# Pre-major Faculty Advisor Handbook

## Office of Academic Advising and Support
## School of Science

**For Internal Use Only**

Disclaimer

The information in this publication is provided by School of Science,
Hong Kong University of Science and Technology.
The contents of this publication, including all figures, tables, and drawings,
are the intellectual property of the School of Science, HKUST.

Copyright ©2013
All rights reserved.

# Table of Content


## School of Science - Academic Advising

* What is Academic Advising P.1
* Who are We?
* Our Mission
* Academic Advising Model P.2
* Advising Timeline and Key Events P.4
* Advising Syllabus P.5

## Quick Fact

* Student Intake Profile P.5
* List of Majors and Graduation Requirement P.6
* Understanding University Common Core P.7
* University English Requirement P.8
* Overlap among Major Requirements & School Requirements & Common Core P.9

## Course Selection and Registration P.10

* Courses to be Taken in Fall Term
* Credit Distribution for Fall Term
* Credit Transfer Approval
* Add / Drop Approval

## University Policies and Regulations P.11

## Degree and Career P.12

* Major Descriptions and Highlights
* Career Prospects

## FAQ P.17

## Useful Resources and Links P.21

## Appendix P.22

I. List of Pre-major Faculty Advisors
II. Sample Pre-major Faculty Advisor's Appointment Email
III. Matching of Student DSE background and Major Pre-requisite Courses
IV. Undergraduate Employment Survey 2011
V. Recommended Pre-major Courses for IPO Majors

# Academic Advising

## What is it?

* Academic advising is a developmental process which assists students to clarify their life and career goals; as well as major and course choices.
* Effective academic advising is the key to promote student's learning and satisfaction, particularly during the early stage at University.

## Who are we?

* The School established the Office of Academic Advising and Support (理學院學務輔導辦公室) (hereafter refer to as the Advising Office) on August 1, 2011 to assist the students on choosing majors, course selection and requirements.
* Giving advice and support on possible double major, major-minor combination that suits students' interests, abilities and career aspirations.
* The main feature of the School's academic advising system is based upon one-to-one meetings throughout the student's first year.
* The Advising Office will work with faculty members from departments/division to provide students with academic advice and support.




*The Office of Academic Advising and Support at Room 1401 (Opposite to LT-B)*



*From left to right:*
*Micky Wong, Su Ngai, Prof.Pakwo Leung (Director)*
*Tina Ko, Yee Lai and Liza Mung*

## Our Missions:

* Guide students how to investigate and make decisions on majors and careers effectively
* Clarify educational and career goals
* Assist students in understanding the university context and environment
* Promote student growth and development
* Evaluate and monitor student progress

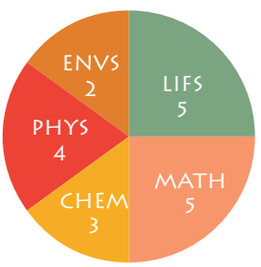
# Academic Advising Model

Students have different advising needs in different stages. We adopt a **Student-based Two-phase model** to better address their needs. The dividing point is the time when students are admitted to their majors.

## Phase 1. Before students are admitted to their majors:

Primary responsibility is in the Advising Office. Advising Office will provide a wider vision across different majors and schools to the students. Personnel in our academic advising structure will consist of:

1. Student Advising Officers
2. Peer Mentors
3. Pre-major Faculty Advisors




### Student Advising Officer

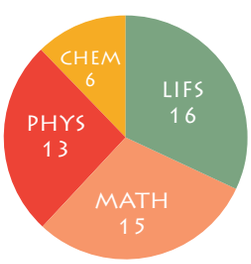
The advising office has a group of experienced advisors with expertise in understanding university policies and regulations, utilizing resources and working specifically with students. They will assist students in interpreting academic requirements and identifying other experiences that will enrich student's university life and learning.




**19** Pre-major Faculty Advisors

### Pre-major Faculty Advisor

They are trained faculty members from different departments/divisions who provide advice to students on major program and course selection, and information about graduation requirements, opportunities and services available to them.




**50** Peer Mentors

### Peer Mentor

The advising office also works with peer mentors in helping students adjust to the new environment in their first year. Students are assigned to a peer mentor who will assist them in navigating the campus as well as directing them to the appropriate academic or administrative departments for further assistance when needed.

516 Science Students (local/non-local)

**School Advising Officer** ALL science students

**Pre-major faculty advisor** : science students

1: ~27

**Peer Mentor** : science students

1: ~10

# Academic Advising Model(con't)

## Phase 2. After students are admitted to their majors:

Primary responsibility is in the individual department/division. Advising activities will mainly be distributed to their respective department/division which can provide more major-oriented advice. Personnel in our academic advising structure will consist of:

1. UG Major Coordinators
2. Academic Major Advisors
3. Faculty Mentors

Their working relation is illustrated in the following diagram:

**Academic Program Advisor**

Each department/division has a task force of Academic Program Advisors who oversee the academic request and progress of students in their major programs.

**Faculty Mentor**

Each student, after declaring his/her major, is assigned to a Faculty Mentor of his/her major department/division. Students can get both program specific information and advice on their educational goals from their Faculty Mentor. Faculty Mentors should meet regularly with their mentees.



**UG Program Coordinator**

# Advising Timeline and Key Events

## 20 Aug
**Program Registration Day**
1. Program Registration
2. **School Induction (Part I)**
   - Academic Advising Session
3. Health and Fitness Assessments



## 4 Sep
**School Induction (Part III)**
*(For local and non-local students)*
- Extra co-curricular activities
- MAGNET Peer Mentor Welcome Party



## 10-22 Sep
**Add/Drop Period**
Faculty Advising hour:
**2 hours per week**,
(Total **4** sessions, **30** mins for each session)



## Oct - Nov
**Major of the Week**
Department/Division-organized events where students can learn more about different majors



## 2012
**The Faculty Advisors/Student Advising Officers are available by appointment Monday to Friday during semesters.**

## 22 Aug
**School Induction (Part II)**
*(For local students)*
- Course Selection Induction
- Course Pre-registration Planning
- 10:30 -11:30 Meeting with your advisees
- 15:00 -16:00 Meeting with your advisees

## 5 Sep
**Course Registration Station**
Peer mentors will help new students with difficulties in using SIS

## 10 Sep
**Fall Term Commences**

## 22 Sep onward
Faculty Advising hour:
**1 hour per week**,
(Total **2** sessions, **30** mins for each session)

## 1 Mar -30 Apr
**First-round Major Declaration Period**

Major Declaration Procedure:

- Fulfill major pre-requisites requirements
- Submit Major Declaration Form by 30 Apr
- Attend interview if needed
- Results released in early July
  - Major declared → Student with major
  - No offer

**Major pre-requisite requirements**

**MATH/MAEC/ENVS/EVMT**
MATH 1013 & 1014 or
MATH1023 & 1024 or MATH 1020
**BCB/BIOT/BISC**
LIFS 1091 & 1902
**CHEM**
CHEM1010 or 1020 & CHEM 1030
**PHYS**
PHYS 1111 or 1112 & PHYS1114

**Maximum of 2 choices**

**Selection criteria:**
- Major pre-requisites requirements
- Academic performance at HKUST
- Interviews and other means of evaluation if necessary

## 1 Dec -30 Dec
**Second-round Major Declaration Period**





## 2013
**The Faculty Advisors/Student Advising Officers are available by appointment Monday to Friday during semesters.**

## mid-Jan
**Faculty Advisor Sharing Session**

## 1 Feb
**Spring Term Commences**

**Information as of 25 Feb 2013**

# Advising Syllabus

## Student Learning Outcomes:

- Independence
- Social and personal responsibility
- Major and Career choices
- Achievement of personal and educational goals

## Relationship Building (Ice Breaking):

- Know your students – Who are they? What do they want from you? What are they telling you?
- Listen carefully and respect student's questions, concerns, and problems
- Be open to ask and explore their problems because some of them may not even know what to ask

## Advisor's responsibilities:

- Assist undeclared and deciding students in exploration of major and career options
- Help students to make their own decisions and take responsibilities for their education
- Aid in developing realistic career goals
- Push students to THINK
- Have knowledge about university policies and regulations; as well as majors/minors requirements and procedures
- Introduce campus resources and make appropriate referrals
- Be on time for all appointments, return emails and phone calls in a timely manner
- Encourage students to experience diversities as early as possible

## Advisee's responsibilities:

- Be proactive to talk about self-interests, skills, and strengths in order to develop and clarify their own personal values and goals
- Be open and willing to consider recommendations from faculties, advisors, and peer mentors
- Learn and understanding university policies and procedures, departments and majors, as well as courses for major requirements and graduation requirements
- Keep contact information up to date and read all official correspondence
- Check email account daily, be on time and prepare for all advising appointments
- Be respectful of the advisor's time and call to cancel or reschedule an appointment

## DOs and DON'Ts:

**DO** provide support to Student Advising Officers on matters related to majors and courses

**DO** talk to the Student Advising Officers to discuss and review any concern arises during advising with students

**DO** provide consultation on majors and year one science coursesadvising with students

**DO** provide consultation on majors and year one science coursesadvising with students

**DO** oversee students' academic performances

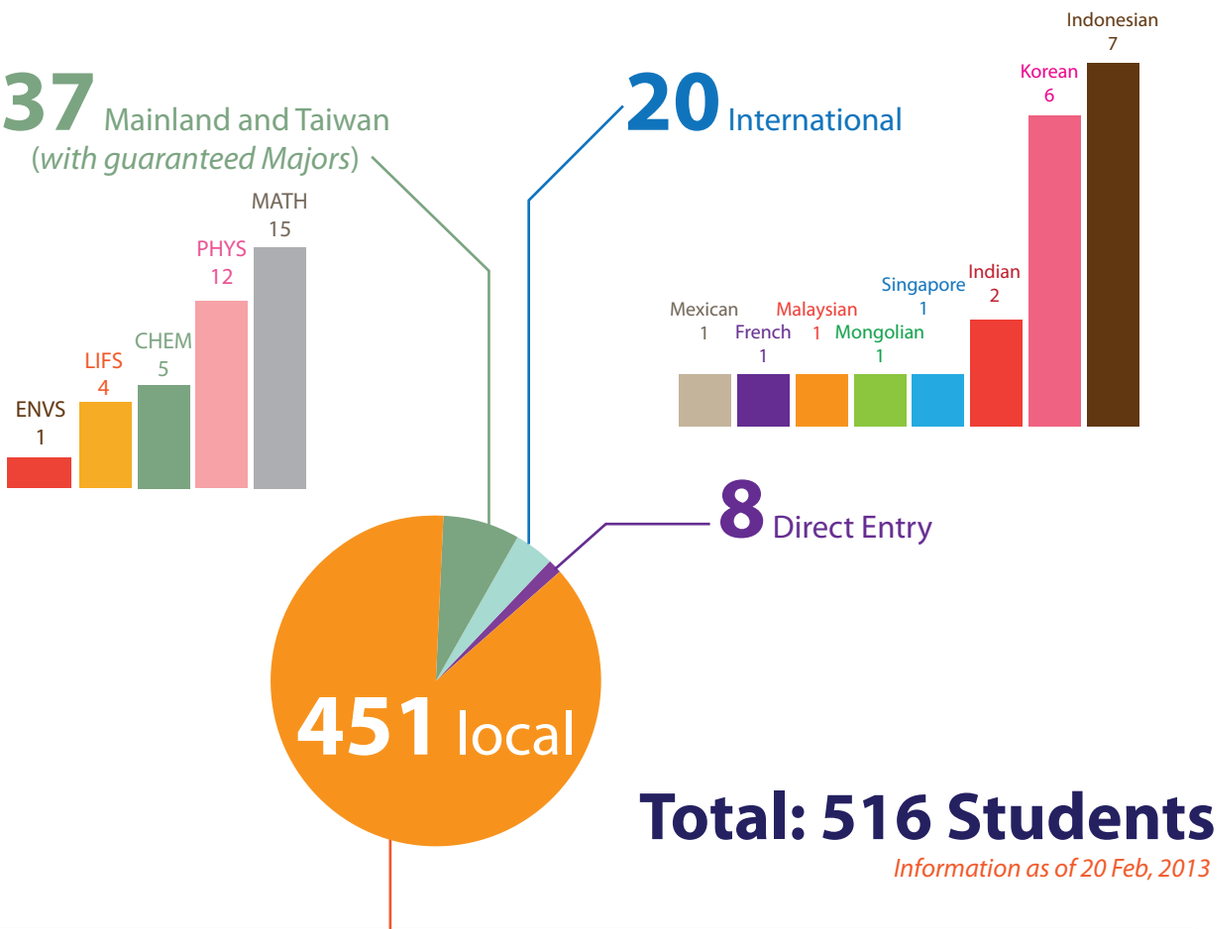
**DON'T** make decision for the students, guide them to think and make their own choice instead

**DON'T** provide any information that you are not sure about

**DON'T** give advice that only limited to your major and you should not be directly responsible for recruiting major students

# Quick Facts

## **Science** Students Intake 2012-13




**Total: 516 Students**

*Information as of 20 Feb, 2013*

Admission Scores (unweighted):

Highest Score: **38**

Mean Score: **26.5**

Lowest Score: **24**

Calculation of Admission Scores:
(Sum of the Best 6 Subjects)

1 English Language
2 Chinese Language
3 MATH (Compulosry Part)
4 Liberal Studies
5 Best of (Bio/Chem/Phys/CombinedSci)
6 Next Best Elective/M1/M2

| DSE Grade: | 1 | 2 | 3 | 4 | 5 | 5* | 5** |
|---|---|---|---|---|---|---|---|
| Admission Score: | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

# Quick Facts (Con't)

## 10 Majors + 1 Five-year Program

### Department of Chemistry

**1** Chemistry (CHEM)

- Biomolecular Chemistry Option
- Environmental and Analytical Chemistry Option
- Material Chemistry Option
- Pure Chemistry Option

### Division of Life Science

**2** Biochemistry and Cell Biology (BCB)

**3** Biological Science (BISC)

**4** Biotechnology (BIOT)

### Department of Physics

**5** Physics (PHYS)

- Applied Physics Option
- Physics and Mathematics Option
- Pure Physics Option

### Department of Mathematics

**6** Mathematics (MATH)

- Applied Mathematics Track
- Computer Science Track
- Mathematics and Physics Track
- Pure Mathematics (Advanced) Track
- Pure Mathematics Track
- Statistics and Financial Mathematics Track

**7** Mathematics and Economics (MAEC)

### School of Science

**8** Environmental Science (ENVS)

### Interdisciplinary Programs Office

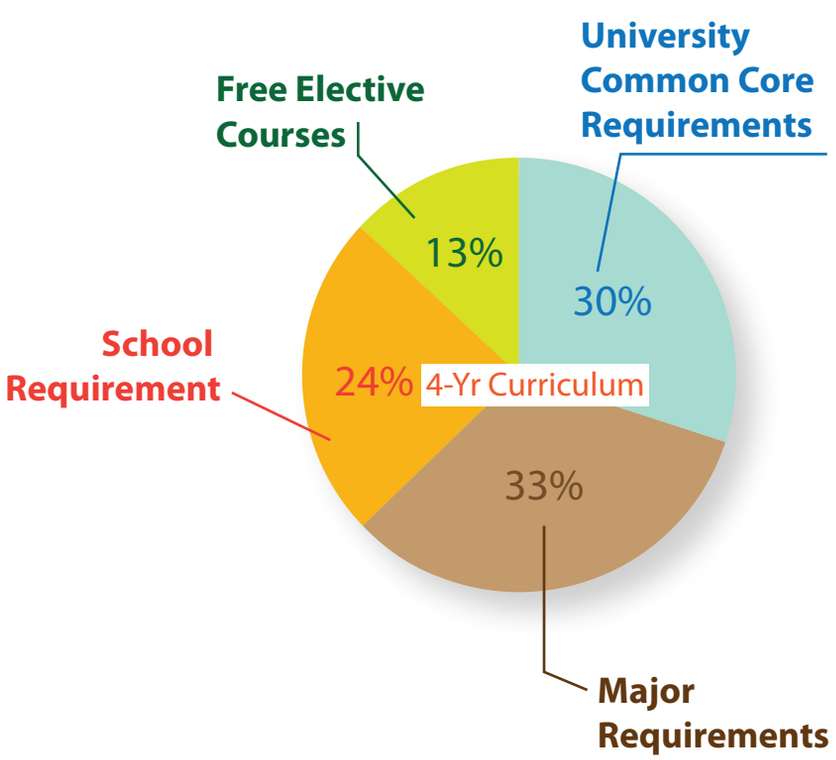
**9** Environmental Management and Technology (EVMT)

**10** Risk Management and Business Intelligence (RMBI)

**5-year program** Dual Degree Program in Technology and Management *(Please note that this is a 5-year program open for SSCI/SENG/SBM students)*

## Graduation Requirements

**The minimum credit requirements for graduation is 120.**



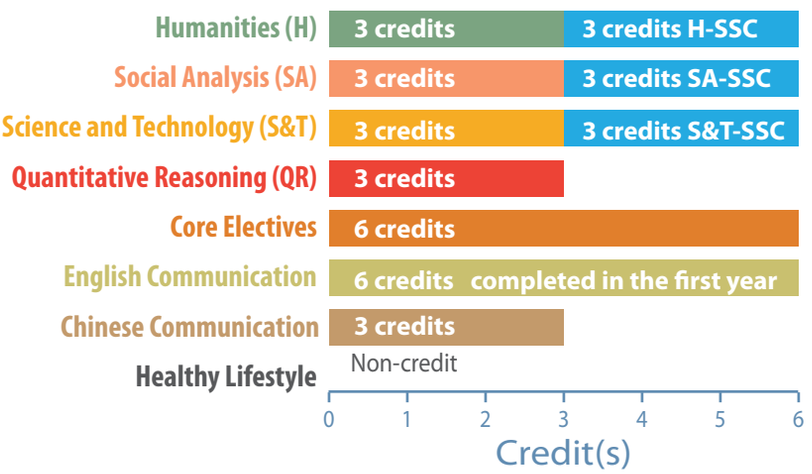
# Understanding University Common Core

* A broad-based education
* An all-round developmental experience

We wish our students to

* Learn outside their major discipline
* Learn to integrate different fields of knowledge
* Find their direction for a lifelong pursuit
* Acquire skills to realize their personal goals
* Challenge them to think
* Explore their role among their friends and in their family
* Explore their identity in the community and the society
* Contribute to the society and the world

## Total credits required: 36 credits




**School-sponsored courses (SSC):**

Intended to be hallmark courses of the offering Schools and be representative of the uniqueness and values of the Schools, plentiful resources have been earmarked and devoted to developing these courses.

## Notes for selecting common core courses

1 No HKUST prerequisite courses are required for students to take all common core courses

2 Some common core courses may be listed under more than one common core area. Students can choose to count towards **ONE** of the listed areas **BUT NOT BOTH**.

3 May **RE USE** common core credits to count toward other graduation requirement, subject to other restrictions as specified by the School/major program. (*SSCI: Students may reuse up to* **6 credits** *of courses to count towards both the* **School Requirements** *and* **the University Common Core requirements.**)

4 Only common core courses taken in the year when they are listed as such can be used to satisfy **the Common Core requirement.**

## Course lists (updated every year):

1 **For the 2012-13 intake,** there are **TWO separate common core course lists** for students studying the **3-year (3Y) and 4-year (4Y) programs.**

2 **As the Common Core course list may change from time to time,** students should check the course list (appropriate to their year of admission and program of study) before course registration to ensure that they are selecting current Common Core courses to satisfy the Common Core requirement.

The course list is maintained by UCE Team (Provost Office)
http://uce.ust.hk/course_information/index.html

# University Common Core (con't)

## When to enroll?

1. Check the common core course offering schedule
2. Find out from the **Normative Student Study Pathway** for the suggested terms to take common core courses.
3. Students are suggested to take School-Sponsored Courses (SSC) in **early terms. Please note that more Humanities School-Sponsored Courses will be available in the future, if students cannot find courses that fit their interest, they can take it in later terms.**

## Recommended pattern of taking common core course credits

**1st yr** 15 credits

**For Science Students:**

- **LANG 1002 and LANG 1003 (6 credits E-comm)**
- **MATH 1013/1023/1020**
  **(can be counted towards 3 credits QR)**

- **Students who take Science Foundation courses**
  **PHYS 1001 PHYS 1112 PHYS 1152**
  **PHYS 1111 PHYS 1151 CHEM 1004**
  **in their first year can count one of them toward 3 credits S&T**

- **You can suggest them to take S&T School Sponsered Courses (3 credits S&T SSC)**

| 2nd yr | 3rd yr | 4th yr |
|---|---|---|
| 9 credits | 6 credits | 6 credits |

# University English Requirement (12 Credits)

Under the regulations for the 4-year degree, all students are required to complete 12-credit University English Requirement. Details of the requirement and courses will be announced by the Language Center at http://lc.ust.hk

It includes

**6-credit** Common Core E-Comm
**3-credit** School Required English Course
**3-credit** English Course required by departments/ programs
(To be updated, please check http://lc.ust.hk)

## Major Pre-requisite/ Major Requirement

## School Requirement

## University Common Core Requirements

### ONE IT Courses

| | | |
|---|---|---|
| | COMP 1001 | Exploring Multimedia and Internet Computing |

**S&T**

| | |
|---|---|
| COMP 1001 | Exploring Multimedia and Internet Computing |

**QR**

| | |
|---|---|
| COMP 1021 | Introduction to Computer Science |
| COMP 1022P | Introduction to Computing with Java |
| COMP 1022Q | Introduction to Computing with Excel VA |

**MATH/MAEC/PHYS (Major Requirements)**

| | |
|---|---|
| COMP 1021 | Introduction to Computer Science |
| COMP 1022P | Introduction to Computing with Java |
| COMP 1022Q | Introduction to Computing with Excel VBA |

### ONE LANG Courses

| | |
|---|---|
| LANG 2010 | English for Science I |

### ONE Lab

| | |
|---|---|
| CHEM 1050 | Laboratory for General Chemistry I |
| CHEM 1055 | Laboratory for General Chemistry II |
| LIFS 1903 | Laboratory for General Biology I |
| LIFS 1904 | Laboratory for General Biology II |
| PHYS 1113 | Laboratory for General Physics I |
| PHYS 1115 | Laboratory for General Physics II |

### + Seven Lectures

**(at least 1 but no more than 3 form each discipline)**

**CHEM**

| | |
|---|---|
| CHEM 1004 | Chemistry in Everyday Life |
| CHEM 1010 | General Chemistry IA |
| CHEM 1020 | General Chemistry IB |
| CHEM 1030 | General Chemistry II |

**S&T**

| | |
|---|---|
| CHEM 1002 | Introduction to Chemistry of Cosmetics |
| CHEM 1004 | Chemistry in Everyday Life |

**MATH/MAEC/ENVS**

| | |
|---|---|
| MATH 1003 | Calculus and Linear Algebra |
| MATH 1013 | Calculus I |
| MATH 1014 | Calculus II |
| MATH 1020 | Accelerated Calculus |
| MATH 1023 | Honors Calculus I |
| MATH 1024 | Honors Calculus II |

**QR**

| | |
|---|---|
| MATH 1003 | Calculus and Linear Algebra |
| MATH 1013 | Calculus I |
| MATH 1020 | Accelerated Calculus |
| MATH 1023 | Honors Calculus I |
| MATH 1712 | Mathematics in Daily Life |
| MATH 1713 | Flattening the Earth: Maps and Map Projections |

**MATH/MAEC (Major Requirements)**

| | |
|---|---|
| MATH 2023 | Multivariable Calculus |
| MATH 2121 | Linear Algebra |

## Major Pre-requisites/ Major Requirement

## School Requirement

### BCB/BIOT/BISC/ENVS

| | |
|---|---|
| LIFS 1901 | General Biology I |
| LIFS 1902 | General Biology II |

### PHYS

| | |
|---|---|
| PHYS 1001 | Physics and the Modern Society |
| PHYS 1111 | General Physics I |
| PHYS 1112 | General Physics I with Calculus |
| PHYS 1114 | General Physics II |
| PHYS 1151 | Intermediate General Physics I |
| PHYS 1152 | Intermediate General Physics I with Calculus |
| PHYS 1154 | Intermediate General Physics II |

### BCB/BIOT/BISC/ENVS (Major Requirement)

| | |
|---|---|
| LIFS 1030 | Environmental Science |

## University Common Core Requirements

### S&T

| | |
|---|---|
| LIFS 1010 | Appreciation of Biological Sciences |
| LIFS 1020 | Biology of Human Health |
| LIFS 1050 | Biochemistry of Life |
| LIFS 1070 | Impact of Biotechnology on Daily Life |
| LIFS 1080 | Disease, Culture and Technology |
| LIFS 1090 | Food and Medicine |
| PHYS 1001 | Physics and the Modern Society |
| PHYS 1111 | General Physics I |
| PHYS 1112 | General Physics I with Calculus |
| PHYS 1151 | Intermediate General Physics I |
| PHYS 1152 | Intermediate General Physics I with Calculus |
| PHYS 1004 | How Scientists Think |
| PHYS 1005 | Physics in Movies |
| PHYS 1002 | Introduction to Astrophysics and Astronomy |
| PHYS 1006 | Elementary Astronomy |
| SCIE 1050 | Gastronomy |

## S&T School-Sponsored Courses

| | |
|---|---|
| LIFS 1030 | Environmental Science |
| PHYS 1003 | Energy and Related Environmental Issues |
| SCIE 1110 | Great Ideas in Science |
| SCIE 1120 | Chemistry and Life |
| SCIE 2000 | Space, Time and Motion |
| CIVL 1160 | Civil Engineering and Modern Society |
| ELEC 1010 | Electronic and Information Technology |
| ENGG 1110 | Engineering Solutions to Grand Challenges of the 21st Century |
| ENGG 1130 | The Impact and Value of Technology Innovation |
| ENGG 1150 | Information Technology Revolution: Past, Present and Future |

# Course Selection and Registration

## Course Registration

During the first year 2012-13, all science students are required to take

| | *Pre-enrolled courses:* | | | | | TOTAL |
|---|---|---|---|---|---|---|
| **Courses to be taken in Fall Term 12-13** | 1 *MATH course (MATH 1013 Calculus I)* + 1 *LANG 1002* + 2 *Courses from the 3 science disciplines (PHYS, CHEM, and LIFS) according to student's preferred Major* + 1 *Lab course (If any)* | | | | + 1 *Common Core Course* | **6** *Courses* |
| **Credit Distribution in Fall Term** | **3** *Credits* | **3** *Credits* | **6** *Credits* | **3** *Credits* | **3** *Credits* | **16** *Credits* |

## Credit Load

In each regular term, students within their normal duration of study and in good academic standing must register for courses to a total of **16 credits on average,** but **at least 12 credits** and **no more than 18 credits**

## Credit Overload Approval

First Term

In principle, faculty should **REJECT** all the request of credit overloading in the First Term. If you have questions, please contact the Advising Office.

Second Term

| | |
|---|---|
| CGA < 2.85 | No Overload |
| CGA >= 2.85 | Max 19 Credits |
| CGA >=3.5 | Max 22 Credits |

Approval for more than 22 credits should **NOT** be granted except in very exceptional cases, and should not be encouraged even for very good students.

## Credit Transfer Approval

All credit transfer request will be sent to the Advising Office for approval

| | |
|---|---|
| **Apply for Credit Transfer** | Students can obtain the Credit Transfer Request Form from the Advising office and return the completed form to the Advising Office **no later than one month of the first regular term** of study at HKUST. |

## Add/Drop Approval

Students cannot drop any pre-requisite science courses. They can only **swap** between courses. Please note that if no other pre-requisite courses are available, then they cannot drop the course.

If students want to swap between science courses, make sure they check the quota for the Laboratory course that matches with the science lecture course he/she want to add.

No approval is needed for Common Core courses (students can do it on SIS by themseleves)

*Please remind students to send add/drop request **BY 5pm on the last day of add/drop period**. Last minute request will NOT be entertained.

# Course Selection and Registration Con't

## Math Course student should take in Fall Term

All science students are pre-enrolled to **Math 1013**.

### If students find it too difficult

They can take **MATH 1003**.

**BUT** you should warn them that MATH 1003 is the minimum material in single variable calculus. If they want to study advanced math courses or major in MATH/MAEC/IPO, they have to take MATH 1020 Accelerated Calculus after taking MATH 1003. Unless students want to major in LIFS that no further advanced math courses are requried, you should not suggest your advisees to take MATH 1003

### If students find it too easy

Upon Instructor's approval, students can **TRY**

**MATH 1020** if students have **5*** or above in **DSE M2**

**MATH 1023** if students have **5*** in **DSE Math compulsory part** AND **5 or above M2**

## Description of different Single Variable Calculus Courses

**Math1013/1014:** Complete single variable calculus at normal level. Students are expected to know the basic concepts and carry out the computations.

**Math1023/1024:** Complete single variable calculus at more advanced level. Students are expected to understand the basic concepts and make simple theoretical arguments (such as providing reason for the specific computation, quite a bit of proofs). This is an honor course of Math1013/1014.

(Student with level 5* or above in standard Math and 5 or above in M2 are encouraged to try out these honor classes)

**Math1020:** Advance material in single variable calculus. Expected students have learnt well in calculus before (M2 with 5* or above). The course contains advance material so that students who passed Math1020 can continue studying the other higher level math courses.

**Math1003:** Minimum material in single variable calculus. The course provides the basic knowledge of calculus but not enough for further study in more advanced math courses.

# University Policies and Regulations

* Please be reminded that if you notice any students who have CGA of 1.5 or below, we recommend you to contact the students and see if there is any study difficulty or anything that we could offer help for them.

## Registration for Additional Majors

The new regulations explicitly allow for students to take additional majors. This replaces the existing arrangement for students to graduate with a dual-major designation. With the approval of the relevant Major-program Coordinators, students may complete the requirements for more than one major. Students who wish an additional major to be recorded on their transcript, must register in the major no later than the last day of the Add/Drop period in the first regular term of their final year of study.

## SGA / CGA / TGA / GGA

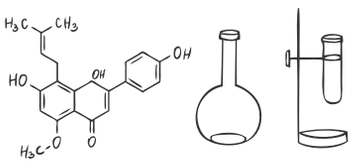
* The Senate has approved using students' Cumulative Grade Average (CGA) to assess academic progress, rather than the Semester Grade Average (SGA) with effect from May 2011.
* Under the old regulations, students were allowed to exclude some course grades from the calculation of their GGA if these courses were not required for graduation and if their department approved. The new regulations allow this for all students, but limit the number of surplus courses to be excluded from the GGA to a total of 9 credits.
* To classify awards, GGAs not CGAs are used. In calculating a GGA, courses taken in the first year of study are half-weighted. No change has been made in the way that GGAs are calculated.

| ***Category of Academic Regulations*** | ***4-Point System*** |
|---|---|
| Academic Probation | CGA < 1.5 |
| Dean's List | TGA ≧ 3.7* |
| Academic Achievement Medal | Final CGA ≧ 3.9 |
| First Class Honors | GGA 3.500 - 4.300 |
| Second Class Honors Division One | GGA 2.850 - 3.499 |
| Second Class Honors Division Two | GGA 2.150 - 2.849 |
| Third Class Honors | GGA 1.500 - 2.149 |

* Under the old regulations, students were informed of academic dismissal and were able to appeal to the Office of the Provost. Under the new regulations, students are given an opportunity for review by their School and will be asked by the School to provide any additional information about their situation that would explain their poor performance. Schools will then make a recommendation to the Provost.

# Degree and Career

## Chemistry



Students will study all aspects of chemistry and related disciplines; general areas covered include analytical chemistry, inorganic chemistry, organic chemistry, and physical chemistry. Specialized areas include environmental chemistry, medicinal chemistry, biological chemistry, polymer chemistry, and materials chemistry including nanostructures, advanced instrumentation, advanced computational and theoretical chemistry.

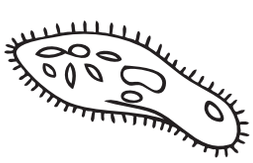
### Career Prospects:

Chemistry graduates will have opportunities of working in the area of chemical science, education and technology, chemistry related business, commodity markets, or further study in graduate research. Since studying in chemistry would train up student's analytical thinking and some generic skills, the variety of job opportunities are flexible.

### Highlight:

In order to declare an option in chemistry, student needs to take three chemistry elective courses and two laboratory courses that are related to the specific option.

## Life Science
## Biochemistry & Cell Biology



Students will study how biomolecules work together in both simple experimental systems (Biochemistry) and also within cells (Cell Biology), the fundamental building blocks of all living organisms. The early curriculum is broad-based and provides students with a strong foundation in fundamental concepts and principles of Biochemistry and Cell Biology. This will enable students to explore and develop their own interests in various aspects of molecular life science, via taking more advanced and specialized electives as they progress through the major. BCB students will also have the option of significant practical training and research opportunities in the latter part of their studies.

### Career Prospects:

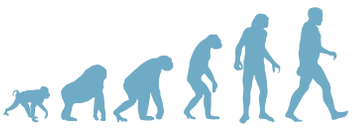
BCB graduates will have a broad range of career options, being well prepared for graduate research training and future employment opportunities in academic, medical or biotechnology related research. However, BCB graduates will also be well placed to pursue more vocational scientific careers in research or in private/government sectors requiring a life science background, including healthcare, biotechnology and education. Life science is in truly exciting times, with recent advances in technology and societal expectations driving an expansion in training and employment opportunities. BCB graduates will be very well placed to benefit.

### Highlight:

The objective of the BCB major is for graduates to have a sound factual, conceptual and practical competence in molecular life science and to be prepared, should they so wish, for research training. However Molecular Life Science can also readily be studied at multiple levels and thus can accommodate a wide range of student aptitude and motivation. By taking the required year one classes, it should be relatively easy for students without high school biology background to enter and prosper in the BCB major.

# Degree and Career Con't

## Life Science
### Biological Science



This flexible major aims to provide students, regardless of previous background, with a general coverage and a basic understanding of major principles, concepts and technologies of modern biology; including animal, plant, evolutionary and environmental biology. The major offers minimal training in basic laboratory techniques but practical laboratory experience is available on the basis of elective courses. The flexibility of this major enables students to undertake an additional major or a major with minor(s) via elective courses offered by other academic departments such as Social Sciences, Humanities and Business Studies.

### Career Prospects:

The emphasis of this major is the broadness study of general biological knowledge and background, which providing students with comprehensive training in transferable skills and opportunities in independent learning required for all varieties of potential career. More than 50% of our Biological Science graduates, who armed with strong skills in acquisition of scientific enquiry and critical thinking, are engaging in jobs of interdisciplinary in nature. Moreover, students will have better problem solving skills and analytical skills throughout science training. Therefore, they will have a broad range of career options.

## Life Science
### Biotechnology



This major focused on basic and advanced biotechnological elements that lead to production, modification and adaptation of life. It provides students with theoretical and practical knowledge of the latest biotechnological developments. The curriculum components require basic understanding of concepts across various biological spectra including cell biology, molecular biology, microbiology and genetics. Step-by-step procedures in construction of recombinant DNA will be exploited practically with potential applications in mind. It is more focus on the applied aspects of life science.

### Career Prospects:

The major equips students with wide biotechnological background to meet the foreseeable demand in the markets of pharmaceutical, agricultural and business. The underlying objective of the major is to cater for the growing demand of biotechnologists in the fields of education, herbal medicine, agriculture, and health industry. Career opportunities are amply available in both the government as well as private sectors.

### Highlight:

The objective of studying life science subjects is to train student's abstract thinking, in which any outcome is always based on evidence to proof their functions and reactions in life. The requirement of mathematics is relatively low when comparing with other science majors. The mentality is different because students would use certain formula to solve a problem in mathematics but in life science, student would need to use laboratory experiment to proof the outcome instead. Therefore, student who is taking life science major will need to take some certain courses of chemistry but only the basic course of mathematics is required.

# Degree and Career Con't

## PHYSICS



Everything from the tiniest elementary particle to the ultimate fate of the universe, and provides the foundation for all of modern science and engineering. As a physics student, they will have the opportunity to learn about exciting topics ranging from quantum computing and nanotechnology to quarks, black holes and superconductivity.

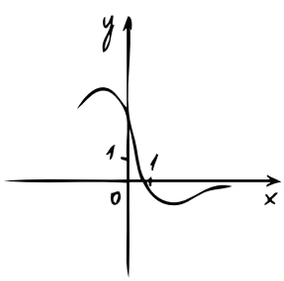
### Career Prospects:

Student could pursue further study or work in the fields of teaching, research, technical sales, forensic science, medical industry (Physicist) commerce, banking… etc. Since students are trained with good analytical skills and problem solving skills, the variety of job opportunities are quite flexible. Career opportunities are amply available in both the government as well as private sectors.

### Highlight:

Students might interest in this major if they are eager to find out the underlying physical law that governs how things behave or they always have question like why things happen.

## MATH




There are six tracks under Mathematics major:

- Applied Mathematics Tracks
- Computer Science Track
- Mathematics and Physics Tracks
- Pure Mathematics Tracks
- Pure Mathematics (Advance) Tracks
- Statistics and Financial Mathematics Tracks

### Career Prospects:

Pursue further study, teaching or being an analyst in the field of Consultancy Company, Government and non-government organization, financial company… etc..

# Degree and Career Con't

## MATH
## Mathematics and Economics

This major is jointly offered by Department of Mathematics and Department of Economics of HKUST. Roughly half of the required courses in this curriculum are mathematics courses, and the other half are economics courses.



### Career Prospects:

Career prospects are similar to those MATH graduates, in which they can pursue further study, teaching or being an analyst in the field of Consultancy Company, government and non-government organization, financial company… etc.

## Environmental Science



Environmental science is related to everyone's daily life because the environment is an integrated system that encompasses the physical component (air, land, and water), biological component (living organisms and their interactions), human populations, as well as the inter-relationships among these components. The major intends to provide students with a solid training in relevant areas with a special focus in eco-systems.

### Career Prospects:

Throughout the ENVS major, students would be better equipped for working in government agencies (Agriculture, Fisheries and Conservation Department, Environmental Protection Department), environmental consultancies (environmental impact assessments, natural resource management), environmental related NGOs, public education (teachers, conservation groups, ecotourism), and research.

### Hightlight:

Do you know how environmental science could be related to the economy?

The tradeoff for economic growth is always causing environmental disturbance. In order to minimize the disturbance and loss, environmental impact assessment is taken place to regulate the balance. Carbon trading is one of the commodities trading that allow individuals, companies or nations to participate in trading carbon emission. Therefore, there is wide variety of jobs available in the sector.

# Degree and Career Con't

## IPO
## Environmental Management and Techology

Student will learn the knowledge and the skills to engage environmental problems in business, government or non-governmental settings. The practical component gets student working on real world problems with our corporate partners, staying abreast of current issues and practicing students' skills with real problems. In addition to global issues, the major also addresses environmental problems relevant to Asia, Mainland China and Hong Kong.



### Career Prospects:

Career prospects are similar to those MATH graduates, in which they can pursue further study, teaching or being an analyst in the field of Consultancy Company, government and non-government organization, financial company… etc.

## IPO
## Risk Management and Business Intelligence



The major focuses on how risk management and business intelligence forms a vital part of a company's strategic planning and decision making. In order to assess and minimize risk effectively, students will also learn how to analyze and manage the ever-growing volume of business data. In order to make use of business intelligence as part of the company strategies, students will learn how to analyze and predict the business trends and opportunities from the data and learn the BI technologies for information collection and business performance monitoring.

### Career Prospects:

Students could end up working in regional and global banks, insurance companies and asset management firms to large industrial corporations and multinationals, securities regulators and universities, among others. Graduates are well prepared for positions such as risk analyst, quantitative analyst, credit analyst, business-planning analyst, actuarial and insurance consultant, and data-mining consultant… etc.

# FAQs

## Questions on Major

1. What is the difference among three majors in Life Science?
- Biochemistry and Cell Biology (BCB)
- Biological Science (BISC)
- Biotechnology (BIOT)

In general, BISC covers the basic knowledge and background of life science which provides broader view that student can choose to have more electives to study in their interested areas. BCB is a research oriented major that focuses and specializes on research training. Students will be advised to take BCB if they want to pursue further study in life science. BIOT is a small major that focuses on the applied aspects of life science. The general background is similar to the foundation of BCB but focuses more on the application side in agriculture, herbal medicine, biomedicine, and health industry.

2. Is Biomolecular Chemistry Option under the department of chemistry related to Biochemistry and Cell Biology under the division of life science? What is the difference between them?

Both subjects are very broadly related in so far as they deal with the function and properties of biomolecules. However studies of biomolecules can occur at multiple levels, reflecting quite distinct disciplines and this applies here. For example, one of the chemistry electives such as Structural Elucidation of Organic compounds teaches students how to deduce the structure of compounds by using spectroscopy.
The Biomolecular Chemistry Option is more Chemistry oriented, whereas the BCB major emphasizes more on the Biological aspects. Accordingly students in the Biomolecular Chemistry Option will not need to take life science courses to graduate, whereas BCB students are required to take a significant number of courses in chemistry.

3. What is the difference between Mathematics (MATH) and Mathematics & Economics (MAEC)?

MATH concentrates mainly on mathematics and it has six different tracks to fit students' interests, whereas MAEC is jointly offered by Department of Mathematics and Department of Economics. This major includes both mathematics and economics; student will not be mainly focus on mathematics.

4. What are the business elements in MAEC? Do I need to have strong business background in order to take this major?

Students are not required to have economic or business background to take MAEC but this major requires students to take minimum 8 economic courses.

5. How difference is Pure Mathematics (Advanced) Track and Pure Mathematics Track? What kind of academic performance I need to obtain in order to take the advanced track?

The advance track requires four honor courses. It is designed for students who want to pursue further study after graduation. If students are interested in study in Advance Track, it is highly recommended to take Math1023 and Math1024 in their first year of study. There is no written academic performance requirement for the Advance Track but student needs to get approval from the program director in order to enroll in the Advance Track.

# FAQs

6. What is option and track? What are the differences between them?

Options enable students to deepen their engagement with an area of the major discipline through completion of additional courses and other learning activities. Options in a major are optional. Students in the major can graduate without taking any option. Approved options are recorded on students' academic transcripts but not the graduation certificate.

Some majors, such as Mathematics, may include tracks to govern students' major requirements and choices of electives. Students in these majors MUST choose a track to focus on; such area of focus should also be recorded on students' transcripts but not the graduation certificate. (Please notice that we are still waiting CSU's approval to put track on transcript)

7. Can I change to other tracks or options if I find difficulties on the one I have chosen?

YES but students need to get approval from program directors or UG coordinators.

8. What are the differences between Environmental Science (ENVS) & Environmental Management and Technology (EVMT)?

ENVS focuses more on science and engineering. In order to know how the eco-system works and how it affects the ecology and the whole world, students are taught to have strong fundamental knowledge.

EVMT emphasizes more on the management and policy. Essential and fundamental knowledge on environmental science and technology will be covered in this major; students will be able to link up latest scientific and technological advances on environmental issues in relation to business operations and sustainability development, and apply environmental science on business management.

9. How to get into IPO? Is it hard to get in?

Student can apply IPO major and any major in School of Science at the same time. Faculties will not only consider student's CGA but also their presentation skill and their interest in the major. It depends on the overall academic performance of the student. There will be interview for shortlisted candidates.

10. Can I take double majors? How can I do that?

Yes, but you have to enroll in one major first. More information on declaring a second major will be provided later.

11. Can I do minor? What is the requirement?

Yes. Students should check the academic calendar for available minors and their requirements. Credits earned in fulfilling a minor requirements can be double-counted with other graduation requirements.

# FAQs

12. Can I change major after I have submitted the major declaration form?

After submission of major declaration form, changes is still acceptable as long as it is BEFORE the application deadline. Otherwise, student has to wait until the result is out and if they really want to change the major afterward, they will have to accept the offer and apply major transfer after the second round of major declaration.

## Questions on Career

1. What is the career path and job opportunity of taking science major?

Please see Chapter of Career and Degree.

2. What are the perspectives after graduating from environmental science?

Since people are getting more concerned about the importance of environmental protection, environmental science is playing a more important role in both the society and the economy because it has aroused the public awareness. There are always pros and cons for environmental disturbance and economic growth. We need to take the balance between economic growths and minimize the environmental disturbance and loss at the same time. Therefore, ENVT and ENVS will have certain demand in the near future.

3. Is my job opportunity the same if I take different options under Chemistry?

The flexibility is quite large because studying chemistry could train student's analytical mind and thinking; as well as their generic skill could be applied to many jobs and positions in many fields. Different options under Chemistry can facilitate students to find job related to their corresponding options.

4. Is my job opportunity the same if I take different tracks under Mathematics?

Applied Mathematics Tracks – Work in the field of consultancy company, environmental science, observatory department, or any field that require calculation
Computer Science Track – System analyst or programmer
Mathematics and Physics Track – Analyst related to the physics field
Pure Mathematics Track and (Advance) Track – Research
Statistics and Financial Mathematics Track – Data Analyst

5. Is my job opportunity the same if I take different options under Physics?

Applied Physics Option – Jobs related to engineering or industry
Physics and Mathematics Option – Jobs like analysts because student will have more training on calculation
Pure Physics Option – Designed for students who want to have further study

# FAQs

## General Questions from Faculty Advisors

1. If the advisee comes to me who is not my assigned one, what should I do?

Advisor should learn about the reason why the student is not seeking advice from his/her assigned advisor. If it is about major or course related problem that the student wants to get professional advice from you, you should provide help if you are available. However, student will need their own advisor to approve the credit overload request and endorse the major declaration form for them; therefore, you should ask the student to talk to their own advisor after meeting with you. If the problem is not related to your profession or you think that the workload is too much for you, please refer the student to the Office of Academic Advising and Support. Student Advising Officer will provide further help for the student.

2. Where can I refer students for help?

Please see chapter of Useful Resources and Links.

3. How does a student transfer credits from other institutions?

Transfer of credits may be granted to students in recognition of studies completed elsewhere than HKUST at an appropriate level as recognized by the University. Transfer of credit can be of two types: course-credit transfer, where a transferred course is equivalent to a specific course in the HKUST course catalog, or credit-only transfer, where only credits are transferred. Transfer credits granted will not be included in the calculation of grade averages, unless prior arrangements have been made. Students wishing to transfer credits should contact their UG coordinator if they are already enrolled in a major. If not, they should contact any student advising officer.

4. 16 credits in one semester seem light compared to the 3Y curriculum. Why shouldn't we let student to take one more course?

Note that the credit requirement of the 4Y curriculum (120) is NOT proportionally increased from the 3Y curriculum (100). That means by design students are expected to take a light credit load so that they have more time to spend on co-curricular activities.

# Useful Resources and Links

If students have questions of:

- Orientation Series
- Difficulties in adapting University Life

* *GO TO First Year Success: http://fys.ust.hk*

If students have questions of:

- 4Y curriculum
- Major requirement
- Major declaration
- MAGNET
- Making appointment with advisors

* *GO TO Office of Academic Advising and Support:*
*http://advise.science.ust.hk*
*Temporary Office Address: Room LG5209*
*Email: advise@ust.hk*

If students have questions of:

- Counseling
- Career Advising
- Art and Culture
- Scholarship
- Sport Facilities
- Residential Hall
- HLTH 1010 Course
- Redbird
- Connect (Social Service)

* *GO TO Student Affairs Office:*
*http://sao.ust.hk*
*Office Address: Room 5015 (Lift 3)*
*Email: sao@ust.hk*

If students have questions of:

- Exchange
- Internship
- Social Service
- Communication Tutor
- Other co-curriculum activities

* *GO TO Science for Success:*
*http://sci.success.ust.hk*
*http://facebook.com/ssci.hkust*

# Appendix I

# List of Pre-Major Faculty Advisor

| | | |
|---|---|---|
| Prof Kenny K. CHUNG | Division of Life Science | bckchung@ust.hk |
| Prof Pingbo HUANG | Division of Life Science | bohuangp@ust.hk |
| Prof Robert KO | Division of Life Science | bcrko@ust.hk |
| Prof Hongbin LIU | Division of Life Science | liuhb@ust.hk |
| Prof Robert Z. QI | Division of Life Science | qirz@ust.hk |
| Prof Wan Simon CHAN | Department of Chemistry | chanwan@ust.hk |
| Prof Guocheng JIA | Department of Chemistry | chjiag@ust.hk |
| Prof Lam Lung YEUNG | Department of Chemistry | chyeungl@ust.hk |
| Dr Wing Lung LEE | Department of Mathematics | malung@ust.hk |
| Prof Shing Yu LEUNG | Department of Mathematics | masyleung@ust.hk |
| Prof Shi Qing LING | Department of Mathematics | maling@ust.hk |
| Prof Min YAN | Department of Mathematics | mamyan@ust.hk |
| Dr Chi Wai YU | Department of Mathematics | macwyu@ust.hk |
| Prof Tian Wen CHEN | Department of Physics | twchen@ust.hk |
| Prof Vic LAW | Department of Physics | phlaw@ust.hk |
| Prof Wing Yim TAM | Department of Physics | phtam@ust.hk |
| Prof Kam Sing WONG | Department of Physics | phkswong@ust.hk |

**ENVS Major**

| | | |
|---|---|---|
| Prof Hongbin Liu | LIFS/faculty advisor | liuhb@ust.hk |
| Prof Stanley Lau | LIFS/faculty advisor | scklau@ust.hk |
| Dr. Ice Ko | LIFS/faculty advisor | iceko@ust.hk |

**Faculty advisors of IPO Programs**

**Dual Degree Program in Technology and Management**
Faculty Advisor: Prof CD Shum (email: jointm@ust.hk)

**Risk Management and Business Intelligence Program (RMBI)**
Faculty Advisor: Dr. Adela Lau (email: joinrmbi@ust.hk)

**Environmental Management and Technology Program (EVMT)**
Faculty Advisor: Dr. Michelle Lin (email: joinevmt@ust.hk)

# Appendix II

## BSc in Environmental Science

**No Biology**
**HKDSE 1/2x Biology**

LIFS 1901 General Biology I
⇩
LIFS 1902 General Biology II

**HKDSE 1x Biology**

LIFS 1902 General Biology II
(Offering in Spring Term 2013)

**OR**

MATH 1013 Calculus I ⇩ MATH 1014 Calculus II

OR

MATH 1023 Honors Calculus I
(With Level 5 or above in M2)
⇩
MATH 1024 Honors Calculus II

OR

MATH 1020 Accelerated Calculus
(With Level 5*/ 5** in M2)

---

## BSc in Biochemistry and Cell Biology
## BSc in Biological Science
## BSc in Biotechnology

**No Biology**
**HKDSE 1/2x Biology**

LIFS 1901 General Biology I
⇩
LIFS 1902 General Biology II

**HKDSE 1x Biology**

LIFS 1902 General Biology II
(Offering in Spring Term 2013)

---

## BSc in Mathematics
## BSc in Mathematics and Economics

MATH 1013 Calculus I ⇩ MATH 1014 Calculus II

OR

MATH 1023 Honors Calculus I
(With Level 5 or above in M2)
⇩
MATH 1024 Honors Calculus II

OR

MATH 1020 Accelerated Calculus
(With Level 5*/ 5** in M2)

---

## BSc in Chemistry

**No Chemistry**

*CHEM 1004 Chemistry in Everyday Life
⇩
CHEM 1020 General Chemistry IB
⇩
CHEM 1030 General Chemistry II

**HKDSE 1/2x Chemistry**

CHEM 1010 General Chemistry IA
⇩
CHEM 1030 General Chemistry II

**HKDSE 1x Chemistry**

CHEM 1020 General Chemistry IB
⇩
CHEM 1030 General Chemistry II

---

## BSc in Physics

**No Physics**

*PHYS 1001
Physics and the Modern Society
⇩
PHYS 1111 General Physics I
⇩
PHYS 1114 General Physics II

**No Physics**
**1. With M1/M2, or**
**2. Have taken MATH 1013**

*PHYS 1001
Physics and the Modern Society
⇩
PHYS 1112 General Physics I with Calculus
⇩
PHYS 1114 General Physics II

**HKDSE 1/2x or 1x Physics**

PHYS 1111 General Physics I
⇩
PHYS 1114 General Physics II

**HKDSE 1/2x or 1x Physics**
**1. With M1/M2, or**
**2. Have taken MATH 1013/ MATH1003**

PHYS 1112 General Physics I with Calculus
⇩
PHYS 1114 General Physics II

---

* These courses are NOT major pre-requisite courses.

# Appendix III

# Sample Pre-major Faculty's appointment email

Dear Prof. QI, Robert Zhong,

Student has made an appointment with you! Please refer to the following details:

Student Name: Mr. Student, Test2

Date: 10 Jul 2012

Time: 11:30 to 12:00

Venue: Office of Academic Advising and Support - Room 1404 (Lift 25/26)

Area of Concern:

Course Enrollment

To access the student profile, you can log in
https://advise.science.ust.hk/student_profile/detail.asp?99999998

Please feel free to contact the student for any special arrangement (e.g. change of venue/time). Thank you for your kind attention!

Regards,

Office of Academic Advising and Support
School of Science
Tel: (852) 2358 6086
Email: advise@ust.hk

# Appendix IV

# STATISTICAL SUMMARY

### Undergraduate Employment Survey 2011

### GES 2011 (UG) - School of Science

| | 2011 | | 2010 | | Change |
|---|---|---|---|---|---|
| ***Response Rate*** | | | | | |
| Number of graduates | 468 | | 445 | | N.A. |
| Number of respondents | 372 | | 323 | | N.A. |
| Response rate | 79.5% | | 72.6% | | +6.9% pt. |
| | | | | | |
| ***Employment Status*** | | | | | |
| Full-time employed | 249 | (66.9%) | 215 | (66.6%) | +0.3% pt. |
| Further studies | 89 | (23.9%) | 69 | (21.3%) | +2.6% pt. |
| Self-employed | 7 | (1.9%) | 2 | (0.6%) | +1.3% pt. |
| Temporarily employed | 7 | (1.9%) | 6 | (1.9%) | Unchanged |
| Part-time employed | 17 | (4.6%) | 16 | (5.0%) | -0.4% pt. |
| Not seeking employment | 3 | (0.8%) | 3 | (0.9%) | -0.1% pt. |
| Still Seeking Employment | 0 | (0.0%) | 12 | (3.7%) | -3.7% pt. |
| Others (e.g., emigrated or returned to homeland) | 0 | (0.0%) | 0 | (0.0%) | Unchanged |
| | | | | | |
| ***Employment Sector*** | | | | | |
| Commerce and Business | 103 | (44.4%) | 99 | (46.7%) | -2.3% pt. |
| Education | 69 | (29.7%) | 53 | (25.0%) | +4.7% pt. |
| Engineering and Industry | 41 | (17.7%) | 43 | (20.3%) | -2.6% pt. |
| Community & Social Services | 10 | (4.3%) | 10 | (4.7%) | -0.4% pt. |
| Government and Related Organizations | 9 | (3.9%) | 7 | (3.3%) | +0.6% pt. |
| | | | | | |
| ***Main Job Nature*** | | | | | |
| Teaching/Lecturing | 64 | (25.1%) | 32 | (14.7%) | +10.4% pt. |
| Marketing/Sales | 47 | (18.4%) | 40 | (18.4%) | Unchanged |
| Administration/Management | 39 | (15.3%) | 24 | (11.1%) | +4.2% pt. |
| Scientific/Research Work | 26 | (10.2%) | 45 | (20.8%) | -10.6%pt. |
| | | | | | |
| ***Gross Monthly Income*** | | | | | |
| Mean | $12,855 | | $10,514 | | +22.3% |
| Median | $11,204 | | $10,000 | | +12.0% |

Remark: "% pt." means "percentage point".

## GES 2011 (UG) – Interdisciplinary Programs Office (IPO)

| | 2011 | | 2010 | | Change |
|---|---|---|---|---|---|
| ***Response Rate*** | | | | | |
| Number of graduates | 26 | | 25 | | N.A. |
| Number of respondents | 25 | | 22 | | N.A. |
| Response rate | 96.2% | | 88.0% | | +8.2% pt. |
| | | | | | |
| ***Employment Status*** | | | | | |
| Full-time employed | 23 | (92.0%) | 21 | (95.5%) | -3.5% pt. |
| Further studies | 2 | (8.0%) | 1 | (4.5%) | +3.5% pt. |
| Self-employed | 0 | (0.0%) | 0 | (0.0%) | Unchanged |
| Temporarily employed | 0 | (0.0%) | 0 | (0.0%) | Unchanged |
| Part-time employed | 0 | (0.0%) | 0 | (0.0%) | Unchanged |
| Not seeking employment | 0 | (0.0%) | 0 | (0.0%) | Unchanged |
| Still Seeking Employment | 0 | (0.0%) | 0 | (0.0%) | Unchanged |
| Others (e.g., emigrated or returned to homeland) | 0 | (0.0%) | 0 | (0.0%) | Unchanged |
| | | | | | |
| ***Employment Sector*** | | | | | |
| Commerce and Business | 19 | (82.6%) | 15 | (78.9%) | +3.7% pt. |
| Engineering and Industry | 3 | (13.0%) | 2 | (10.5%) | +2.5% pt. |
| Government and Related Organizations | 1 | (4.4%) | 1 | (5.3%) | -0.9% pt. |
| Community & Social Services | 0 | (0.0%) | 0 | (0.0%) | Unchanged |
| Education | 0 | (0.0%) | 1 | (5.3%) | -5.3% pt. |
| | | | | | |
| ***Main Job Nature*** | | | | | |
| Administration/Management | 13 | (56.5%) | 3 | (14.3%) | +42.2% pt. |
| Engineering | 6 | (26.0%) | 6 | (28.6%) | -2.6% pt. |
| System Analysis & Computer Programming | 2 | (8.7%) | 7 | (33.3%) | -24.6%pt. |
| Accounting/Auditing/Taxation | 1 | (4.4%) | 1 | (4.8%) | -0.4% pt. |
| Marketing/Sales | 1 | (4.4%) | 0 | (0.0%) | +4.4% pt. |
| | | | | | |
| ***Gross Monthly Income*** | | | | | |
| Mean | $25,193 | | $19,271 | | +30.7% |
| Median | $19,500 | | $18,000 | | +8.3% |

Remark: "% pt." means "percentage point".

## Relevance of Study to Present Job

| Program | Respondents | Relevance of Study to Present Job | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Very Irrelevant | | Irrelevant | | Neutral | | Relevant | | Very Relevant | |
| | | No. | % | No. | % | No. | % | No. | % | No. | % |
| ***Interdisciplinary Programs Office*** | | | | | | | | | | | |
| BEng&BBA in Chemical and Bioproduct Engineering and General Business Management | 2 | 0 | 0.0% | 0 | 0.0% | 2 | 100.0% | 0 | 0.0% | 0 | 0.0% |
| BEng&BBA in Chemical Engineering and General Business Management | 2 | 0 | 0.0% | 0 | 0.0% | 1 | 50.0% | 0 | 0.0% | 1 | 50.0% |
| BEng&BBA in Civil and Structural Engineering and General Business Management | 4 | 0 | 0.0% | 1 | 25.0% | 2 | 50.0% | 1 | 25.0% | 0 | 0.0% |
| BEng&BBA in Computer Engineering and General Business Management | 3 | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 3 | 100.0% | 0 | 0.0% |
| BEng&BBA in Electronic Engineering and General Business Management | 5 | 0 | 0.0% | 0 | 0.0% | 2 | 40.0% | 2 | 40.0% | 1 | 20.0% |
| BEng&BBA in Logistics Management and Engineering and General Business Management | 4 | 0 | 0.0% | 0 | 0.0% | 1 | 25.0% | 3 | 75.0% | 0 | 0.0% |
| **Sub-total** | **20** | **0** | 0.0% | **1** | 5.0% | **8** | 40.0% | **9** | 45.0% | **2** | 10.0% |
| ***School of Science*** | | | | | | | | | | | |
| BSc (Applied Physics) | 7 | 1 | 14.3% | 2 | 28.6% | 1 | 14.3% | 3 | 42.8% | 0 | 0.0% |
| BSc (Biochemistry) | 30 | 9 | 30.0% | 3 | 10.0% | 7 | 23.3% | 6 | 20.0% | 5 | 16.7% |
| BSc (Biochemistry and Science Education) | 1 | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 1 | 100.0% | 0 | 0.0% |
| BSc (Biology) | 35 | 4 | 11.4% | 10 | 28.6% | 8 | 22.9% | 7 | 20.0% | 6 | 17.1% |
| BSc (Biology and Science Education) | 1 | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 1 | 100.0% |
| BSc (Chemistry) | 23 | 1 | 4.3% | 6 | 26.1% | 8 | 34.8% | 4 | 17.4% | 4 | 17.4% |
| BSc (Mathematics) | 53 | 6 | 11.3% | 13 | 24.5% | 18 | 34.0% | 13 | 24.5% | 3 | 5.7% |
| BSc (Mathematics and Economics) | 2 | 1 | 50.0% | 0 | 0.0% | 1 | 50.0% | 0 | 0.0% | 0 | 0.0% |
| BSc in Mathematics (Mathematics and IT Education) | 7 | 0 | 0.0% | 0 | 0.0% | 1 | 14.3% | 5 | 71.4% | 1 | 14.3% |
| BSc (Molecular Biomedical Sciences) | 2 | 1 | 50.0% | 1 | 50.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| BSc (Physics) | 21 | 2 | 9.5% | 4 | 19.0% | 10 | 47.7% | 4 | 19.0% | 1 | 4.8% |
| BSc (Physics and Science Education) | 1 | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 1 | 100.0% |
| **Sub-total** | **183** | **25** | **13.7%** | **39** | **21.3%** | **54** | **29.5%** | **43** | **23.5%** | **22** | **12.0%** |
| **Total** | **1046** | **57** | **5.4%** | **111** | **10.6%** | **290** | **27.7%** | **442** | **42.3%** | **146** | **14.0%** |

# Appendix V

**INTERDISCIPLINARY PROGRAMS OFFICE**
**THE HONG KONG UNIVERSITY OF SCIENCE AND TECHNOLOGY**

## Recommended Pre-major Courses for First-Year 4Y Students

4Y students interested in declaring RMBI, EVMT or DDP as their major are recommended to take the following courses in the first year of study:

| Interdis-ciplinary Program | Recommended Pre-major Courses for first-year 4Y students |
|---|---|
| RMBI | **Students from SENG:**<br>• (MATH 1013 and MATH 1014) or (MATH 1023 and MATH 1024)<br>• COMP 1021 or COMP 1022P or COMP 1022Q<br><br>**Students from SBM:**<br>• MATH 1003 or MATH 1013 or MATH 1023<br>• ACCT 2010<br><br>**Students from SSCI:**<br>• (MATH 1013 and MATH 1014) or (MATH 1023 and MATH 1024) or MATH 1020<br>• COMP 1021 or COMP 1022P or COMP 1022Q |
| EVMT | **Students from SENG:**<br>• (MATH 1013 and MATH 1014) or (MATH 1023 and MATH 1024)<br>• PHYS 1001 or PHYS 1112 or PHYS1152 or CHEM 1010 or CHEM 1020 or any ENVR course<br><br>**Students from SBM:**<br>• MATH 1003 or MATH 1013 or MATH 1023<br>• ISOM 2500<br>• ECON 2103 or ECON 2113 or any ENVR course<br><br>**Students from SSCI:**<br>• (MATH 1013 and MATH 1014) or (MATH 1023 and MATH 1024) or MATH 1020<br>• One of the Science Foundation Courses from LIFS or CHEM or PHYS, or any ENVR course |
| DDP | **Students from SENG:**<br>• (MATH 1013 and MATH 1014) or (MATH 1023 and MATH 1024)<br>• PHYS 1001 or PHYS 1112 or PHYS1152 or CHEM 1010 or CHEM 1020<br><br>**Students from SBM:**<br>• MATH 1003 or MATH 1013 or MATH 1023<br>• ISOM 2500<br>• ECON 2103 or ECON 2113<br><br>**Students from SSCI:**<br>• (MATH 1013 and MATH 1014) or (MATH 1023 and MATH 1024) or MATH 1020<br>• PHYS 1111 or PHYS 1112 or PHYS 1151 or PHYS 1152 or CHEM 1010 or CHEM 1020 |

**Office address:**
Room 1401-1403 (Lift 25/26)
Academic Building, HKUST
**Website:** http://advise.science.ust.hk
**Tel:** 2358 6086
**Email:** advise@ust.hk