

Experiential Learning

Faculty of Science
The University of Hong Kong



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SHKU FACULTY OF SCIENCE
Science THE UNIVERSITY OF HONG KONG
香港大學理學院

Faculty-based Experiential Learning and Outside Classroom Learning Experience

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Experiential Learning Activities

- To complement and enhance the curriculum so as to give students an all-rounded and holistic education;
- To require students to tackle real-life issues and problems by drawing on theoretical knowledge that they have learnt in formal curriculum;
- To address the limitations in lecture and classroom-based learning.



Experiential Learning Activities (Con't)

- Project-based Learning
 - Undergraduate Research Opportunities
 - Final Year Project
 - Directed Studies
 - Summer Research Fellowship (SRF) Scheme
 - Overseas Research Fellowship (ORF) Scheme
 - Undergraduate Research Fellowship Programme (URFP)
 - Undergraduate Research Colloquium for Science Students
 - Seminar Course
 - Capstone Experience
- Field Studies
- Discipline Internship
- Student Exchange Programme / Visiting Studies / Summer Schools offered by Faculty/School/Departments



Experiential Learning Activities (Con't)

One Mainland China, One Overseas Learning Opportunity

- To promote global citizenship and competitiveness, students are strongly encouraged to participate in at least one mainland China and one overseas learning opportunity, with duration of **no less than three weeks** of which at least two weeks must be outside Hong Kong, in their undergraduate study

Stay tuned for the Opportunities at:



International Affairs Office
Admissions and Academic Liaison Section, The Registry



ACADEMIC ADVISING &
SCHOLARSHIPS OFFICE
THE UNIVERSITY OF HONG KONG



HKU Summer Institute



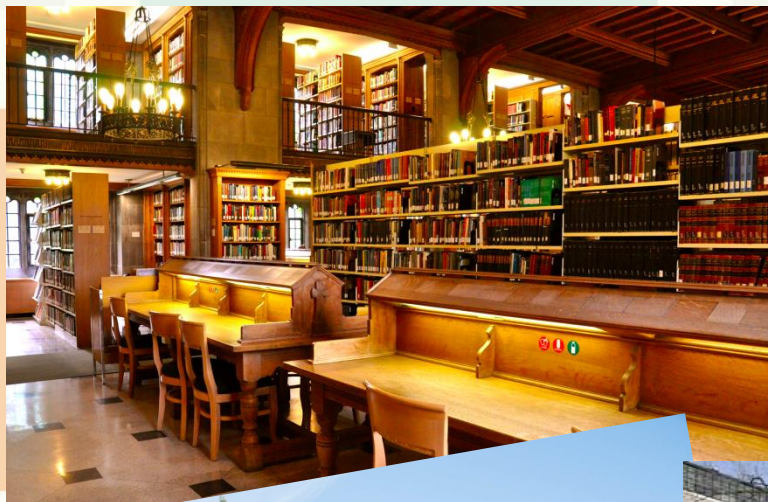
香港大學中國事務處
China Affairs Office, The University of Hong Kong





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Study Abroad Opportunities



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Faculty Exchange Programme

Host Institution:

- The University of Sydney, Australia
- Technical University of Denmark, Denmark
- Technical University of Munich, Germany
- KTH Royal Institute of Technology, Sweden
- National Taiwan University, Taiwan

<https://www.scifac.hku.hk/current/ug/el/exchange/faculty-exchange-programme>



Departmental Exchange Programme

Host Institution:

- University of Eastern Finland, Finland
- National School for Statistics and Information Analysis, France*
- National University of Singapore, Singapore

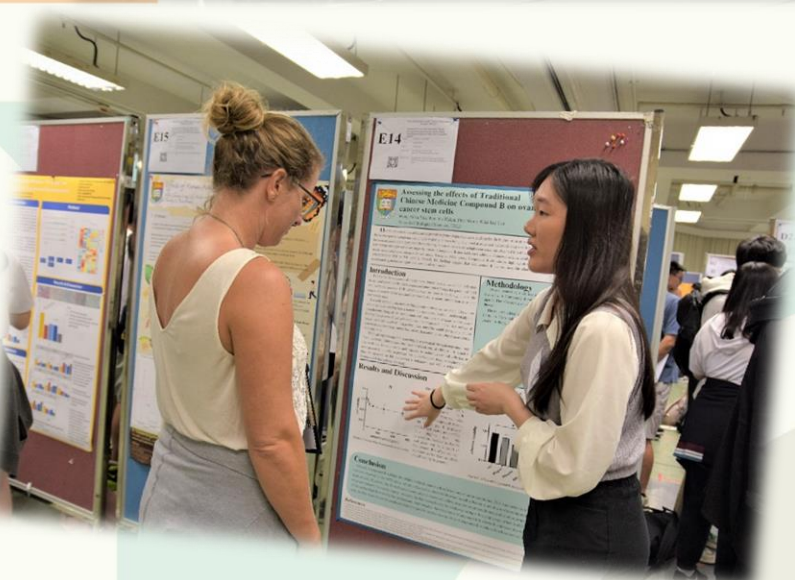
<https://www.scifac.hku.hk/current/ug/el/exchange/departamental-exchange-programme-under-faculty-of-science>





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Project-based Learning



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Undergraduate Research Opportunities:

**Summer Research Fellowship (SRF) /
Overseas Research Fellowship (ORF)**

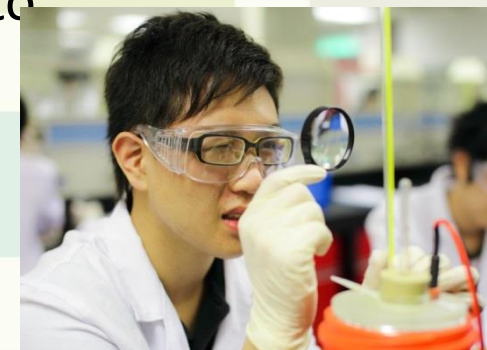
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SRF/ ORF

Background & Objectives

- Launched in 2007
- Enable students to attempt **specific research topics** that cater to their individual interests and abilities
- Encourage students **taking initiative** and a **more active role** in their own learning
- Provide a platform for students to **integrate theory and practice**, and to **understand limitations of their current knowledge**
- Engage students in research of their majored science discipline





SRF/ ORF (Con't)

Eligibility

- BSc, BSc&MRes, BSc&LLB, BSc(ActuarSc)* or BAsSc(AppliedAI)* in non-final year of study
- Recommendation of a prospective supervisor

** students admitted in 2024-25 or before*



SRF vs ORF

	SRF	ORF
Location	Within the Science School/Departments or the School of Biomedical Sciences	Overseas institutions
Subsidy	A stipend of HK\$16,000*	A stipend of HK\$16,000* plus airfare on a reimbursement basis (80% of the actual airfare and capped at HK\$12,000 in maximum)

Remarks:

* Successful applicants are NOT allowed to receive sponsorship from other funding sources for the same research project



SRF vs ORF (Con't)

	SRF	ORF
Requirements	<ol style="list-style-type: none"> 1. Complete the research project (duration is at least 2 months) under the supervision of research supervisors (both external and internal supervisors are required for the ORF Scheme) 2. Submit a research synopsis of 500 – 1,000 words on your project, a short passage of programme sharing, and a poster in September (for all participants) 3. Participate in Poster Presentation in October (for all participants) 4. Attend Research Colloquium in October/November (five to six best poster presenters will give an oral presentation in the Research Colloquium) 	





SRF/ ORF (Con't)

Application Procedures

1. Search for your interest area
2. Consult the teachers in your interest field about your research plan
 - Approach the teachers directly
 - Through your home Schools/Departments or teachers
 - Read their research publications beforehand
3. Fill in the application form
4. Submit your **application form** with a **recommendation letter** from your prospective supervisor and a **research proposal** (not more than 500 words on a A4-size paper) to the Faculty of Science Office before the stipulated deadline





SRF/ ORF (Con't)

Selection Criteria

- Quality of the research proposal
- Recommendation of the prospective supervisor
- Interview performance
- Academic merits





SRF/ ORF (Con't)

Recognition

- Recorded in the academic transcript
- Certificate of completion
- Awards:
 - Best Poster Presenters (for ***Poster Presentation***) – 5 to 6 winners
 - Best Colloquium Presenter (for ***Research Colloquium***) – 1 winner





Undergraduate Research Opportunities:

Project Courses / Directed Studies Courses

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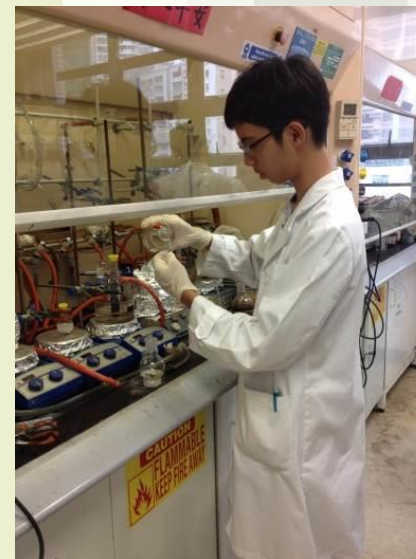
Project Course/ Directed Studies Course

Objectives

PROJECT COURSES

(12 credits each; year long)

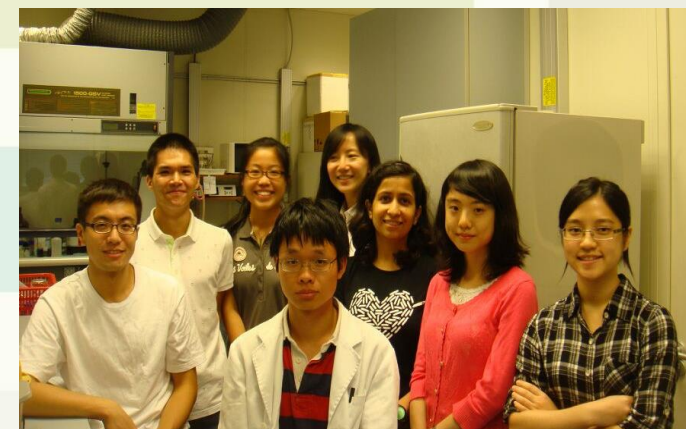
- To provide **experience of research** to students through planning and carrying out a project under the supervision of an academic staff
- To enhance student's knowledge, ability and interest in **advanced studies in the discipline**



DIRECTED STUDIES COURSES

(6 credits each; semester long)

- To enhance student's knowledge on a **particular topic in the discipline** under the supervision of an academic staff



Project Course/ Directed Studies Course (Con't)

List of Project Courses & Directed Studies Courses

Project Courses	Directed Studies Courses
BIOC4999 Biochemistry Project	BIOC3999 Directed Studies in Biochemistry
BIOL4991 Ecology & Biodiversity Project	BIOL3991 Directed Studies in Ecology & Biodiversity
BIOL4992 Food & Nutritional Science Project	BIOL3992 Directed Studies in Food & Nutritional Science
BIOL4993 Molecular Biology & Biotechnology Project	BIOL3993 Directed Studies in Molecular Biology & Biotechnology
BIOL4994 Biological Sciences Project	BIOL3994 Directed Studies in Biological Sciences
CHEM4999 Chemistry Project	CHEM3999 Directed Studies in Chemistry
EASC4999 Earth Sciences Project	EASC3999 Directed Studies in Earth Sciences
ENVS4999 Environmental Science Project	ENVS3999 Directed Studies in Environmental Science
MATH4999 Mathematics Project	MATH3999 Directed Studies in Mathematics
PHYS4999 Physics Project	PHYS3999 Directed Studies in Physics
ENTR4999 Entrepreneurship Project	APAI3799 Directed Studies in Applied AI #
APAI4798 Applied AI Project #	STAT3799 Directed Studies in Statistics
STAT4798 Statistics and Actuarial Science Project*	
STAT4799 Statistics Project	

* For BSc(ActuarSc) students admitted in 2024-25 or before
For BASc(AppliedAI) students admitted in 2024-25 or before



Undergraduate Research Opportunities:

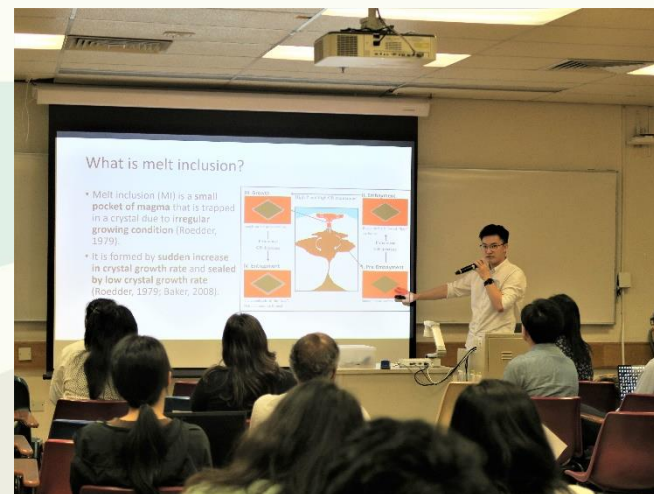
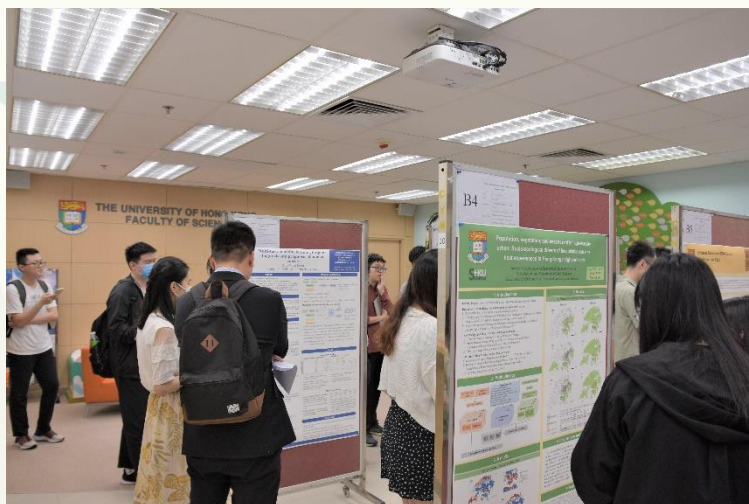
UG Research Colloquium for Science Students

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UG Research Colloquium for Science Students

Background & Objectives

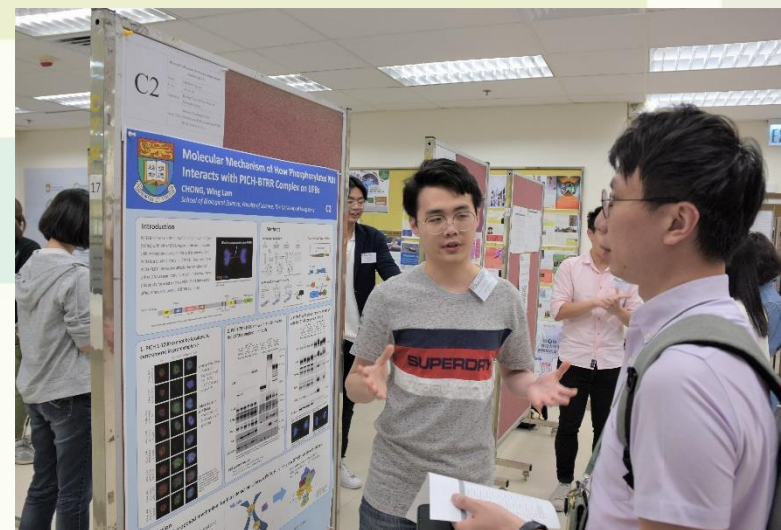
- Launched in 2007
- To provide a platform for Science undergraduates taking project or directed studies courses to **share their research findings** with others, and to **gain experience in communicating scientific knowledge in a professional setting**
- To demonstrate project-based learning to other Science undergraduate students of junior years and encourage them to enroll in projects in their subsequent years of study



UG Research Colloquium for Science Students (Con't)

Poster Presentation

- Students are **nominated** by the Schools/Departments.
- Each participant is required to submit a **poster**, a **written report/synopsis** of his/her project, and **be present in the Poster Presentation** to share his/her research findings.
- The best two presenters in each group will be selected to do a PowerPoint presentation in the **Research Colloquium**.
 - Group A - Quantitative Reasoning
 - Group B - The Physical World
 - Group C - Life & Living



UG Research Colloquium for Science Students (Con't)

Research Colloquium

- The six best presenters in the Poster Presentation will give a **10-minute presentation** on their research findings and a prize will be awarded to the best participant.
- All nominated students of the activity are required to attend the Research Colloquium and ask questions to the speakers.





Field Studies



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SHKU
Science

Young Scientist Scheme (YSS)

*Providing outstanding undergraduate students
with ample early research experiences*



Young Scientist Scheme (YSS)
for Outstanding Students in 6901 Bachelor of Science & 6688 Science Master Class
HKU-Cambridge Undergraduate Recruitment Scheme (Natural Sciences)

Entrance

- Automatic for JUPAS 6901 students with best 5 HKDSE score 35 or above and 6688 students
- Selected Non-JUPAS students

Highlights

- Summer Research Fellowship
- Overseas Research Fellowship
- International exchange, visiting or summer study
- International scientific conference
- Research mentor
- Entrance scholarship
- Stipends for research programmes





Other Opportunities

OTHER OPPORTUNITIES



**Overseas / Mainland
Experiential Learning
Funding from the Faculty of
Science**



Internships



**Globalink Research
Internship**



**Science Student
Ambassadors Scheme**



**Sponsorship for
International Scientific
Conference Participation for
Science Undergraduate
Students**



Student Societies



**Professional Preparation
Programme for Science
Students**



**Career Opportunities and
Other Activities for Science
Students**