATH	1013	Calculus I	3
MATH	1014	Calculus II	3
MATH	1020	Accelerated Calculus	4
MATH	1023	Honors Calculus I	3
MATH	1024	Honors Calculus II	3
PHYS		Note: PHYS 1101 OR PHYS 1111 OR PHYS 1112 OR PHYS 1312	3-4
PHYS	1101	Introductory Physics	4
PHYS	1111	General Physics I	3
PHYS	1112	General Physics I with Calculus	3
PHYS	1312	Honors General Physics I	3

Elective(s)

			Minimum credit(s) required
ISDN/ENTR/ SBM/TEMG		Product Management and Entrepreneurship Electives (Courses from the specified elective list, of which at least 1 course must be at 3000-level or above.)	6
ISDN	3350	Global Product Development	3
ISDN	3360	From Product Innovations to Successful Technology Startups	3
ISDN	4200	Product Management	3
ENTR	3100	Industrial Landscape: Understanding the Elements to Start a Business	3
FINA	2203	Fundamentals of Business Finance	3
ISOM	2030	Business Protections for Innovations	3
ISOM	2700	Operations Management	3
ISOM	4020	Innovation Management and Technology Entrepreneurship	3
MARK	2120	Marketing Management	3
TEMG	3950	T&M Case Analysis and Product Innovation	3
TEMG	4940	T&M Prototyping and Research Project	3-5
TEMG	4950	T&M Corporate Consulting Project	3-5
TEMG	4970	T&M IBPC Startup Project	1-5

ISDN/SENG/ MATH		Project-related Electives (Courses from the specified elective list, of which at least 12 credits should be at 3000-level or above and no more than 3 credits at 1000-level. Students should seek approval of their advisor for the choices of courses.)	21
ISDN	2210	Introduction to Brand Design	3
ISDN	3004	Advanced Sketching	2
ISDN	3150	AI for Design	3
ISDN	3300	Interaction Design	3
BIEN	3320	Data Science for Biology and Medicine	3
COMP	2011	Programming with C++	4
COMP	2012	Object-Oriented Programming and Data Structures	4
COMP	2211	Introduction to Artificial Intelligence	3
COMP	2611	Computer Organization	4
COMP	3111	Software Engineering	4
COMP	3211	Learning, Reasoning, and Decision Making in AI	3
COMP	3311	Database Management Systems	3
COMP	3711	Design and Analysis of Algorithms	3
COMP	4021	Internet Computing	3
COMP	4221	Introduction to Natural Language Processing	3
COMP	4331	Data Mining	3
COMP	4411	Computer Graphics	3
COMP	4421	Image Processing	3
COMP	4461	Human-Computer Interaction	3
COMP	4462	Data Visualization	3
COMP	4521	Mobile Application Development	3
COMP	4632	Practicing Cybersecurity: Attacks and Counter-measures	3
COMP	4641	Social Information Network Analysis and Engineering	3
COMP	4651	Cloud Computing and Big Data Systems	3
COMP	4901	Special Topics in Computer Science	0-4
ELEC		Any ELEC courses at 3000-level	0-4
ELEC		Any ELEC courses at 4000-level	0-4
ELEC	2100	Signals and Systems	4
ELEC	2350	Introduction to Computer Organization and Design	4
ELEC	2400	Electronic Circuits	4
ELEC	2600	Probability and Random Processes in Engineering	4
IEDA	2520	Probability for Engineers	3
MATH	2011	Introduction to Multivariable Calculus	3
MATH	2111	Matrix Algebra and Applications	3
MATH	2343	Discrete Structures	4
MATH	2350	Applied Linear Algebra and Differential Equations	3
MATH	2411	Applied Statistics	4
MECH	2020	Statics and Dynamics	3
MECH	2040	Solid Mechanics I	3
MECH	2210	Fluid Mechanics	3
MECH	2310	Thermodynamics	3

MECH	2410	Engineering Materials I	3
MECH	2520	Design and Manufacturing I	3
MECH	3030	Mechanisms of Machinery	3
MECH	3300	Energy Conversion	3
MECH	3310	Heat Transfer	3
MECH	3420	Engineering Materials II	3
MECH	3510	Computer-Aided Design and Manufacturing	3
MECH	3610	Control Principles	3
MECH	3907	Mechatronic Design and Prototyping	3
MECH	4450	Introduction to Finite Element Analysis	3
MECH	4710	Introduction to Robotics	3
MECH	4740	Numerical Methods in Engineering	3