INTEGRATIVE SYSTEMS & DESIGN

Why Design?
Developing students’ design mindset to tackling global challenges in the real world is one key objective of the division. The program introduces fundamental design principles and methods, and key design attributes including observation, creativity, visual thinking, prototyping and aesthetic sensibility. An emphasis on design would broaden students’ perspective from merely advancing technology to creating innovative solutions for new problems.

Enrichment Activities
- Design Competitions
- International Industry-Sponsored Contests
- Overseas Exchange with Project-Based Learning Focus
- Industrial Experience and Internships

Program Outcomes
Graduate attributes include the following:
- Design and Systems Thinking
- Technology Competencies
- Entrepreneurial Spirit
- Global Vision
- Life-long Learning Ability

Curriculum Highlights
- Multidisciplinary Design Projects
- University Common Core Courses in Language, Arts, Humanities and Cultural Studies
- Student-centric Experiential and Blended Learning Modules
- Internship and Industrial Placements

Year 1
- Fundamental Design Courses: Sketching, Digital Design and Rapid Prototyping, Creative Strategies, Strategic Innovations, etc.

Year 2 - 4
- Team-Based Year-Long Cornerstone Design Projects
- Advanced Design Courses: Systems Thinking and Design, Product Development, Product Management, etc.
- Elective Courses related to different Integrative Systems Technical Streams

Capstone Partners
ISD has a wide collaboration network with leading industries.

WHAT IS INTEGRATIVE SYSTEMS & DESIGN (ISD)?
ISD hosts a range of transdisciplinary research and experiential learning both within HKUST and on the global stage. Division of ISD epitomizes the use of project-based experiential learning in design education. We nurture innovators and researchers with design and systems thinking, and entrepreneurial spirit.

What are Integrative Systems?
Integrative Systems are ones that have multiple components, subsystems cooperating so that the overall system is able to fulfill the required functions.
Bachelor of Science in Integrative Systems and Design (ISD)

理学士（綜合系統與設計）

Jupas code: JS5211
Program Overview

The mission of the Division of Integrative Systems and Design is to nurture the new generation of innovators that can work across multiple disciplines and create disruptive innovations to solve the world’s grand challenges. Through the emerging project-based active-learning teaching pedagogy and embedding design and system thinking training into the curriculum, students will develop their technical competency, design thinking, understanding of complex and multi-disciplinary systems, and entrepreneurial spirit.

What are Integrative Systems?

Integrative Systems are ones formed by multiple components and subsystems cooperating to fulfill an overall system function. To tackle complex problems of the ever-changing world, a more holistic systems perspective will be required to truly innovate. ISD uses integrative systems ranging from Robotics to Smart City to Biomedical Systems as vehicles to advance learning and knowledge through active teaching and transdisciplinary research.

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Curriculum and study pattern

- Multidisciplinary Design Projects
- University Common Core Courses in Language, Arts, Humanities and Cultural Studies
- Industrial Experience Internship
- Student-centric Experiential and Blended Learning Modules

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Program Highlight

Graduate attributes:

- Design and System Thinking
- Technology Competencies
- Entrepreneurial Spirit
Student Enrichment Activities

ISD encourages and hosts enrichment activities that facilitate students to have wider exposure and hands on experience with systems and design, including design competitions, international industry-sponsored contests, overseas exchange with project-based focus, industrial experience and internships.

Admission Requirements

Targeted recruitment of students with experience and potentials to excel in project-based learning effective learning-by-doing.

Three components will be considered in the admission assessment:

1. Design and Technology Experience Portfolio
2. Public examination results
3. Practical interview through design activities
   - Creative & System Thinking
   - Maker Potential
   - Teamwork & Communication

Contact

Admission details and procedures:
isd.ust.hk/admissions/

Early application is recommended for international applicants for visa processing.

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