

## International Research Enrichment (IRE) Program

The International Research Enrichment (IRE) program is designed for students who are interested in pursuing a research career in science or broadening their exposure to research during their undergraduate studies. It emphasizes curiosity and grit, which are the essential attributes to a successful career in scientific research. Building upon the premise that exposure to international research environments at an early stage is essential to a fruitful research career, the program offers outstanding science students an early opportunity to nurture their research abilities and solidify their discipline-specific knowledge in regular Science programs.

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## **Program Curriculum**

The IRE program has a similar curriculum structure to the Science (Group A) and Science (Group B) programs, but it distinguishes itself from the regular science program by providing students with the following:

- Free choice of major programs among Biochemistry and Cell Biology, Biotechnology, Chemistry, Mathematics, Ocean Science and Technology, and Physics
- Admissions to the Undergraduate Research Opportunities Program (UROP)
- Exchange and internship opportunities in renowned foreign universities/research institutes
  - Summer research internship opportunity in foreign universities and institutions
  - Scholarship support for overseas learning trips

Additional requirement for IRE students C	redits
SCIE 1500 Guided Study on Research I	1
SCIE 2500 Guided Study on Research II	1
SCIE 3900 International Summer Research Experience	3
UROP 1000/1100 Undergraduate Research Opportunities Series	1
Additional Science 2000-level or above Electives	6
Total number of additional credits:	12

## **Program Highlights**

- Tailor-made team building activities and field trips
- Participation in advanced research projects under the supervision of world-class professors
- Opportunities to meet with Nobel Laureates and renowned scientists
- Individualized Research Guidance and Mentoring from experienced faculty





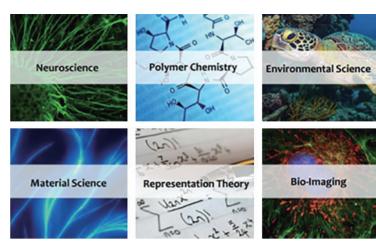
The IRE program provides a nurturing environment to encourage students to interact among themselves and to delve deep into the subject(s) of their interests without limitations.

Incorporation of a foreign research element broadens students' horizon in research skill development and fosters understanding of the relation between different research areas. This is essential for Hong Kong students because of the limited scope of research topics available in Hong Kong universities. The title "International Research Enrichment" emphasizes this aspect of the program.

An IRE student went on an oversea research internship at ETH Zurich in Switzerland



An IRE graduate pursues postgraduate studies at University of Pennsylvania in the US



Top-notice fundamental science research gearing towards paradigm shift

## **Overseas Summer Research Internship**

Programe	2023 Summer Research Internship Host Institution		
BCB	Harvard, USA	NUS, Singapore	
BIOT	Oxford, UK		
CHEM	Caltech, USA	UIUC, USA	
	Scripps Research, USA	EPFL, Switzerland	
MATH	Cornell, USA	Stony Brook, USA	
	NUS, Singapore	ULB, Belgium	
PHYS	UCLA, USA	Perimeter, Canada	
	Stuttgart, Germany	CERN, Switzerland	

## **Further Studies Opportunities**

Building upon the premise that exposure to international research environments at an early stage is essential to a fruitful research career, the program offers outstanding science students the opportunity to nurture their research abilities and solidify their discipline-specific knowledge in regular science programs. Most of the graduates will pursue further studies in renowned universities worldwide.

Selected PhD Offers of the Class 2023

Institution	Research Area
Harvard University	Physics
Northwestern University	Mathematics
Northwestern University	Chemistry
Pennsylvania State University	Mathematics
University of Indiana	Mathematics
École Polytechnique Fédérale de Lausanne	Life Science
University of California, Santa Barbara	Physics
University of Michigan	Physics

## **Research Support Scholarships**

The following scholarships are available exclusively to support IRE students' research activities:

- 1. Lee's Pharmaceutical Kanya Lee Scholarship
- 2. H S Chau Foundation Overseas Research Grant for Young Women Scientists



#### **Words from IRE Graduate**

The International Research Enrichment program at HKUST gave me the chance to do hands-on research from the first year of my studies, and the flexibility to explore different areas of science before making a decision on which subject to pursue. The close-knit IRE community has also given me a circle of good friends who are pursuing the same goal. Also, the School of Science's exchange program and the IRE program overseas research internship has given me the opportunity to study and do full-time research in the United States, which proved to be an unforgettable experience and valuable learning opportunity.

#### Sonia CHOY

BSc in Mathematics (International Research Enrichment Track), Class of 2023

## **Admissions Requirements**

Students can apply for the IRE program through direct choice in JUPAS / Non-JUPAS admissions scheme, or apply for transfer from the regular Science (Group A) program or Science (Group B) program of the School of Science into IRE program after their first year of study. Students interested in IRE program are encouraged to include both *IRE program (JS5101)* and either *Science (Group A) program (JS5102)* or *Science (Group B) (JS5103)* in their JUPAS / Non-JUPAS program choices.

### **JUPAS**

Program-based Entry (JS5101)

**HKDSE** applicants with one of: M1 / M2 / Biology / Chemistry /

Physics

#### Non-JUPAS

Applicants with international qualifications (IBDP, GCEAL, SAT, etc.) with one senior level subject from: Biology / Chemistry / Mathematics / Physics

# JOIN IRE PROGRAM GO BEYOND YOUR LIMITS FIND TRANSFORMATION HERE

#### School of Science – Undergraduate Admissions

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#### **IRE Program**

Website : science.hkust.edu.hk/programs/

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IRE website



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