

TOWN HALL MEETING Make BME Great Together

http://www.bme.cuhk.edu.hk/new/files/undergraduatestd/ TownHallMeeting24Nov2020.pdf

(BME Website => Students => Undergraduate Students => Town Hall Meeting)

Prof. Raymond Tong
24 November 2020



http://www.bme.cuhk.edu.hk



CUHK Biomedical Engineering



BMEDEPT



CUHK Biomedical Engineering



Regular Town Hall Meeting

OTown Hall meeting will be held <u>every semester</u> to ensure a good communication channel with all students in BME

Before this Town Hall Meeting, Prof. Raymond Tong has an online meeting with the Class Representatives (Year 2-4) and some of the students on 14 Oct 2020.

1. BMEG Elective Course List 2020-21 Term 2: No. of Enrollment > 12

Course Code	Course Title
BMEG3102	Bioinformatics
BMEG3140	Molecular and Cellular Engineeting Laboratory
BMEG3330	Neuroengineering
BMEG3440	Global Engineering Medical Innovation
BMEG4520	Cardiovascular Engineering
BMEG4530	Musculoskeletal Tissue Engineering

Teaching timetable of 2020-21 Term 2 in CUSIS:

http://www.res.cuhk.edu.hk/en-gb/undergraduate-students/announcements-notices-mass-mailing/1785-teaching-timetable-of-2nd-term-2020-21

2. Difficulties in learning Matlab (BMEG3320)

- Our Department has organized a 4-hours general fundamental
 Matlab training on 7 Nov 2020 (Sat) via zoom, 10:00am 12:00nn &
 2:00pm 4:00pm (around 100 participants)
- Students' feedback passed to Prof. Blu (the course coordinator of BMEG3320)

3. Summer Practical Training

- tentatively scheduled to start on 17 May until 25 June 2021
- Please be alerted of our email and the announcement posted on Blackboard

4. BME Mentorship Scheme

schedule to be started on January 2021

UG Student Representatives in 2020-21:

Year	Name	Sex	Email
Year 1	WAI Hei Long Jess	М	1155155942@link.cuhk.edu.hk
Year 1	MAN Cho Hin Enoch	М	hinman1000@gmail.com
Year 2	CHOW Hiu Lok	F	1155143801@link.cuhk.edu.hk
Year 2	WONG Hoi Lam Karina	F	1155142847@link.cuhk.edu.hk
Year 3	LI Tsz Ching Sharon	F	1155120860@link.cuhk.edu.hk
Year 3	CHAN Chi Chung Francis	М	1155126345@link.cuhk.edu.hk
Year 4	CHEN Chun Hin Jack	М	1155110598@link.cuhk.edu.hk
Year 4	LAU Yat Yan Brian	М	1155110706@link.cuhk.edu.hk

Agenda

- Programme Outcome & HKIE Required Outcomes
- Department's General Office & Computer Lab
- 3. Summer internship and work-study
- 4. Stream Preference and Declaration

PROGRAMME OUTCOME & HKIE REQUIRED OUTCOMES (1)

Progr	Programme Outcome					
PO 1	an ability to master the required knowledge of mathematics, science, and engineering and apply them appropriately to the BME discipline in general and/or to a specialized BME area					
PO 2	an ability to design and conduct experiments, collect data on humans and other biological specimens, and to analyze and interpret data to address health-related issues					
PO 3	an ability to design a system, component or process to meet desired needs within realistic constraints, and to develop innovative technologies to serve the healthcare needs of society					
PO 4	an ability to identify, formulate and solve engineering problems critically					
PO 5	an ability to use the techniques, skills, and modern engineering tools necessary for BME practice					
PO 6	an ability to use the computer/IT tools relevant to the BME discipline along with an understanding of their processes and limitations					
PO 7	an ability to communicate effectively					
PO 8	an ability to demonstrate leadership, to manage projects, and to function on multi-disciplinary teams					
PO 9	an ability to understand professional and ethical responsibility, and the impact of engineering solutions in a global and social context, especially the importance of health, safety and environmental considerations to both workers and the general public					
PO 10	a readiness to engage in lifelong learning to stay abreast of contemporary issues, and a capacity to acquire new knowledge and skills across disciplinary boundaries					

PROGRAMME OUTCOME & HKIE REQUIRED OUTCOMES (2)

Matching between the Programme Outcomes and the HKIE Required Outcomes

HKIE's Graduate Attributes	BME Programme Outcomes
a) an ability to apply knowledge of mathematics, science, and engineering appropriate to the degree discipline	PO1
b) an ability to design and conduct experiments as well as to analyze and interpret data	PO2
c) an ability to design a system, component or process to meet desired needs within realistic constraints, such as economic, environmental, social, political, ethical, health & safety, manufacturability & sustainability	PO3
d) an ability to function on multi-disciplinary teams	PO8
e) an ability to identify, formulate and solve engineering problems	PO4
f) an ability to understand professional and ethical responsibility	PO9
g) an ability to communicate effectively	PO7
h) an ability to understand the impact of engineering solutions in a global and social context, especially the importance of health, safety and environmental considerations to both workers and the general public	PO9
i) an ability to stay abreast of contemporary issues	PO10
j) an ability to recognize the need for, and to engage in lifelong learning	PO10
k) an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice appropriate to the degree discipline	PO5
1) an ability to use the computer/IT tools relevant to the discipline along with an understanding of their processes and limitations	PO6 8

PROGRAMME OUTCOME & HKIE REQUIRED OUTCOMES (3)

Matching between the Programme Outcomes and the HKIE Required Outcomes Example:

Programme Outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
	Apply knowledge of math, science & engineering to BME	Experiment on humans & biological specimens, analyze & interpret data	Innovate a system, part or process to meet desired needs within constraints	Identify, formulate, & solve engineering problems critically	Use techniques, skills, & modern engineering tools for BME practice	Use IT tools relevant to BME with an understanding of their limitation	Communicate effectively	Lead, manage projects, & function on multidisciplinary teams	Understand ethics, global, societal & professional responsibilities	Learn new knowledge & skills across disciplines & continuously
HKIE Graduate Attributes	А	В	С	E	K	L	G	D	F, H	۱٬۱
REQUIRED COURSES										
BMEG2001 Intro to BME	√	✓	✓	✓	✓					
BMEG2011 BME Lab & Hospital Experience	✓	✓	✓	✓	✓	✓	✓	✓		9

BME Department's General Office ERB1120

Office Hours

Monday – Thursday 8:45am – 1:00pm

2:00pm - 5:30pm

Friday 8:45am – 1:00pm

2:00pm – 5:45pm

** Saturday, Sunday & Public Holiday is closed.



BME Department's Computer Lab ERB1122

- 24-hour opened for BME students ONLY
- Please use your CU Link Card to access the computer lab (use main door ONLY)
- O Please use O365 account to login the computer
- Please DO NOT attempt to repair any computer or change the settings. Report all problems related to the system/software/computer to our technician Nelson (email: ptso@cuhk.edu.hk; tel: 3943 8291)
- Please follow all the "Rules and Regulation" posted on the whiteboard of the computer lab

** Due to COVID-19
pandemic, the computer lab
is temporarily **NOT** opened to
students until further notice **

BME Department's Computer Lab ERB1122

Printing service is provided for BME students:

- 1. HK\$0.2 per sheet with white/black printing (A4)
- 2. HK\$2 per sheet with colour printing (A4)
- 3. \$40 free quota per year per student, maximum accumulate to \$80 for each student.

** Due to COVID-19 pandemic, the computer lab is temporarily <u>NOT</u> opened to students until further notice **



Summer Internship

- 1. Overseas Research Internship
- 2. Local Internship
 - Government, Hospitals, Companies
 - Faculty Undergraduate Summer Research Internship
 - BME Undergraduate Research Internship (year-long)

Overseas Research Internship

BME Overseas Summer Research Internship

- √ application deadline has been passed, we have received 26 application (Year 2: 4; Year 3: 17; Year 4: 5)
- ✓ interview arrangement is in progress (*shortlisted students will be invited for interview, please be alerted of our email by this week)
- Columbia University, USA
- University of Pennsylvania
- Michigan State University
- Mayo Clinic (Rochester)
- Technika University of Gdansk, Poland

- University of Waterloo, Canada
- University of New South Wales,
 Sydney, Australia
- Chang Gung University, Taiwan
- Sichuan University, China

Interview by the BME Panel : 23-30 November 2020
Matching and Nomination to the Hosts : 1-7 December 2020
Interview and Decision by the Hosts : 8-15 December 2020
Official Notification of Acceptance : 30 December 2020

Local Internship

- Government, Hospitals, Companies

Placement & Internship Programme via CINTEC

https://pip.cintec.cuhk.edu.hk/web/

Placement and Intership Programme

Centre for Innovation and Technology Faculty of Engineering. The Chinese University of Hong Kong



Placement and Internship Programme (PIP)

PIP offers a direct communication channel between our engineering students and their potential employers. Centre for Innovation and Technology coordinates the opportunities of 1-year work study, summer internship, graduate employment, part-time job as well as recruitment talk, career seminar etc. in engineering field, which are collectively managed under the student Placement and Internship Programme (PIP).

PIP is dedicated for engineering students only, employers who want to reach non-engineering students, please contact Office of Student Affairs.

EMPLOYERS

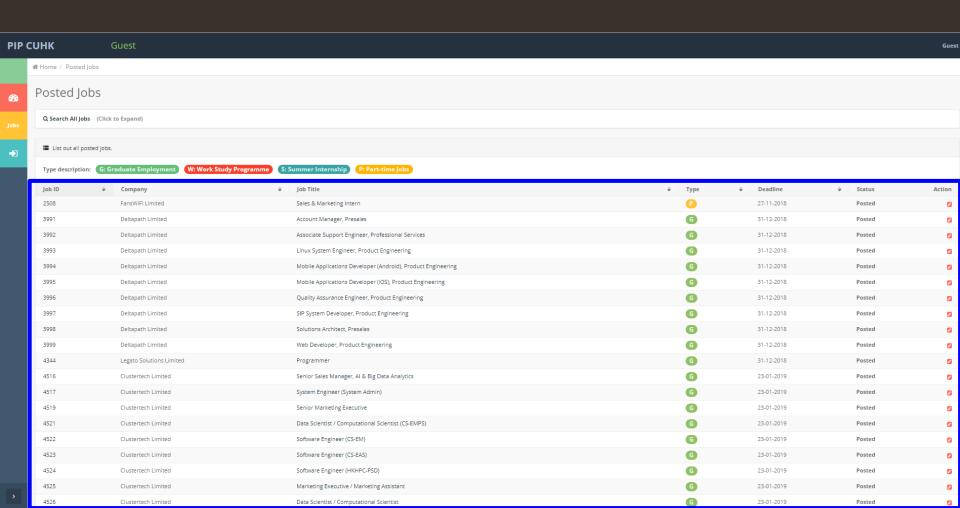
STUDENTS

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Placement & Internship Programme via CINTEC

https://pip.cintec.cuhk.edu.hk/web/



Placement & Internship Programme via Career Planning and Development Centre (CPDC) https://cpdc.osa.cuhk.edu.hk/



Career Planning and Development Centre

OFFICE OF STUDENT AFFAIRS, THE CHINESE UNIVERSITY OF HONG KONG





ALL NEWS

LATEST NEWS

United Nations Major Group for Children and Youth - Remote Internship
20 November 2020

STEM Internship Scheme 2020 (Winter Intake) – Job Vacancies and Guidelines for CUHK Students
20 November 2020

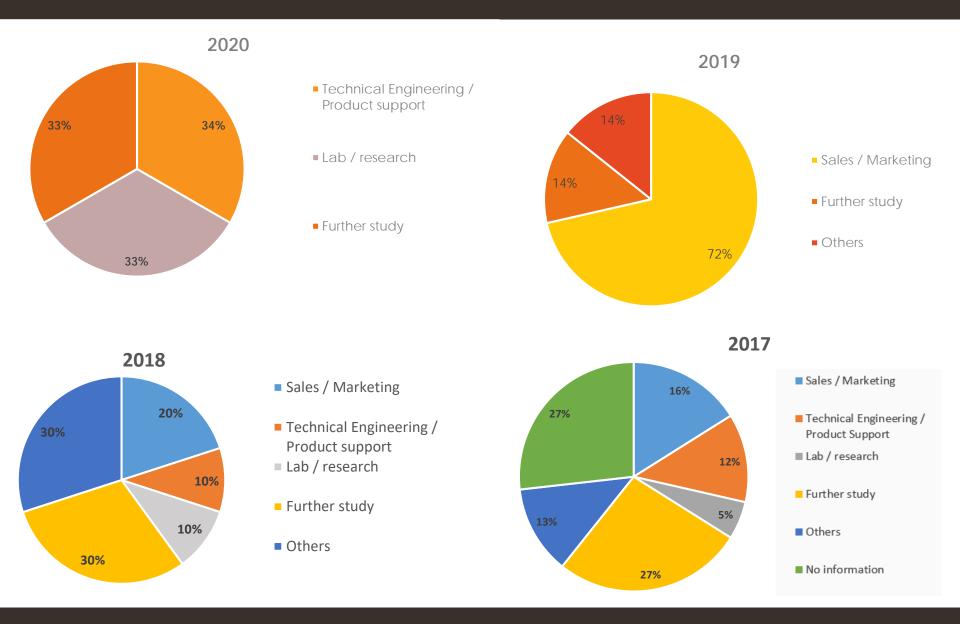
QUICK LINKS

PHOTO GALLERY

- Office of Student Affairs
- Careers E-coach
- CU Job Link
- Joint Institutions Job Information System (JIJIS)



BME Graduates Employment Survey



Faculty Undergraduate Summer Research Internship

https://www.erg.cuhk.edu.hk/erg/SummerResearchInternship

Non-final year undergraduate students with a **<u>cumulative GPA of 3.3</u>** or above are eligible to apply.

PEOPLE



INNOVATION FOR LIFE



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EDUCATION

- > DEPARTMENTS
- > ACADEMIC **PROGRAMMES**
- > TEACHING AND LEARNING
- > INFORMATION FOR **NEW STUDENTS**
 - > ELITE Stream
 - > UG Summer Research Internship

Undergraduate Summer Research Internship

RESEARCH

Objective

The Faculty Undergraduate Summer Research Internship programme is launched to offer CUHK engineering undergraduate students with funding support to undertake a research project under the supervision of professors in summer. The objectives are to give students exposure to research environment, and grooms them for graduate studies and overseas summer research schemes.

NEWS

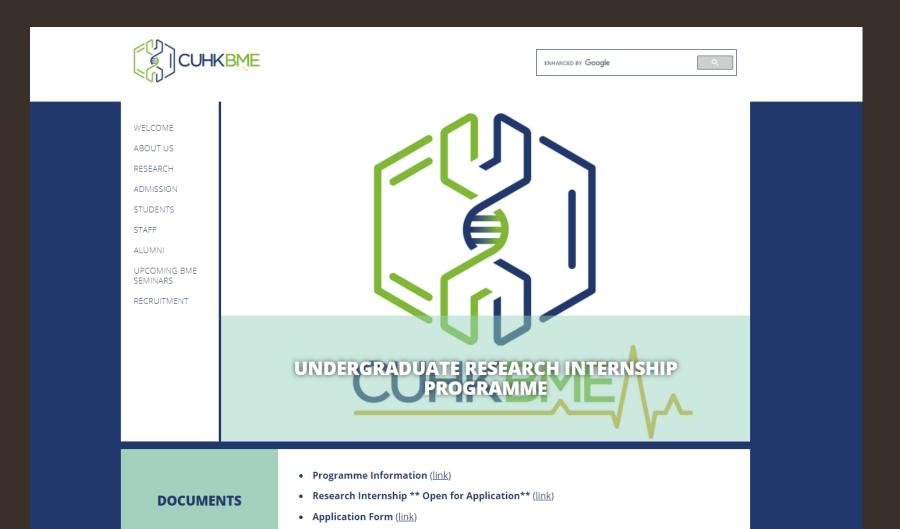
The Scheme

- 1. Non-final year undergraduate students with a CGPA of 3.3 or above are eligible.
- 2. Students who are planning and/or is going to participate summer programmes or take summer courses overseas for more than three weeks accumulatively or need to take more than three weeks of accumulated leave are not eligible for the internship programme.
- 3. The scheme is for undergraduate students with research interest to join on the voluntary basis, and it is currently a non-credit bearing program.
- 4. The student will need to approach a professor in the Faculty (in any department) to be his/her supervisor based on the proposed project title the professor provided.

BME Undergraduate Research Internship (year-long)

http://www.bme.cuhk.edu.hk/new/ug_internship.php

BME Undergraduate students with a <u>cumulative GPA of 2.8 or above</u> are eligible to apply (Final Year students are NOT allowed to join the programme during the summer)



Stream Preference and Declaration

Students may choose not to specialize in any stream or to specialize in one of the three streams and complete a minimum of 12 units (for students admitted on or after 2016-17) of courses, at most one elective at 2000 or below level, plus BMEG4998/ESTR4998 and BMEG4999/ESTR4999, prescribed by the stream.

Medical Instrumentation and Biosensors

- At least 12 units chosen from the following courses
- BMEG4998 and 4999 in an approved topic relevant to the Stream
- Students are allowed to take a maximum of 3 units of CSCI course(s) at 1000 or above level

Offering in Term 1, 2020-21

BMEG3130 Tele-Medicine and Mobile Healthcare

Offering in Term 2, 2020-21

- BMEG3330/ESTR3602 Neuroengineering
- BMEG3440 Global Engineering Medical Innovation
- BMEG4520 Cardiovascular Engineering

Not scheduled in 2020-21

- BMEG3210/ESTR3212 Biofluids
- BMEG3420 Medical Robotics
- BMEG4220 Body Sensor Networks
- BMEG4330/ESTR4201 Advanced Imaging and Spectroscopy Techniques in Biomedicine
- BMEG4410/ESTR4203 BioMEMS
- BMEG4450/ESTR4202 Bionanotechnology
- BMEG4540 Electrophysiology
- ELEG3201/ESTR3200 Microelectronic Devices and Circuits
- ENGG2120 Introduction to Digital and Microprocessor Systems

Biomedical Imaging, Informatics and Modeling

- At least 12 units chosen from the following courses
- BMEG4998 and 4999 in an approved topic relevant to the Stream
- Students are allowed to take a maximum of 3 units of CSCI course(s) at 1000 or above level

Offering in Term 2, 2020-21

- BMEG3102 Bioinformatics
- BMEG3440 Global Engineering Medical Innovation

Not scheduled in 2020-21

- BMEG3103 Big Data in HealthCare
- BMEG3105 Data Analytics for Personalized Genomics and Precision Medicine
- BMEG3120 Database and Security for Biomedical Engineering
- BMEG4103 Biomedical Modelling
- BMEG4320 Biomedical Imaging Applications (finally cancelled in 2020-21 Term 1 due to low enrollment)
- BMEG4330/ESTR4201 Advanced Imaging and Spectroscopy Techniques in Biomedicine

Molecular, Cell and Tissue Engineering

- At least 12 units chosen from the following courses
- BMEG4998 and 4999 in an approved topic relevant to the Stream
- Students are allowed to take a maximum of 3 units of CSCI course(s) at 1000 or above level

Offering in Term 1, 2020-21

- BIOL2120 Cell Biology
- BMEG4510/ESTR4204 Biomolecular Engineering
- MBTE4320 Genetic Engineering

Offering in Term 2, 2020-21

- BMEG3140 Molecular and Cellular Engineering Laboratory
- BMEG3440 Global Engineering Medical Innovation
- BMEG4520 Cardiovascular Engineering
- BMEG4530/ESTR4214 Musculoskeletal Tissue Engineering

Not scheduled in 2020-21

- BMEG3210/ESTR3212 Biofluids
- BMEG4410/ ESTR4203 BioMEMS
- BMEG4450/ESTR4202 Bionanotechnology

January 2021:

Survey on Stream Preference & BMEG Elective Course Offering in next academic year 2021-22 (for Year 2 or above, Year 1 Senior-year entry students)

April 2021:

Stream Declaration Form (in google form format) will be sent to the Final Year Graduating Students, i.e. Students who are expected to be graduated in 2020-21 Term 2.

** Certifying letter for BME stream will be issued to students who have fulfilled the course requirement of stream of their admission year by early August.

For students who are expected to be graduated in 2020-21 Term 1 and would like to declare stream, please send an email request to bmeinfo@cuhk.edu.hk and provide us with the below information by 31 December 2020:

- Full Name
- SID
- Admission Year
- Declaration of Stream
- List out the elective courses that you have been completed or going to be completed before 2020-21 Term 1

** at least 9 units (for students admitted on or before 2015-16) / 12 units (for students admitted on or after 2016-17) from the elective courses listed in the study scheme.

** Certifying letter for BME stream will be issued to this batch of graduating students by January 2021.



香港中文大學生物醫學工程學系

Department of Biomedical Engineering The Chinese University of Hong Kong





香港中文大學生物醫學工程學系

Department of Biomedical Engineering The Chinese University of Hong Kong



1 August 2020

1 August 2020

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

Stream of Specialization

This is to certify that <Student Name> (Student ID: XXXXXXXXXX) has fulfilled all the requirements for the stream of specialization in Medical Instrumentation and Biosensors for the B.Eng. degree in Biomedical Engineering.

For verification of student data, please send request to bmeinfo@cuhk.edu.hk or contact us (+852) 3943 1935.

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

Stream of Specialization

This is to certify that <Student Name> (Student ID: XXXXXXXXX) has fulfilled all the requirements for the stream of specialization in **Biomedical Imaging**, **Informatics and Modeling** for the B.Eng. degree in Biomedical Engineering.

For verification of student data, please send request to bmeinfo@cuhk.edu.hk or contact us (+852) 3943 1935.



香港中文大學生物醫學工程學系

Department of Biomedical Engineering The Chinese University of Hong Kong



Yours faithfully,

Professor Raymond K.Y. Tong Chairman Department of Biomedical Engineering The Chinese University of Hong Kong

1 August 2020

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

Stream of Specialization

This is to certify that <Student Name> (Student ID: XXXXXXXXX) has fulfilled all the requirements for the stream of specialization in Molecular, Cell and Tissue Engineering for the B.Eng. degree in Biomedical Engineering.

For verification of student data, please send request to bmeinfo@cuhk.edu.hk or contact us (+852) 3943 1935.

Change of Curriculum

REMINDER!!

Course Substitution for ENGG1100, ENGG1410, ENGG2420 & ENGG2450

Course	Course to be taken for course substitution to fulfill the major requirement	
ENGG1100 Introduction to Engineering Design - NOT offered effective from 2019-20	MAEG1020 Computational Design and Fabrication OF ELEG2700 Introduction to Electronic System Design MAEG1020 will be offered in 2020-21 Term 2. If you would like to register the course, please send an email request to bmeinfo@cuhk.edu.hk.	
ENGG1410 Linear Algebra and Vector Calculus for Engineers - NOT offered effective from 2019-20	ENGG1120 Linear Algebra for Engineers OR ENGG1130 Multivariable Calculus for Engineers Both of the courses will be offered in 2020-21 Term 2. If you would like to register the course, please send an email request to bmeinfo@cuhk.edu.hk.	
ENGG2420 Complex Analysis and Differential Equations for Engineers - NOT offered effective from 2020-21	BMEG2410 Complex Analysis and Differential Equations The course has been offered in 2020-21 Term 1.	
ENGG2450 Probability and Statistics for Engineers Engineers - NOT offered effective from 2020-21	STAT3210 Statistical Techniques in Life Sciences STAT3210 will be offered in 2020-21 Term 2. Please register the course via CUSIS during the course registration / add-drop period.	

Change of Curriculum

REMINDER!!

Curriculum Changes in 2020-21 & 2021-22

Course	Actions Taken in 2020-21	Curriculum Changes	Course Substitution
BMEG2011 Biomedical Engineering Laboratory and Hospital Experience – will be offered for the LAST time in 2020-21 Term 2	For students admitted in 2019-20 and students who need to take/retake BMEG2011 for fulfilling major required course requirements: • BMEG2011 has been pre-assigned to students in 2020-21 Term 2 • Summer Practical Training will be held in Summer 2021 • The grade of BMEG2011 will be released after completion of the summer practical training	Curriculum Changes effective from 2021-22 BMEG2012 Biomedical Engineering Laboratory (2 units) BMEG2602 Hospital Experience and Engineering Practicum (1 unit)# *** BMEG2602 will be first opened in Summer 2021 (for BME students who are newly admitted in 2020-21)	*** For those who cannot complete BMEG2011 but pass the Summer Practical Training by the academic year of 2020-21, they will need to take BMEG2012 for the course substitution. *** For those who have completed BMEG 2011 without the Summer Practical Training by the summer 2021, they will need to take Summer Practical Training in the following year. The grade of BMEG2011 may be affected.

Change of Curriculum

REMINDER!!

Curriculum Changes in 2021-22 & 2022-23

Course	Curriculum Changes	Course Substitution
BMEG3101 Medical Instrumentation and Design (3 units) – will be offered for the LAST time in 2021-22 Term 2	Curriculum Changes effective from 2022-23 BMEG3111 Medical Instrumentation and Design (2 units)	*** For those who cannot complete BMEG3101 by the academic year of 2021-22, they will need to take BMEG3111 (2-unit) and take one more course with at least 1-unit for the course substitution.

Upcoming BME Activities

BME Alumni Talk

Jan-Feb 2021

BME Career Forum

Feb-March 2021