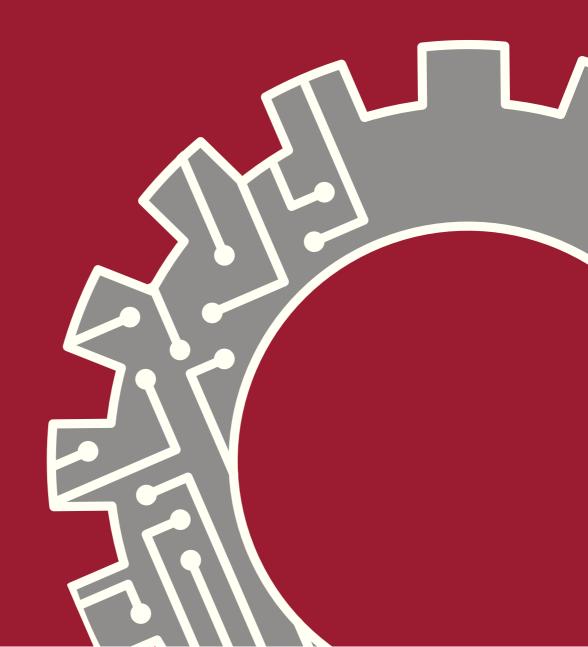
## 2023-24

# GUIDEBOOK FOR FIRST YEAR ENGINEERS



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## Professor Ben Chan

Director, Center for Engineering Education Innovation (E<sup>2</sup>I) The Hong Kong University of Science and Technology

## **WELCOME MESSAGE**

Welcome School of Engineering Students!

You are joining the Engineering family at the most exciting time – both at the university and in the industry. The complex challenges of the fast-moving digital world has led to a large development in the field of engineering and a need to cultivate new ways of thinking and developing ideas. Al, digital media, metaverse, NFT, sustainable city ... there are lots of exciting elements in the school for you to learn and explore.

The School of Engineering combines excellence in teaching theoretical principles and engineering design concepts with practical hands-on experience within a curriculum designed to foster both technical proficiency and communications skills. The first year is an imperative time for all of you. It signifies a unique phase in your learning, where you have been given control of the choice of what and how to study. We feel proud to provide quality education to learners through well-qualified faculty and staff, excellent infrastructural facilities, a digital library, and well-equipped laboratories.

Once again, welcome to our campus and I look forward to seeing you this Fall either in my classroom or somewhere on campus. I invite you to explore the University beyond the classroom to interact with our peer mentors, staff, and professors and participate in a lot of house-based activities throughout the first year.

You may wish to obtain more information about what to do before the semester starts. Please visit our website (<a href="http://sengreg.hkust.edu.hk/">http://sengreg.hkust.edu.hk/</a>) for more details. Should you have any queries regarding academic issues, please do not hesitate to ask our peer mentors and colleagues in the Center for Engineering Education Innovation (E<sup>2</sup>I). You may talk to them directly in the advising office located in-side the 2/F Engineering Commons (Rm2579-2581, lift 27-28).

Have a fruitful university life at HKUST!

Best wishes,

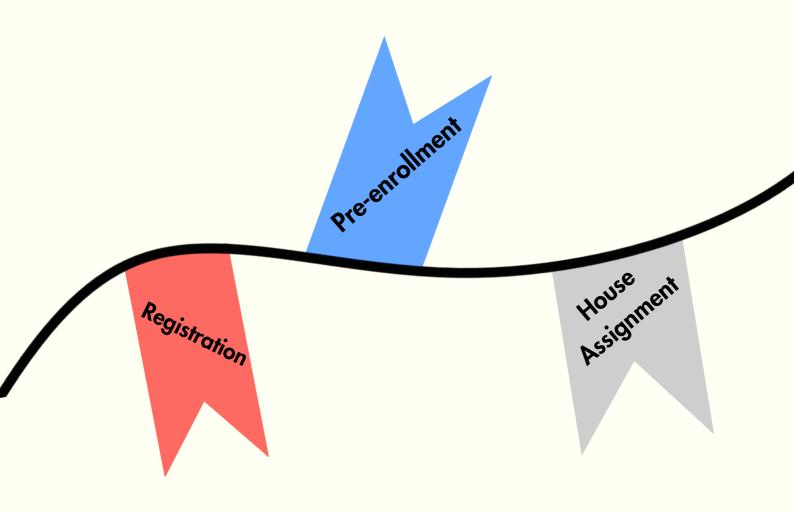
Professor Ben CHAN

Director

Center for Engineering Education Innovation (E<sup>2</sup>I)
The Hong Kong University of Science and Technology



## YOUR JOURNEY THIS YEAR

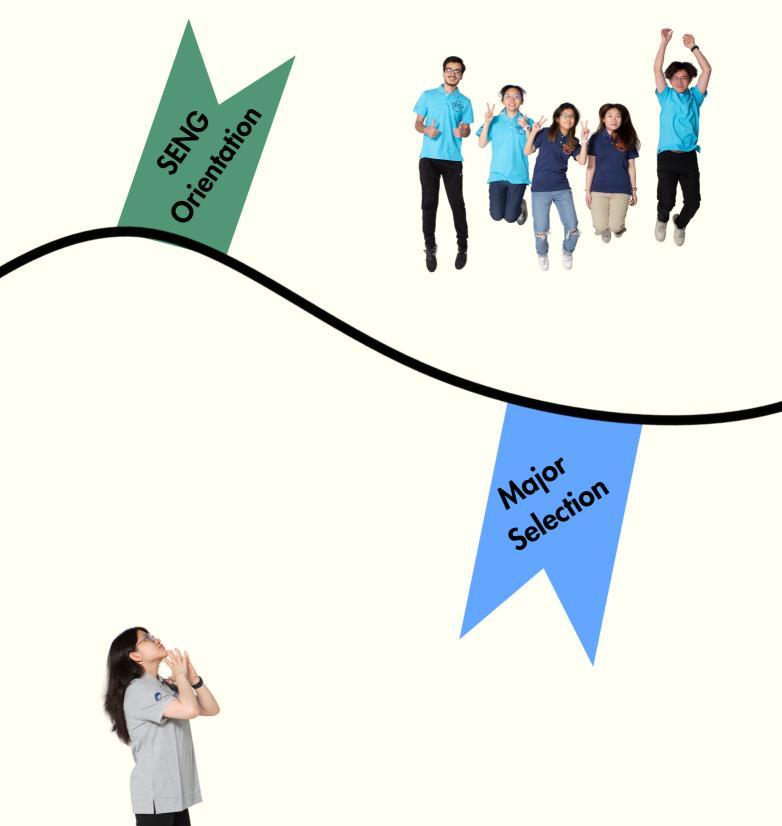


Congratulations on your acceptance into the School of Engineering (SENG) at The Hong Kong University of Science and Technology (HKUST)!

This guide is meant to help launch your undergraduate journey and create your own path to academic success. It contains important information and dates that you will need to begin your transition into the School. This is an interactive guide, just scan or click the QR codes to get additional information.







The path on these two pages outlines the exciting major activities you will be part of in the coming year!



## REGISTRATION & INDUCTION

Completing online registration is the first step in joining the SENG community. With the student ID number, you can follow the online registration guide to activate your ITSC network account and pre-enroll in courses. You will also join a house to get academic advice from faculty advisor and senior year mentors. To activate your ITSC network account, please scan the QR code on the right:



#### **ITSC Account**

The University provides each student an ITSC network account, which allows you to access various campus services and computers within the campus. Please remember your ITSC login and password as you will need to use it frequently.

#### **SENG's Houses**

All Engineering undergraduates are required to join a house as part of the first-year SENG academic advising program. Each house is supported by SENG faculty, academic advisors, and senior year student mentors to help you have a successful transition from high school to university.



#### **Student ID Card**

Your HKUST Card will be issued after you completed the online registration process. This card serves as your library card, access card and electronic payment system for university services like printing from the computer barns. You can download the "HKUST STUDENT" app and use the e-identity card.









To become a registered student you will need to complete both program registration and class enrollment procedures before the deadlines. Your tuition and other fees need to be paid before the registration process is considered completed.

#### **Important Dates:**

Deadline for Pre-enrollment Class Enrollment (1st year students) SENG Welcome & Orientation Commencement of Fall semester Add/Drop Period

12 Aug 2023 at 17:30 25 Aug 2023 28 Aug 2023 1 Sep 2023 1-14 Sep 2023

#### Class Enrollment

You may begin the enrolment process after your ITSC network account has been activated.

Step 1: Pre-enrollment

The following required courses have already been pre-enrolled for you (Credit transfers may be applicable):

Course Code	Course Name	Credit Bearing
MATH 1012/ MATH 1013	Calculus IA/Calculus IB	4/3 Credits
LANG 1401/ LANG 1402	Intensive English for University Studies/English for University Studies	3 Credits
HMAW 1905	Behavioral Foundations of University Education: Habits, Mindsets, and Wellness	3 Credits

You may also pre-register for other Engineering Fundamental Courses during this process. Refer to <u>HKUST's Program Catalog</u> for more information about courses. The deadline of pre-enrollment for Fall is on 12 Aug 2023,17:30 (HKT).

#### Step 2: Class enrollment

Aside from the pre-enrolled courses, you can add all other courses during this period. It's recommended that you take 15 to 18 credits per semester. See the FAQ for further course enrollment details.

## **SENG SCHOOL WELCOME AND ORIENTATION**

This is SENG's official undergraduate orientation day camp. This event is designed to help participants mingle with each other while having fun tackling team challenges. You will participate in activities that elevate your problem solving, teamwork and communication skills. The camp will provide you a memorable experience with your new friends in assigned house.

\*This year, it will be held on **28 August 2023** at the S.H. Ho Sport Hall.



Just have fun and interact with your U-mate!

#### Is there a fee?

SENG Welcome & Orientation is offered at no cost to students. You are required to inform E<sup>2</sup>I in advance if you are unable to attend.

#### How do I sign up?

You will be automatically registered for the SENG Welcome & Orientation. The orientation is an essential part of the first-year experience events and programs.



@hkust.e2i

Follow us on Instagram and keep posted on our upcoming events!





## INFO PAGE FOR FIRST-YEAR ENGINEERS

Info Page is your one-step location on CANVAS which will provide you with up-to-date information regarding major selection exercises, engineering seminars, other workshops, and house activities. All the queries regarding the aforementioned will also be answered.





CANVAS is a learning management system available for many courses. You can download course materials and read the course announcements in CANVAS. You may also be required to submit assignments for some courses via CANVAS.

Canvas's QR Code



# Outlook

Check your HKUST email daily! Official announcements and important messages will be sent to you through email.

If you have any questions regarding your engineering studies, you can also contact our academic advisors through this email address: <a href="mailto:sengadvisor@ust.hk">sengadvisor@ust.hk</a>.





## **ACADEMIC ADVISING**

The Center for Engineering Education Innovation (E<sup>2</sup>I) facilitates SENG's advising program for first-year students. We are here to support you in your academic pursuits and to instill a sense of belonging to the SENG community at HKUST. Our dedicated team of Faculty Advisors and Academic Advisors are here to help you navigate through your undergraduate journey.

#### **Faculty Advisors**

Faculty Advisors from different Engineering majors serve as professional mentors who are here to share their experience and support your academic pursuits. Meeting with them is an excellent opportunity to learn more about major programs, research and career opportunities for graduate study. Details of the sharing/meeting will be announced on Canvas.



#### **Academic Advisors**

Academic Advisors at E<sup>2</sup>I serve as your main resources for academic advising and personal counselling. They are here to help you develop your educational plans and can guide you on a range of academic issues from course enrollment to major selection. You can find them in the Advising Office, at the Engineering Commons.

You can also contact them at (852) 2358-5934/ 2358-8224 or sengadvisor@ust.hk.

## PEER MENTORING PROGRAM

First-year engineering advising through the Peer Mentoring Program (PMP) is based on a house system. The members of each house consist of a mix of local, mainland and international first-year engineering undergraduates. Every house is supported by SENG faculty, academic advisors and senior year peer mentors. In addition, to provide support and advice through peer mentoring sessions, the PMP offers holistic student development workshops to enhance the student learning experience and development.

#### SENG's Houses

The Peer Mentors in each house are friendly individuals who are passionate about helping incoming engineering undergraduates adapt to the SENG community. Each house will plan its own activities and gatherings, so select a house based on your interests! Watch out for opportunities to participate in joint house events. These events are great for meeting people from other houses.

The four houses that belong to SENG are:

Oasis, Ace, Nexus and Metanoia.





## **MAJOR PROGRAM CHOICES**

First-year students can declare their major program at the end of year one if they fullfill several requirements (to be announced). Here are the programs SENG provides.

1 0	•	
		BEng in Bioengineering
	CBE	BEng in Chemical Engineering
		BEng in Chemical and Environmental Engineering*
		BEng in Civil Engineering
	CIVL	BEng in Civil and Environmental and Engineering
	CPEG	BEng in Computer Engineering
SENG	CSE	BEng in Computer Science
32110	ECE	BEng in Electronic Engineering
	IEDA	BEng in Industrial Engineering and Engineering Management
		BEng in Decision Analytics
	MAE	BEng in Aerospace Engineering
	MAE	BEng in Mechanical Engineering
	SUSEE	BEng in Sustainable Energy Engineering*
	ISDN	BSc in Integrative Systems and Design
SENG × SSCI	DSCT	BSc in Data Science and Technology*
	EVMT	Environmental Management and Technology
AIS	DDP	BEng in one of the School of Engineering Majors & BBA (a 5-year program)
SENG × SBM × SSCI	RMBI	Risk Management and Business Intelligence

<sup>\*</sup>These SENG majors may **not** be applicable to the DDP Program

Certain "major + extended major" combinations are also available.
For further details, please check: <a href="https://emia.hkust.edu.hk/extended-majors">https://emia.hkust.edu.hk/extended-majors</a>



## **COURSES FOR PRE-ENROLLMENT**

Students can learn more about each engineering program by enrolling in introductory courses. Below you can view a list of courses mainly for first year students that are offered for pre- enrollment in 2023 Fall semester. (Credit Transfer may be applicable)

**HMAW 1905** 

Behavioral Foundations of University Education: Habits, Mindsets, and Wellness

3 Credits

This course will help students adapt to university life through advising, sharing and discussion, and applying the science of well-being to enhance their personal and interpersonal development. It also aims to foster their self-understanding and confidence as young adults who can fully enjoy their university education and career thereafter. The course has 3 components: Lectures and Seminars, Self-Directed Experience, and Advising and Community Meetings. Lectures and Seminars will orientate students to their respective Schools/IPO, provide academic advice and equip them with the scientific bases of well-being. Self-Directed Experience will provide opportunities to develop mindsets and habits for students' physical and social-emotional wellness and personal enrichment. In Advising and Community Meetings, students will bring knowledge and skills together through reflection and discussion with peers and School/IPO advisors. Topics such as learning and time management skills, purpose of university education, and planning for personal and professional development will be covered. Graded PP, P or F.

Exclusion(s): IDPO 1010

LANG 1401 or LANG 1402 Intensive English Language for University Studies or English Language for University Studies

3 Credits

LANG 1401:This is an intensive English language course for students in their first year of study who need language enhancement and proficiency training to build a strong foundation in English. Students will develop the language skills necessary to communicate effectively and complete academic tasks in an English-medium university. They will also build skills and habits for self-directed learning at university. The content of this course focuses on developing students' language foundation, and tasks and activities are designed so that they can receive enhanced teacher support and feedback.

Exclusion(s): LANG 1002, LANG 1003, Level 3 or above in HKDSE English Language

LANG 1402:This course aims for students in their first year of study and will develop students' spoken and written language proficiency. The course also introduces academic literacy skills common to all disciplines. Students will learn to evaluate others' opinions, develop strong arguments and communicate those arguments effectively in written and spoken English. In addition to traditional academic writing, the course includes elements of academic communication that go beyond the text level to incorporate academic communication that includes text and audio. They will also build skills and habits for self-directed learning at university.

Prerequisite(s): (Level 3 in HKDSE English Language with all papers at or above level 3) OR (Level 4 in HKDSE English Language) OR (Level 5 in HKDSE English Language with some papers but not all at or above level 4) OR (Overall bandscore of 6.0 in IELTS) OR (Overall bandscore of 6.5 in IELTS with some but not all subscores at or above 6.0) OR equivalence of the above

Exclusion(s): LANG 1002, LANG 1003



MATH 1012	Calculus 1A	4 Credits
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This is an introductory course in one-variable calculus, the first in the Calculus I and II sequence, designed for students that have not taken HKDSE Mathematics Extended Module M1 or M2. Topics include functions and their limits, continuity, derivatives and rules of differentiation, applications of derivatives, and basic integral calculus.

Exclusion(s): Level 3 or above in HKDSE Mathematics Extended Module M1 or M2; AL Pure Mathematics; AL Applied Mathematics; MATH 1003, MATH 1013, MATH 1014, MATH 1020, MATH 1023, MATH 1024

MATH 1013 Calculus 1B 3 Credits

This is an introductory course in one-variable calculus, the first in the Calculus I and II sequence, designed for students that have taken HKDSE Mathematics Extended Module M1/M2. Topics include functions and their limits, continuity, derivatives and rules of differentiation, applications of derivatives, and basic integral calculus.

Prerequisite(s): Level 3 or above in HKDSE Mathematics Extended Module M1/M2 Exclusion(s): AL Pure Mathematics; AL Applied Mathematics; MATH 1003, MATH 1012, MATH 1014, MATH 1020, MATH 1023, MATH 1024

## Students can also choose the following course from the *e-Advising system*.

## CENG 1000 Introduction to Chemical and Biological Engineering 3 Credits

From chemistry to engineering, molecules to useful products. Physical, chemical and biochemical transformation of materials. Survey of industries related to modern chemical and biological engineering. Basic principles of materials and energy balance. Strategy of molecular synthesis, process selection and design, economic and environmental considerations. Examples taken from a diverse range of products spanning realms of food, consumer products, energy, environment, and medicine. Case studies and team projects on process and product design. For engineering students only.

Prerequisite: Level 3 or above in HKDSE Chemistry OR CHEM 1004 OR CHEM 1010 OR CHEM 1020

CENG 1700	Introduction to Environmental Engineering	3 Credits

Fundamentals of environmental impact assessment will be discussed. Life cycle analysis of carbon and energy will be introduced using case studies. Principles of environmental engineering for control of air, water, solid and noise pollution will be discussed, including global pollution, pollution prevention and minimization. Cost of available technologies will be analyzed.

Exclusion(s): CIVL 2410



### CHEM 1008 Introductory Chemistry 3 Credits

This course targets science or engineering students with very little to no chemistry background. It provides a general introduction to basic principles of chemistry. Key topics include state of matters, atoms and elements, molecules and compounds, atomic structures and periodicity, molecular structures, quantities in chemical reactions, bonding theories, acids and bases, and solution chemistry. Students without HKDSE qualifications may seek instructor's approval for enrolment.

Exclusion(s): Level 3 or above in HKDSE 1/2x Chemistry OR HKDSE 1x Chemistry, a passing grade in AL/AS Chemistry, any CHEM courses at or above 1004-level, CORE 1120

CHEM 1020	General Chemistry 1	3 Credits
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This course targets at students who have acquired more advanced knowledge in fundamental Chemistry in high school. Key topics include atomic structure and periodicity, bonding theories, chemical energy, and properties of gases, liquids and solids. Other topics such as chemical kinetics, chemical equilibrium and organic molecules will be briefly reviewed.

Prerequisite(s): Level 3 or above in HKDSE 1x Chemistry;

Exclusion(s): CHEM 1010

CIVL 1100	Discovering Civil and Environmental Engineering	3 Credits
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A general overview of civil and environmental engineering, infrastructure development and engineering ethics is provided. The course includes both lectures and laboratory sessions, where the laboratory sessions are primarily directed to students who require the development of feasible conceptual solutions for the analysis and design of the basic problems in structural, geotechnical and environmental engineering. For first year engineering students under the four-year degree curriculum only.

COMP 1021 Introduction	to Computer Science	3 Credits
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(If you are considering to study DSCT and you have granted credit transfer in COMP1022P, you are highly recommended to take this course COMP2011 as it is required by DSCT) This course introduces students to the world of Computer Science. Students will experience a range of fun and interesting areas from the world of computing, such as game programming, web programming, user interface design and computer graphics. These will be explored largely by programming in the Python language.

Exclusion(s): COMP 1022P, COMP 1022Q, COMP 2011, COMP 2012H

ELEC 1100	Introduction to Electro-Robot Design	4 Credits
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The course introduces the fundamental knowledge on the design, implementation and evaluation of a robot and its sub-systems. It covers the basic principles of analog and digital circuits as well as robot sensing and control mechanisms. Students have to apply the knowledge and principles learned to design and build a functional robot by the end of the course. Students who have completed ELEC 2200, ELEC 2350, ELEC 2400, ELEC 2420, or ELEC 3310, must obtain instructor's approval to take this course.



**ELEC 1200** 

#### A System View of Communications: from Signals to Packets

4 Credits

Have you ever wondered what technologies go into your mobile phone or a WiFi hotspot? Through hands on work with a simple but fully functional wireless communication system, you will understand the basic engineering tools used and tradeoffs encountered in the design of these systems. This course is centered on weekly laboratories, each designed to introduce an important concept in the design of these systems. The lab sessions are supported by two one-hour lectures and a tutorial that introduce the concepts for the next laboratory, as well as reviewing and expanding the concepts learned in the previous laboratory.

Corequisite(s): (COMP 1021 OR COMP 1022P OR COMP 1022Q) AND (MATH 1003 OR MATH 1014 OR

MATH 1020 OR MATH 1024)

Mode of Delivery: Self-paced online delivery [SPO], Blended learning [BLD]

**ENGG 1100** 

First Year Cornerstone Engineering Design Project Course

3 Credits

This project course is designed specifically for first year engineering students. This course aims at providing engineering students experiential learning experience through exposing students to knowledge and skills from different SENG disciplines before making decision on their majors. Students in this course will be divided into design teams. Each team will use the acquired knowledge and skills to design and build an engineering artifact, e.g. an airship. In order to offer the course at scale, the technical components will be offered online and students would be engaged in experiential learning through working on team projects. For First year Engineering students only.

Exclusion(s): ENGG 1200

Mode of Delivery: Blended learning [BLD]

**IEDA 2010** 

Industrial Engineering and Decision Analytics

3 Credits

This course provides an introduction to industrial engineering and decision analytics (IEDA). It comprises of two parts. The first part introduces basic IE analytical tools, such as optimization, game theory, probability and statistics, at a conceptual level. In the second part, many of the IEDA practical concepts, including production and operations management, logistics and supply chain management, financial technology are introduced.

Exclusion(s): IEDA 2200

LIFS 1901

General Biology I

3 Credits

This course targets science students not having taken HKDSE 1x Biology or AL/AS Biology. It provides students with a general overview of fundamental biology: basic characteristics of life (the chemistry of life, cells), vital life processes (respiration, photosynthesis, genetics), essential concepts of evolution and ecology, and so on.

Exclusion(s): Level 3 or above in HKDSE 1x Biology, a passing grade in AL/AS Biology

**ISDN 1001** 

Introduction to Integrative Systems and Design

3 Credits

This is a foundation course in which students will learn about the societal, economical, and cultural impact of integrative systems and the importance of integrating design into the creation of integrative systems. Through lectures, discussions, case-study and presentation, hands-on dis-assembly and re-assembly exercises, students will learn about the basic design principles, design terminology, design skill-sets, design thinking and process, and how a good design relates to the design principles. Students will also learn about what is an integrative system and the importance of using technology to build an integrative system and how it is decomposed into different sub-systems that involve multiple technology components, interacting with each other.



#### **ISDN 1002**

#### Redefining Problems for the Real Needs

3 Credits

Design Research is an introduction of research methodology and methods used for exploring problems as well as identifying opportunities for design initiatives. It guides designers how to unravel needs and problems in the real world before inventing. This course introduces students various design research principles, methods and ethics for investigating people and their world. It is a learning-by-doing course in which students, work in groups, learn the principles in class and apply them in the field. The course sets out several challenges in local context. After conducting both contextual research and user research, students are guided to seek insights and identify opportunities for technological innovation aiming to solve the identified problems. Overall, students explore the real world in a lively yet methodical way.

#### **ISDN 1006**

#### Human-centered Innovation

3 Credits

A project-based, experiential course that exposes students to practice the five modules in design thinking -"Empathize", "Define", "Ideate", "Prototype" and 'Test". The unmet needs will be identified by observing the daily routine of real services and people. Research on existing solutions and how to conduct the stakeholder and market analyses will be taught for designing the needs screening matrix in needs selection. Students are going to unlock their creativity potentials through the in-class activities. The new ideas of addressing the unmet needs are generated in which the ideas are grouped ad organized into a concept map. To translate a promising concept from an idea into a rudimentary design, the concept exploration is facilitated by prototyping. The prototypes are tested by the potential users. This course aims to develop students' communication, interpersonal, analytical, design and project management skills.

Corequisite(s): ISDN 1002

Mode of Delivery: Experiential learning [EXP]

#### **MECH 1902**

#### Energy Systems in a Sustainable World

3 Credits

Various fuels used by mankind, fossil and renewable sources; power generation technologies and the controversies; energy efficient technologies and the applications in buildings and consumable products; energy efficient manufacturing technologies; low energy infrastructure and impact to modern life style; myths behind sustainable energy systems and the debates; energy entrepreneurship, case studies and social impact.

#### **MECH 1906**

#### Mechanical Engineering for Modern Life

3 Credits

Mechanical Engineering covers the broadest range of engineering amongst all related disciplines. In addition to the production of modern products useful in daily life, it is also associated with power generation and distribution, as well as new materials development. These will be used to explain mechanical engineering principles and their usage in product design and manufacture. Contents include Engineering Materials, Solid Mechanics and Structural Design, Renewable Energy, Indoor Environmental Quality, Smart Green Building, Energy Design, Sensors and Instrumentation, Robots and Controls, together with MEMS and LED Fabrication. First year students are preferred.

#### **MECH 1907**

Introduction to Aerospace Engineering

3 Credits

Introduction to the field of Aerospace engineering, discussion of basic aerospace systems and disciplines, working vocabulary of the field. Basic concepts. Demonstration through examples.



PHYS 1101	Introductory Physics	4 Credits
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This course is for students with no physics background. It can serve as a standalone introduction to physics or as a preparatory course for students who intend to take PHYS 1112. It is not a preparatory course for PHYS 1111; students with no calculus background who plan to take General Physics should take calculus concurrently with PHYS 1101 so that they meet the prerequisites for PHYS 1112. Topics covered include heat and gases, force and motion, waves, and electricity and magnetism.

Exclusion(s): Level 3 or above in HKDSE 1/2x Physics or HKDSE 1x Physics; any PHYS courses at 1100-level or above

PHYS 1112	General Physics I with Calculus	3 Credits
PHYS 1112	General Physics I with Calculus	3 Credits

PHYS 1111 and PHYS 1112 target students who have learned the most basic knowledge in physics in high school. Students with more advanced physics background should consider taking PHYS 1312. PHYS 1112 employs a calculus-based approach. Students without knowledge of calculus should take PHYS 1111 instead. Key topics include motions and Newton's Laws, work and energy, conservation of energy and momentum, rotation, rigid body, simple harmonic and damped oscillations, forced oscillations, standing waves and sound waves, kinetic theory and the laws of thermodynamics. Students without the physics prerequisite but who have taken PHYS 1101 or equivalent, and/or without the mathematics prerequisite but who have taken MATH 1012/MATH 1013/MATH 1020/MATH 1023 or equivalent may seek instructor's approval for enrolling in the course.

Prerequisite(s): (Level 3 or above in HKDSE 1/2x OR in HKDSE 1x Physics) AND Level 3 or above in HKDSE Mathematics Extended Module M1/M2; Exclusion(s): PHYS 1111, PHYS 1312

#### Engineering Introduction courses include:

BIEN 1010	CENG 1000	CENG 1500	CENG 1700
CIVL 1100	COMP 1021	ELEC 1100	ELEC 1200
ENGG 1100	IEDA 2010	ISDN 1001	ISDN 1002
ISDN 1006	MECH 1902	MECH 1906	MECH 1907





### **COMMON CORE COURSES**

University education is more than just professional training. The common core courses bring students a balanced and broad education that nurtures them to be responsible citizens and independent thinkers with the heart and aspiration to excel in their endeavours. Apart from the Major Program requirements, students are also required to take a total of 30 credits from 3 tiers of common core groups, which provide students with more inter-disciplinary and experiential learning opportunities.

Common Core Groups	Credits	Common Core Areas	Credit Breakdown	
Experiencing (from Year 2 Summer)	0 to 3	Undergraduate experiential Opportunities Programs (UxOP):  • Undergraduate Research Opportunities Program (UROP);  • Undergraduate Teaching Opportunities Program (UTOP);  • Undergraduate Practice Opportunities Program (UPOP);  • Undergraduate Global Challenges and Opportunities Program (UCOP) (can be substituted by any Broadening courses)	0 to 3	
Broadening (with specific		Arts (A)		
outcomes) (from Year 1 Spring		Humanities (H)	12 credits under stipulated	
upon completion of one E-Comm	12 to 18	Science (S)	program-specific areas; 0 to 6 credits under any areas as	
course)		Technology (T)	substitution to CTDL/ UxOP	
		Social Analysis (SA)		
Foundations (skillsets & mindsets)	12 to 15	Cognitive Foundations of University Education: Critical Thinking and Data Literacy (CTDL) (can be taken in any year; can be substituted by any Broadening courses)	0 to 3	
(preferably taken in Year 1)		Behavioral Foundations of University Education: Habits, Mindsets, and Wellness (HMW) (year-long in Year 1)	3	
		English Communication (E-Comm) (in Year 1)	6	
		Chinese Communication (C-Comm) (in any year)	3	
	30	Total Credits Required		

Scan the QR code on the right to find the course list and further details of the common core framework.





## **ACADEMIC CALENDAR**

Week	s	М	т	w	т	F	s		Events		General Holidays
	August, 2023										
	AL	igus	st, a				_				
		_	1	2	3	4	5	40	T		
	6	7	8				12	12	Last day of Summer Term, 2022-23		
					17						
	20				24	25	26	24-25	Class Enrollment starts – All UG students *		
	27	28	29	30	31			24	Class Enrollment starts – All PG students *		
								31	Last day for submission of final thesis examination results and thesis copies for Summer 2022-23		
									dation period for class enrollment will be arranged hese dates]		
	Sc	pte	mh	or							
1	36	pre	,,,,,,	01		1	2	1	Commencement of the 2023-24 Academic Year		
1	3	4	5	6	7	8	9	1	Fall Term commences		
2	250	11	12	13	14	•	-	1-14	Add/Drop Period		
3	17				21			15-28	Extended Drop Period – for PG courses only		
4							30	10 20	Extended proper energy for the decircle only	30	The day following the Chinese
											Mid-Autumn Festival
	Oc	ctob	per								
5	1	2	3	4	5	6	7			2	The day following National Day
6	8				12						
7					19						
8			_	25	26	27	28			23	Chung Yeung Festival
9	29	30	31								
	No	ovei	mbe	er							
9				1	2	3	4				
10	5	6	7	8		10					
11					16						
12					23		25				
13	26	27	28	29	30			30	Last day of Fall Term classes		
	De	cei	mbe	er							
						1	2	1-6	Study Break		
	3	4	5	6	7	8	9	7-19	Fall Term Examinations		
	10				14						
	17				21			19	Last day of Fall Term		
	24				28					25	Christmas Day
	31									26	The first weekday after
	100										Christmas Day



First/Last day of Term classes

\_\_\_ Examination Period/Break

Boldtype Important dates for students to note



Week	s	М	т	w	т	F	s		Events		General Holidays
	Ja	ınua	ary,	20	24			1	Last day for submission of final thesis examination results and thesis copies for Fall	1 T	he first day of January
		1	2	3	4	5	6	2	Winter Term commences		
	7	8	9	10	11	12	13	25-26	Class Enrollment starts - All UG students *		
	14	15	16	17	18	19	20	25	Class Enrollment starts – All PG students *		
1	21 28	22 <b>29</b>			25	26	27		ation period for class enrollment will be arranged nese dates]		
								29 30	Last day of Winter Term Last day for submission of final thesis examination results and thesis copies for Winter		
	E	bru	an,					31	Spring Term commences		
1	10	Diu	ai y		1	2	3	31/1-16/2	Add/Drop Period		
2	4	5	6	7	8	9	10			10	/
3		12	13	14	15			17/2-1/3	Extended Drop Period – for PG courses only	10	Lunar New Year's Day
4	18				22			1112 110	Extended proprioting	12	The third day of Lunar New Year
5		26				23	24			10	
3	25	20	21	20	29					13	The fourth day of Lunar New Year
											rear
5	Ma	arcl	1			1	2				
6	3	4	5	6	7	8	9				
7			_	-	14	-	•				
	10										
8	17				21			00/0 5/4	Mid Town Boards		
9		25	26	27	28	29	30	28/3-5/4	Mid-Term Break	29	Good Friday
9	31									30	The day following Good Friday
9 10 11 12 13	7 14 21		16 23	17	11 18 25	12 19	20			1 4	Easter Monday Ching Ming Festival
	Ma	ay									
13				1	2	3	4			1	Labor Day
14	5	6	7	8	9	10	11	10	Last day of Spring Term classes		
	12	13	14	15			18	11-16	Study Break	15	The Birthday of the Buddha
							25	17-29	Spring Term Examinations		
					30			29	Last day of Spring Term		
	, lu	ine									
	00						1				
	2	3	4	5	6	7	8	16	Last day for submission of final thesis examination		
	9	10	11	12	13	14	15		results and thesis copies for Spring	10	Tuen Ng Festival
	16	-					22	17/6-10/8	Summer Term		
							29				
	30										
	Ju	lly									
		1	2	3	4	5	6			1	Hong Kong Special
	7	8	9	10	11	12	13				Administrative Region
	14	15	16	17	18	19	20				Establishment Day
	21	22	23	24	25	26	27				
		29									

#### Academic Year 2024-25 (Provisional)

1 - 4 April 2025



## **DIRECTORY**

#### SCHOOL OF ENGINEERING

Office of the Dean of Engineering
6/F Academic Building, Rm. 6542 (Lifts 27-28)

Email: sengug@ust.hk
Web: www.seng.hkust.edu.hk
Web:www.seng.hkust.edu.hk/undergraduate
/exchange

Center for Engineering Education Innovation
(Advising Office)

2/F, Academic Building, Rm. 2581 (Lifts 27-28)

Tel: (852) 2358 5934 or
(852) 2358 8224

Email: seng@advisor@ust.hk
Web: www.e2i.hkust.edu.hk

#### **DEPARTMENT / PROGRAM OFFICE**

Dept. of Chemical and Biological Engineering	Tel: (852) 2358 7130
4/F, Academic Building, Rm. 4566 (Lifts 27-28)	Email: cbe@ust.hk
	Web: www.cbe.hkust.edu.hk
Dept. of Civil and Environmental Engineering	Tel: (852) 2358 7154
3/F, Academic Building, Rm. 3575 (Lifts 27-28)	Email: civilweb@ust.hk
	Web: www.ce.ust.hk
Dept. of Computer Science and Engineering	Tel: (852) 2358 7000
3/F, Academic Building, Rm. 3528 (Lifts 25-26)	Email: csdept@cse.ust.hk
0, , ,	Web: www.cse.hkust.edu.hk
Dept. of Electronic and Computer Engineering	Tel: (852) 2358 7036
3/F, Academic Building, Rm. 2457 (Lifts 25-26)	Email: eequestions@ust.hk
	Web: <u>www.ece.hkust.edu.hk</u>
Dept. of Industrial Engineering and Decision Analytics	Tel: (852) 2358 7100
5/F, Academic Building, Rm. 5551 (Lifts 27-28)	Email: ieug@ust.hk
0, , ,	Web: <u>www.ieda.ust.hk</u>
Dept. of Mechanical and Aerospace Engineering	Tel: (852) 2358 8654
2/F, Academic Building, Rm. 2568 (Lifts 27-28)	Email: menquiry@ust.hk
0, , ,	Web: <u>www.mae.ust.hk</u>
Computer Engineering Program Office	Tel: (852) 2358 8512
2/F, Academic Building, Rm. 2457 (Lifts 25-26)	Email: ustcpeg@ust.hk
0, , ,	Web: <u>www.cpeg.hkust.edu.hk</u>
Academy of Interdisciplinary Studies Office	Tel: (852) 3469 2482
4/F, Academic Building, Rm. 4376 (Lifts 17-18)	Email: ais@ust.hk
	Web: www.ais.hkust.edu.hk
Division of Intergrative Systems and Design	Tel: (852) 3469 2723
6/F, Academic Building, Rm. 6532 (Lifts 27-28)	Email: isd@ust.hk
. ,	Web: www.isd.hkust.edu.hk

#### **OTHERS**

Scholarships and Financial Aid Office	Tel: (852) 2358 5853
5/F, Academic Building, Rm. 4592 (Lift 29-30)	Email: sfao@ust.hk
	Web: <u>www.sfao.hkust.edu.hk</u>
Student Housing and Residential Life Office	Tel: (852) 2358 6664
G/F, HG Hall II	Email: ughousing@ust.hk
	Web: <u>www.shrl.hkust.edu.hk</u>
Academic Registry Office	Tel: (852) 2623 1111
1/F, Academic Building, Rm. 1381 (Lifts 17-18)	Email: registry@ust.hk

Web: www.registry.hkust.edu.hk



## **FREQUENTLY ASKED QUESTIONS**

#### What courses do I need to take for my program?

A list of course descriptions and credit requirements for all undergraduate programs offered at HKUST can be found in the Program Catalog and Course Catalog.

#### How do I enroll in courses?

Official course enrollment is completed online through the student Information System (SIS). Registered students can access SIS via "Student Intranet" at <a href="https://hkust.edu.hk/stu\_intranet">https://hkust.edu.hk/stu\_intranet</a>. Details and instructions for completing this process can be found on the ARO website.

#### What are prerequisites, co-requisites, and exclusions?

According to HKUST's Academic Regulations:

"A prerequisite is a level of attainment in public examinations or a course which must be taken and passed before registration for credit in a specified course.

A co-requisite is a course which must be taken prior to, or at the same time as, the specified course.

An exclusion means you cannot enroll in the course in question if you reached a specified level of attainment in a public exam or if you have taken, or are registered in, a specified HKUST course"

#### **Useful Links:**

SENG Registration



UG Program and Course Catalog



e-Advising System



UG Course Schedule





#### How do I get credit transfer?

Students may be granted transfer credits in recognition of studies completed prior to admission to HKUST. Details on the application procedures for credit transfers are given on the ARO website. A database listing the courses that have been approved for transfer credits can be found in the section entitled "Course Equivalence Database".

#### What are enrichment programs?

SENG offers a number of enrichment programs like exchange, internships, and research opportunities. Details can be found on the SENG website under the "Academics" section.

#### How can I find where the classrooms are?

Classrooms in the academic building are numbered according to the nearest lifts. Path Advisor is an online map for students to search the nearest lifts and the building floor plan. Path Advisor App is also available.

#### I forgot my ITSC password, what can I do?

You can go to <a href="https://myaccount.ust.hk/passwd/forget">https://myaccount.ust.hk/passwd/forget</a> and follow the instruction to reset your ITSC password.

#### **Useful Links:**

UG Academic Guidelines



UG Credit Transfer



SENG Website



Reset ITSC Account







## **TIPS FOR FRESHMEN**

#### **Useful Apps**





#### **HKUST Student**

This app can help you check grades, book facilities, view timetables, and even check your student card balance. If you forget your student card, you can use e-identity to access facilities. It's a must-have app for our university!





#### **HKUST Path Advisor**

HKUST can be like a maze for freshmen, but Path Advisor can help you find the shortest route to your desired destination, so you don't have to wander around aimlessly and get lost.





#### **HKUST iLearn**

There are three main apps: Canvas, SFQ and iPRS in HKUST iLearn. The iPRS system is used for interaction in classes. Usually, the professor will give you a code to answer questions using this app during class. The responses and poll results can be shown instantly with your participation. Be aware that your attendance may also be recorded.





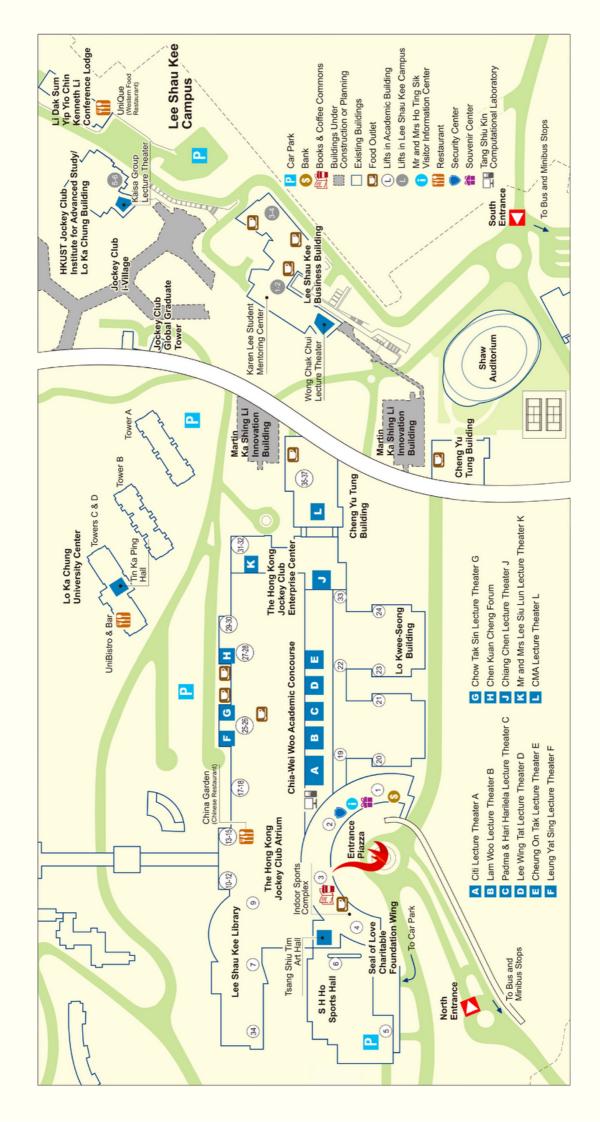
#### **USThing**

A must-have app for students of our university, which allows you to book facilities, check grades, view timetables, find places to eat, and even locate drinking fountains. If you have classes scheduled, you'll receive notifications reminding you to attend.

From The Engineering Students' Union, HKUSTSU



# **CAMPUS MAP**







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