Experiential Learning

Faculty of Science
The University of Hong Kong
Faculty-based Experiential Learning and Outside Classroom Learning Experience
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 and Professional Preparation Programme
- 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:

HKU Summer Institute
Study Abroad Opportunities
Faculty Exchange Programme

Host Institution:

- The University of Sydney, Australia
- University of Prince Edward Island, Canada
- Technical University of Denmark, Denmark
- University of Macau, Macau
- National Chiao Tung University, Taiwan
- 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

Project-based Learning
Undergraduate Research Opportunities:

Summer Research Fellowship (SRF) / Overseas Research Fellowship (ORF)
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(ActuarSc) or BASc(AppliedAI) in non-final year of study
• Recommendation of a prospective supervisor
<table>
<thead>
<tr>
<th>Location</th>
<th>SRF</th>
<th>ORF</th>
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<tbody>
<tr>
<td></td>
<td>Within the Science School/Departments or the School of Biomedical Sciences</td>
<td>Overseas institutions</td>
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<tr>
<td>Subsidy</td>
<td>A stipend of HK$16,000</td>
<td>A stipend of HK$16,000 plus airfare (on a reimbursement basis; and the maximum subsidy is HK$12,000)</td>
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<td>Requirements</td>
<td>SRF</td>
<td>ORF</td>
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<td>1. Complete the research project (duration is at least 2 months) under the supervision of research supervisors (both internal and external supervisors are required for ORF Scheme)</td>
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<td>2. Submit a research synopsis of 500 – 1,000 words on your project, a short passage of programme sharing, and a poster in September</td>
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<td>3. Participate in Poster Presentation in October</td>
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<td>4. Attend Research Colloquium in October/November; five to six best poster presenters will give an oral presentation in this Research Colloquium</td>
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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 an 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
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
## List of Project Courses & Directed Studies Courses

<table>
<thead>
<tr>
<th>Project Courses</th>
<th>Directed Studies Courses</th>
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<tbody>
<tr>
<td>BIOC4999 Biochemistry Project</td>
<td>BIOC3999 Directed Studies in Biochemistry</td>
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<tr>
<td>BIOL4991 Ecology &amp; Biodiversity Project</td>
<td>BIOL3991 Directed Studies in Ecology &amp; Biodiversity</td>
</tr>
<tr>
<td>BIOL4992 Food &amp; Nutritional Science Project</td>
<td>BIOL3992 Directed Studies in Food &amp; Nutritional Science</td>
</tr>
<tr>
<td>BIOL4993 Molecular Biology &amp; Biotechnology Project</td>
<td>BIOL3993 Directed Studies in Molecular Biology &amp; Biotechnology</td>
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<tr>
<td>BIOL4994 Biological Sciences Project</td>
<td>BIOL3994 Directed Studies in Biological Sciences</td>
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<tr>
<td>CHEM4999 Chemistry Project</td>
<td>CHEM3999 Directed Studies in Chemistry</td>
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<tr>
<td>EASC4999 Earth Sciences Project</td>
<td>EASC3999 Directed Studies in Earth Sciences</td>
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<tr>
<td>ENVS4999 Environmental Science Project</td>
<td>ENVS3999 Directed Studies in Environmental Science</td>
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<tr>
<td>MATH4999 Mathematics Project</td>
<td>MATH3999 Directed Studies in Mathematics</td>
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<tr>
<td>PHYS4999 Physics Project</td>
<td>PHYS3999 Directed Studies in Physics</td>
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<tr>
<td>STAT4798 Statistics and Actuarial Science Project</td>
<td>STAT3799 Directed Studies in Statistics</td>
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<td>STAT4799 Statistics Project</td>
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Undergraduate Research Opportunities: 
UG Research Colloquium for Science Students
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
Young Scientist Scheme (YSS)

Providing outstanding undergraduate students with ample early research experiences
Other Opportunities

- Career Success Programme
- Internships
- Overseas / Mainland Experiential Learning Funding from the Faculty of Science
- Science Student Ambassadors Scheme
- Student Societies
- Globalink Research Internship
- Entrepreneurship Seminar Series