Information Session II: CHEM Options and Capstone
(For Student Cohort of 2016/17)

Date: Nov 16th, 2018
Chemistry Options
## Suggested Study Pathway

for B.Sc. in Chemistry *(with an Option)*

### Year 1

**Fall (12):**
- Gen. Chem. I (2)
- Gen. Chem. Lab I (1)
- Calculus I (3)
- Science (3)
- Eng. (3)

**Spring (16):**
- Gen. Chem. II (3)
- Gen. Chem. Lab II (1)
- Calculus II (3)
- Eng. (3)
- U core (3)
- Science (3)

### Year 2

**Fall (17):**
- Org. I (3)
- Org. Lab (1)
- Inorg. I (3)
- Inorg. Lab (1)
- Math (3)
- U core (3)
- Eng. (3)

**Spring (17):**
- Org. II (3)
- Inorg. II (3)
- Syn Lab (2)
- Computer (3)
- U. Core (6)

### Year 3

**Fall (17):**
- Fund. An. Chem. (3)
- P. Chem. I (3)
- An. Chem. Lab (1)
- P. Chem. Lab (1)
- Science (3)
- U core (6)

**Spring (15):**
- Inst. Analysis (3)
- P. Chem. II (3)
- MC Lab (2)
- Eng. (1)
- U core (3)
- Opt. Chem Elective (3)

### Year 4

**Fall (13):**
- Capstone (3)
- Eng (2)
- U core (3)
- Opt. Adv. Lab (1)
- Opt. Adv. Lab (1)
- Opt. Chem Elective (3)

**Spring (12):**
- U core (3)
- Opt. Chem Elective (3)

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**Total: 121 credits**
How to declare a CHEM Option?

- In Mid-August, 2019 (Course Registration Period for Fall-2019)
  You MUST submit Course Enrollment Requests via SIS for the corresponding Option Lab courses:
  - Pure CHEM Option: CHEM 4550 and 4555
  - Biomolecular Option: CHEM 4150 and 4155
  - Materials Option: CHEM 4250 and 4255
  - Env. & An. Option: CHEM 4350 and 4355
  - Depending on lab capacity, students might be selected based on their GPA ranking.
  - Successful enrollment into the lab courses means you are eligible to fulfill that Option.
  - For the other CHEM Elective courses, you need to register them by yourself (no instructor’s approval required).
  - A Preliminary survey will be conducted in the MC Lab in April for estimated enrollment figures.
Capstone Project
CHEM Capstone Courses

• ALL CHEM students (with/without Options) may choose:

  1) CHEM 4689* - Capstone Project

    OR

    2) CHEM 4691* - Capstone Research I

*Language Co-requisite course: new 3-credit LANG course
LANG 3022 is no longer coupled with CHEM 4689 or CHEM 4691. Most students will be pre-enrolled LANG 3022 in Year-3 Spring and some students could still take in Year-4 Fall Term if they will join exchange program in their Year-3 Spring.
CHEM 4689 – Capstone Project

• Offered in Fall and Spring only
• Instructor’s approval needed prior to course enrollment.
• Randomly assigned supervisor and enrollment semester.

• Course Requirements:
  (i) Library Workshops (research database, referencing, poster design, etc)
  (ii) Consultation Sessions
  (iii) Literature Review Report
  (iv) Oral Presentation
  (v) Poster Presentation
CHEM 4691 – Capstone Research I

• Offered in Fall, Spring, and Summer.
• Conducted in a Research lab under the guidance of a research faculty supervisor.
• Indicate your preferred choice(s) of research supervisors.

• **Course Requirements (tentative only):**

<table>
<thead>
<tr>
<th></th>
<th>Percentage</th>
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<tbody>
<tr>
<td>9 hrs per week</td>
<td></td>
</tr>
<tr>
<td>Lab Participation</td>
<td>(50%)</td>
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<tr>
<td>Research Thesis</td>
<td>(30%)</td>
</tr>
<tr>
<td>Oral Presentation</td>
<td>(20%)</td>
</tr>
</tbody>
</table>
Timeline for Declaration of Capstone Projects

Feb - March 2019:
If you plan to take CHEM 4691 – Capstone Research I:
- Browse Departmental Website for research areas of our faculties.
- Meet with target faculties to learn about their current research projects.
- Complete On-line Lab Safety Training and Exam from HSEO (details shown on next slides):
  - Go to HSEO website: http://www.ab.ust.hk/hseo/sub-menu/training.htm
    - MC03 – Chemical Safety II
    - MC07 – Chemical Safety I
Go to HSEO Website: [http://www.ab.ust.hk/hseo/sub-menu/training.htm](http://www.ab.ust.hk/hseo/sub-menu/training.htm)
Select and Complete Online Self-learning Courses [MC03] and [MC07]

Training Courses:

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Text</th>
<th>Narration</th>
<th>Content Format</th>
</tr>
</thead>
<tbody>
<tr>
<td>MC01 Radiation Safety for Unsealed Sources</td>
<td>Chinese</td>
<td>Putonghua</td>
<td>Text/Pictures (Powerpoint slides)</td>
</tr>
<tr>
<td>MC01 Radiation Safety for Unsealed Sources</td>
<td>English</td>
<td>English</td>
<td>Text/Pictures/Narration</td>
</tr>
<tr>
<td>MC02 Radiation Safety for Sealed Sources</td>
<td>English</td>
<td>No</td>
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</tr>
<tr>
<td>MC03 Chemical Safety II (Formerly &quot;Hazardous Waste Management&quot;)</td>
<td>English</td>
<td>English</td>
<td>Taped Presentation</td>
</tr>
<tr>
<td>MC04 Laser Safety - In Putonghua [Updated in July 09]</td>
<td>Chinese</td>
<td>Putonghua</td>
<td>Text/Pictures/Video/Narration</td>
</tr>
<tr>
<td>MC04 Laser Safety</td>
<td>English</td>
<td>English</td>
<td>Text/Pictures/Video/Narration</td>
</tr>
<tr>
<td>MC06 Biological Safety</td>
<td>English</td>
<td>English</td>
<td>Taped Presentation</td>
</tr>
<tr>
<td>MC07 Chemical Safety I - In Putonghua [Updated in July 09]</td>
<td>English</td>
<td>Putonghua</td>
<td>Taped Presentation</td>
</tr>
<tr>
<td>MC07 Chemical Safety I</td>
<td>English</td>
<td>English</td>
<td>Taped Presentation</td>
</tr>
<tr>
<td>MC09 Respiratory Protection</td>
<td>English</td>
<td>No</td>
<td>Text/Pictures</td>
</tr>
<tr>
<td>MC09 Respiratory Protection</td>
<td>Chinese</td>
<td>No</td>
<td>Text/Pictures</td>
</tr>
<tr>
<td>MC04 Electrical Safety</td>
<td>English</td>
<td>No</td>
<td>Text/Pictures/Video</td>
</tr>
<tr>
<td>MC04 Electrical Safety</td>
<td>Chinese</td>
<td>No</td>
<td>Text/Pictures/Video</td>
</tr>
<tr>
<td>DC14 Chemical Safety for NFF</td>
<td>English</td>
<td>English</td>
<td>Text/Pictures/Video/Narration</td>
</tr>
</tbody>
</table>

Notice: If you have completed one of the Self-Learning programs, you may click the button below to send a request to HSEO to arrange for an assessment.

Please Click Here to Send Request
Send Requests for Safety Exams. *Please write both safety exams on the same date!*

**Training Courses:**

[Click on the course name to select the course]

If you have problems or comments concerning the self-learning programs, please contact Ms. Doris Li at 7229 or email at communal@ust.hk

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Language</th>
<th>Narration</th>
<th>Content Format</th>
</tr>
</thead>
<tbody>
<tr>
<td>MC01</td>
<td>Radiation Safety for Unsealed Sources</td>
<td>English</td>
<td>English</td>
<td>Text/Pictures (Powerpoint slides)</td>
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<tr>
<td>MC02</td>
<td>Radiation Safety for Sealed Sources</td>
<td>English</td>
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<td>Text/Pictures (Powerpoint slides)</td>
</tr>
<tr>
<td>MC03</td>
<td>Chemical Safety II (Formerly &quot;Hazardous Waste Management&quot;)</td>
<td>English</td>
<td>English</td>
<td>Taped Presentation</td>
</tr>
<tr>
<td>MC04</td>
<td>Laser Safety - in Putonghua</td>
<td>Chinese</td>
<td>Putonghua</td>
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<td>MC05</td>
<td>Pressure Safety</td>
<td>English</td>
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<td>Text/Pictures/Video/Narration</td>
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<td>MC06</td>
<td>Biological Safety</td>
<td>English</td>
<td>English</td>
<td>Taped Presentation</td>
</tr>
<tr>
<td>MC07</td>
<td>Chemical Safety I (Updated in July 09)</td>
<td>English</td>
<td>Putonghua</td>
<td>Taped Presentation</td>
</tr>
<tr>
<td>MC08</td>
<td>Chemical Safety I - in Putonghua (Updated in July 09)</td>
<td>English</td>
<td>Putonghua</td>
<td>Taped Presentation</td>
</tr>
<tr>
<td>MC09</td>
<td>Respiratory Protection</td>
<td>English</td>
<td>No</td>
<td>Text/Pictures</td>
</tr>
<tr>
<td>MC09</td>
<td>Respiratory Protection</td>
<td>Chinese</td>
<td>No</td>
<td>Text/Pictures</td>
</tr>
<tr>
<td>DC04</td>
<td>Electrical Safety</td>
<td>English</td>
<td>No</td>
<td>Text/Pictures/Video</td>
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<tr>
<td>DC04</td>
<td>Electrical Safety</td>
<td>Chinese</td>
<td>No</td>
<td>Text/Pictures/Video</td>
</tr>
<tr>
<td>DC14</td>
<td>Chemical Safety for NFF</td>
<td>English</td>
<td>English</td>
<td>Text/Pictures/Video/Narration</td>
</tr>
</tbody>
</table>

**Notice:** If you have completed one of the Self-Learning programs, you may click the button below to send a request to HSEO to arrange for an assessment.
Send the two requests on the same day so that you will write both exams on the same date.

- Receive e-mail notification on exam time and venue (usually held every Friday morning)
- Complete Pre-class Assignment (see next) before the exam and submit to HSEO staff on the day of exam.
- Safety Certificates will be processed in 2-3 weeks. Receive e-mail notification for pick up from Ms. Amy Ho in Chem General Office (for enquiries, please approach Ms. Amy Ho by e-mail: chamyho@ust.hk).

You need to send TWO individual requests (one for [MC03] and one for [MC07])
IMPORTANT NOTE:

- **Pre-class Assignment must be completed before the exam, and submit it to HSEO staff on exam day.**
- **Download the assignment from Chemistry Departmental Website**
The Hong Kong University of Science and Technology
Health, Safety and Environment Office

This is to certify that

CHAN Tai Man

has successfully completed a course in

Chemical Safety I

on

2015/02/10

*attach photocopies of your safety certificates to your Capstone Selection Form*
The Hong Kong University of Science and Technology
Health, Safety and Environment Office

This is to certify that

CHAN Tai Man

has successfully completed a course in

Chemical Safety II

on

2015/02/26

[Signature]
Director of Health, Safety and Environment

*attach photocopies of your safety certificates to your Capstone Selection Form*
Timeline for Declaration of Capstone Projects

Feb - March 2019:

If you plan to take **CHEM 4691 – Capstone Research I**:

- Browse Departmental Website for research areas of our faculties.
- Meet with target faculties to learn about their current research projects.
- Complete **On-line Lab Safety Training and Exam from HSEO (details shown on next slides)**:
  - Go to HSEO website: [http://www.ab.ust.hk/hseo/sub-menu/training.htm](http://www.ab.ust.hk/hseo/sub-menu/training.htm)
    - **MC03 – Chemical Safety II**
    - **MC07 – Chemical Safety I**
  - Send Request to HSEO to arrange for safety exams. **Please write both exams on the same date.**
  - Complete the **Pre-Class Assignment** before exam and submit to HSEO staff on the exam date *(Pre-Class Assignment can be downloaded from the Chemistry Departmental Website)*.
  - Obtain your **HSEO Safety Certificates** from Ms. Amy Ho in the Chemistry General Office *(available in 2 – 3 weeks after exam and you will receive e-mail notification for pick-up. For enquiries, please approach Ms. Amy Ho by e-mail: chamyho@ust.hk)*
Timeline for Selection of Capstone Projects

Feb - March 2019: Lab Safety Courses and Exams (CHEM 4691 only)

April 19th: submission deadline for Capstone Declaration Form (see next).

- Download from Chemistry Departmental Website
- Put down 5 choices: CHEM 4691 with name(s) of research faculty, or CHEM 4689
- Important: For CHEM 4691 only, attach photocopies of your HSEO Safety Certificates
The Hong Kong University of Science and Technology
Department of Chemistry

Capstone Declaration Form for Students in the BSc. Chemistry Program [B4201]

This form is to be completed by ALL current Year 3 students in Academic Year 2017-18.

I. Student Particulars

<table>
<thead>
<tr>
<th>Student Name</th>
<th>HKUST Email</th>
<th>Student No.</th>
<th>Mobile Phone No.</th>
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To fulfill the Chemistry Capstone requirement, students of the 2015-16 cohort may choose from:

CHEM 4489: “Capstone Project” (offered in Fall and Spring terms only).

CHEM 4491: “Capstone Research” (conducted in Research Laboratory under the supervision of a research faculty member) (offered in Summer, Fall, and Spring terms).

Please list your top five choices of Capstone Courses and Supervisors in the table below:

IMPORTANT NOTES for CHEM 4491 only:

1. Each research faculty supervisor can only be ranked ONCE (i.e., can only appear once).
2. Please indicate your preferred enrollment term (if any) and provide a justification. We will try our best to accommodate your preference, but no guarantee.

<table>
<thead>
<tr>
<th>Choice</th>
<th>CHEM 4489 OR CHEM 4491</th>
<th>Research Faculty Supervisor’s Name (for CHEM 4491 only)</th>
<th>Preferred Enrollment Term (if any) for CHEM 4491 only</th>
<th>Justification for preferred term</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
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<td>5th</td>
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II. This section is to be completed by students opting for CHEM 4491 only.

Mandatory Chemical Safety Courses for Taking CHEM 4491 “Capstone Research”:

In compliance with University Safety Regulations, students who wish to choose CHEM 4491 “Capstone Research” MUST attend and pass in advance TWO Mandatory Online Safety Courses offered by the Health, Safety and Environment Office (HSEO). You are required to attach photocopies of your Safety Certificate(s) along with this Capstone Declaration Form before submission. For online safety courses and exam requests, please visit the following link: http://www.gso.ust.hk/hseo/sub-menu/training.htm. Detailed instructions can be obtained from the Information Session slides (Feb 2018) on our Chemistry Departmental Website.

The TWO Mandatory Safety Courses are:

(i) Chemical Safety I: Chemical Safety for Laboratory Users (MCDF).
(ii) Chemical Safety II: Hazardous Waste Management (MC03).

Important Note: A Pre-Class Assignment must be completed before the Safety Examination Day (available from Chemistry Departmental Website). You are strongly advised to write both exams on the same day.

Please indicate the examination dates of your Safety Exams below:

<table>
<thead>
<tr>
<th>Safety Course Code</th>
<th>Examination Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCDF</td>
<td></td>
</tr>
<tr>
<td>MC03</td>
<td></td>
</tr>
</tbody>
</table>

* HSEO will send Safety Course Certificates to the Department of Chemistry in 2 – 3 weeks after the examination date. You will receive an e-mail notification from Ms. Amy Ho of Chemistry Administration Office when your certificates are ready for pick-up. Please bring along this declaration form (your Examination Dates must be clearly shown) when you pick up your certificates. For inquiries, please approach Ms. Amy Ho of Chemistry Administration Office by email chamyho@ust.hk.

Please return the completed Capstone Declaration Form with photocopies of Safety Certificate(s) if choosing CHEM 4491 in person to Ms. Vera Tang of Chemistry Administration Office by Friday, 20 April 2018."
Timeline for Selection of Capstone Projects

Feb – March 2019: Safety Courses and Exam (for CHEM 4691 only)

April 19th: Deadline for Capstone Declaration Form

Late May: Announcement of Results

Depending on availability, the earliest term to enroll into CHEM 4691 is Summer 2019.

(Note: CHEM 4691 is offered in Summer, Fall & Spring
CHEM 4689 is offered in Fall & Spring only.)
Further Information

• Prof. Xuhui Huang, UG Coordinator
e-mail: xuhuihuang@ust.hk

• Prof. Wa-Hung Leung, Deputy UG coordinator
e-mail: chleung@ust.hk

• Ms. Vera Tang, Chemistry General Office (UG matters)
e-mail: chvera@ust.hk

• Ms. Amy Ho (Lab Safety Course and Certificate Enquiry)
e-mail: chamyho@ust.hk
Q&A