Study in Europe!

Are you a second-year Chemical- or Chemical & Biological engineering student interested in studying in Denmark, the Netherlands or Switzerland in January 2019?

UBC’s Coordinated International Experience (CIE) is an initiative offering UBC Faculty of Applied Science students a chance to study abroad, full time for a semester at a leading CIE partner institution in Asia, Australia, or Europe. Entry into the CIE program is competitive. To be eligible, Chemical- and Chemical and Biological Engineering (CHBE) students must be available to go abroad during their third-year, second term, have at least a 70% average in the most recent academic term of full time studies prior to application (and maintain a 70% average prior to your exchange departure), and be a full-time student in good academic standing. Students accepted by a CIE partner institution are eligible to receive a $1,000 award for travel support from the Faculty of Applied Science.
## Coordinated International Experience Program - CHBE STUDENTS

The following partner institution courses in Europe have been pre-approved to transfer credits to UBC CHBE. For additional courses outside of this list, please contact CIE for approval.

### UBC Course
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Technical University of Denmark Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHBE 346</td>
<td>Thermodynamics (3)</td>
<td>28221 Chemical Engineering Thermodynamics</td>
</tr>
<tr>
<td>CHBE 366</td>
<td>Process &amp; Environmental Engineering Lab. (2)</td>
<td>28121 Chemical Unit Operations Laboratory</td>
</tr>
<tr>
<td>CHBE 381</td>
<td>Bioprocess Engineering I (3)</td>
<td>28345 Industrial BioReaction Engineering</td>
</tr>
<tr>
<td>CHBE 459</td>
<td>Chemical &amp; Biological Eng. Economics (3)</td>
<td>62618 Economics</td>
</tr>
<tr>
<td>CHBE Technical Elective (3)</td>
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</table>

### CHBE Technical Elective (2 ECTS = 1 UBC credit)
- 28221 Chemical Engineering Thermodynamics
- 28121 Chemical Unit Operations Laboratory
- 28345 Industrial BioReaction Engineering
- 62618 Economics
- 12136 Bioenergy Technologies
- 12701 Introduction to Living Systems
- 23302 Food Chemistry
- 25330 Applied Psycholgy
- 26317 Instrumental Chemical Analysis
- 28212 Polymer Chemistry
- 28415 Oil & Gas Production
- 28871 Production of Biofuels
- 28888 Technology & Economy in Oil & Gas Production
- 42430 Project Management
- 23522 Rheology of food and biological materials (*3wk Jan)
- 23532 Beer brewing and quality control (*3weeks in Jan)

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<tr>
<td>CHBE 381</td>
<td>Bioprocess Engineering I (3)</td>
</tr>
<tr>
<td>CHBE 485</td>
<td>Air Pollution Prevention &amp; Control (3)</td>
</tr>
<tr>
<td>CHBE Technical Electives</td>
<td>(select a group of courses and calculate equivalent credits using the formula: 2 ECTS = 1 UBC credit)</td>
</tr>
</tbody>
</table>

#### CHBE Technical Electives (2 ECTS = 1 UBC credit)
- BIO-315 Biomolecular structure and mechanics (4 ECTS)
- BIO-441 Nutrition from Molecules to Health (4 ECTS)
- BIOENG-442 Biomaterials (3 ECTS)
- BIOENG-449 Tissue Engineering (4 ECTS)
- ChE-304 Energy Systems Engineering (3 ECTS)
- ChE-320 Bioreactor Modelling and Simulation (3 ECTS)
- ChE-401 Equilibrium Stage Separation Processes (3 ECTS)
- ChE-404 Environmental Chemical & Biological Technology (3 ECTS)
- ChE-408 Ecofriendly Production & Process Intensification (3 ECTS)
- ChE-410 Catalysis for emission control and energy proc. (2 ECTS)
- ChE-437 Bioprocesses and downstream processing (4 ECTS)
- ENG-430 Risk Management (2 ECTS)
- ENG-431 Safety and Chemical Processes (2 ECTS)
- ENG-435 Chemistry of Food Processes (2 ECTS)
- ENG-436 Food Biotechnology (2 ECTS)

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<td>CHBE 356</td>
<td>Process Dynamics and Control (3)</td>
</tr>
<tr>
<td>CHBE Technical Elective (2 ECTS = 1 UBC credit)</td>
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</tr>
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</table>

### École polytechnique fédérale de Lausanne Course

#### approved course (2 ECTS)
- ENV 400 Air pollution and climate change

### ETH Zürich Course

#### approved course (2 ECTS)
- 529-0031-00L Chemical Process Control
- 529-0191-01L Renewable Energy Technologies II (4 ECTS)
- 529-0442-00L Physical Electrochemistry and Electrocatal. (6 ECTS)
- 529-0732-00L Proteins and Lipids (6 ECTS)

### Delft University of Technology Course

#### approved course (3 ECTS) + CH 3011 Interfacial Engineering
- WM0320TU Technology Policy and Management
- CH3991 (required) Research Project

#### approved course (2 ECTS)
- CH 3061 Multiphase Reactor Engineering (4 ECTS)
- CH 3531 Functional Ceramics (3 ECTS)
- CH 3562 Nanoparticle Technology (3 ECTS)

### Disclaimer
These course options are projected offerings based on information from the previous year and are provided as a starting point to plan your course selections. Enrolment in these courses will be subject to availability at the partner institutions, so please review the latest pre-requisites and timetable information when building a study plan.

### How to Apply

Apply online: [pdportal.apsc.ubc.ca](http://pdportal.apsc.ubc.ca)

Deadline for January 2019 CIE applications:
- **Thursday, January 18th, 2018 at 4:00pm** (First Round)
- **Friday, May 4th, 2018 at 4:00pm** (Second Round; limited availability)

### Contact

Coordinated International Experience Program
The University of British Columbia
1100-2332 Main Mall, Vancouver, BC, V6T 1Z4 Canada
Phone: 604.827.2002  Email: cie.apsc@ubc.ca
www.coop.apsc.ubc.ca/coordinated-international-experience

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