Teaching Time Tables

Teaching Terms

First term	September 3, 2018 (Mon) – December 21, 2018 (Fri)
Add/Drop	September 3, 2018 (Mon) at 10:00 a.m. – September 17, 2018 (Mon) at 5:30 p.m.
Course Examination	The **LAST** lesson of the course (to be confirmed)
Second term	January 7, 2019 (Mon) – May 3, 2019 (Fri)
Add/Drop	January 7, 2019 (Mon) at 10:00 a.m. – January 21, 2019 (Mon) at 5:30 p.m.
Course Examination	The **LAST** lesson of the course (to be confirmed)

No Summer Term to be offered

Timetable of Required and Elective Courses

1st Term, 2018-2019 (Period: September 3, 2018 (Mon) – December 21, 2018 (Fri))					
Day	Monday	Tuesday	Wednesday	Thursday	To be arranged by supervisor
Course code	BMEG5710	BMEG5720	BMEG5820	BMEG5760	BMEG5910
	Required	Required	Elective	Elective	Elective
2nd Term, 2018-2019 (Period: January 7, 2019 (Mon) – May 3, 2019 (Fri))					
Day	Monday	Tuesday	Wednesday	Thursday	To be arranged by supervisor
Course code	BMEG5750	BMEG5840	BMEG5850	BMEG5790	BMEG5910
	Elective	Elective	Elective	Elective	Elective

** Students are allowed to take up TWO elective courses from the specified group, but no more than ONE from each group; subject to approval of Divisions/Units concerned. For course detail from specific group, please refer the Curriculum Structure.

Course Information

1st Term, 2018-2019 (Period: September 3, 2018 (Mon) – December 21, 2018 (Fri))

- BMEG 5710
- BMEG 5720
- BMEG 5760
- BMEG 5820
- BMEG 5910

BMEG 5710 (Required Course for Year 1 Student)

Course Code:	**BMEG 5710**
Course Title:	Introduction to Biomedical Engineering
Day of Week:	Monday
Period:	6:45 p.m. - 9:45 p.m.
Venue:	Room 508, Wu Ho Man Yuen Building, CUHK (WMY_508)
Course Outline:	Definition, scope, basic principles and problems in biomedical engineering. Applications of technology to medicine and biology. Contemporary issues and roles of engineering applied to complex biological systems. Brief description of professional ethics.

BMEG 5720 (Required Course for Year 1 Student)

Course Code:	**BMEG 5720**
Course Title:	Basic Biomedical Science
Day of Week:	Tuesday
Period:	6:45 p.m. - 9:45 p.m.
Venue:	Room 206, Esther Lee Building, CUHK (ELB_206)
Course Outline:	This course introduces students to the structure and function of anatomy, physiology, and chemical constituents of living systems. The course provides a system-based review of the structure and function, normal as well as abnormal, of cells, organs and systems. Emphases will be placed on those structures/functions that are important in biomedical engineering. Case studies will also be included to introduce the importance of medical sciences related to biomedical engineering.

BMEG 5760

Course Code:	**BMEG 5760**
Course Title:	BioMEMS and Bio-Nanotechnology

Day of Week:	Thursday
Period:	6:45 p.m. - 9:45 p.m.
Venue:	Room 804, William M.W. Mong Engineering Building, CUHK (ERB_804)
Course Outline:	Introduction to MEMS and Nanotechnology, with focus on biomedical applications. Recent developments in BioMEMS, including micro-fluidic systems, integrated DNA analysis chips, and micro-fabricated bio-detection and cell-sorting systems. Recent advances in nanoscale biomedical applications, including AFM based bio-manipulation and bio-sensing, soft-lithography for DNA, proteins and cells, self-assembly of peptides and proteins, nanoscale drug delivery systems, and bio-nano-informatics fusion.

BMEG 5820

Course Code:	**BMEG 5820**
Course Title:	Virtual Medicine and Computer Aided Surgery
Day of Week:	Wednesday
Period:	6:45 p.m. - 9:45 p.m.
Venue:	(a) Seminar Room, Orthopaedic Learning Centre, 1/F Li Ka Shing Specialist Clinics North Wing, Prince of Wales Hospital, Shatin; or (b) Rm303, Li Ka Shing Medical Science Building, Prince of Wales Hospital, Shatin; or (c) Surgical Skills Laboratory, Jockey Club Minimally Invasive Surgical Skills Centre, Prince of Wales Hospital, Shatin; or (d) Room 306, Wu Ho Man Yuen Building, The Chinese University of Hong Kong, Shatin (WMY 306)
Course Outline:	Image guided surgery, including CT base, fluoro-image, and others; non-image guided surgery. Introduction to clinical applications. Virtual reality and surgical simulation. Augmented reality and image-guided minimally invasive surgery. Use of telerobotics in surgery. Surgical navigation.

BMEG 5910

Course Code:	**BMEG 5910**
Course Title:	M.Sc. Project
Period:	To be arranged by supervisors
Day of week:	Meetings will be arranged between students and supervisors
Course Outline:	The objective of this course is for students to get hands-on practical experience. Each student is required to design, simulate or test a medical device/algorithm/bioinformatics database.

2nd Term, 2018-2019 (Period: January 7, 2019 (Mon) – May 3, 2019 (Fri))

- BMEG 5750
- BMEG 5790
- BMEG 5840
- BMEG 5850
- BMEG 5910

BMEG 5750

Course Code:	**BMEG 5750**
Course Title:	Medical Robotics
Day of Week:	Monday
Period:	6:45 p.m. - 9:45 p.m.
Venue:	Room 401, William M.W. Mong Engineering Building, CUHK (ERB_401)
Course Outline:	Introduction to robotics and its applications in biomedical engineering including diagnosis, surgery, and medical simulation. Classification of robot systems, forward and inverse kinematics associated to manipulator motion, robot design, control, sensing, and programming.

BMEG 5790

Course Code:	**BMEG 5790**
Course Title:	Bioinformatics
Day of Week:	Thursday
Period:	6:45 p.m. - 9:45 p.m.
Venue:	(a) ITSC Training Room, Pi Ch'iu Building, CUHK (b) G01, Hui Yeung Shing Building, CUHK (HYS_G01)
Course Outline:	This course covers DNA and protein bioinformatics. It introduces basic programming techniques, sequence analysis, including alignment of sequence, database search, statistical analysis, phylogenetic trees, scoring matrices, pattern recognition, clustering and structural prediction in bioinformatics.

BMEG 5840

Course Code:	**BMEG 5840**
Course Title:	Biomedical Engineering Laboratories
Day of Week:	Tuesday
Period:	6:45 p.m. - 9:45 p.m.

Venue:	Room 401, William M.W. Mong Engineering Building, CUHK (ERB_401)
Course Outline:	This course aims to provide students from different science & engineering backgrounds opportunities to learn how to fabricate simple medical materials and devices, how to collect data on human subjects and other biological samples, and how to analyze the results to address various health-related issues. The course starts with a series of lectures on the principles underpinning each of the planned laboratory modules. Students will then form teams to conduct a number of hand-on laboratory modules in different areas of biomedical engineering to achieve the course aims and learning outcomes. Examples of laboratory modules include fabrication of basic biomedical device for biosignal acquisition, advanced electrophysiological techniques, fabrication of biomaterials for drug deliveries, PCR and gel electrophoresis, confocal fluorescence microscopy, functional MRI data processing, biomedical imaging for musculoskeletal applications, measurement of interfacial pressure at body support surfaces, electromyography & exoskeleton hand robot, etc.

BMEG 5850

Course Code:	**BMEG 5850**
Course Title:	Medical Device Regulatory Affairs and Intellectual Property
Day of Week:	Wednesday
Period:	6:45 p.m. - 9:45 p.m.
Venue:	Room 402, Wu Ho Man Yuen Building, CUHK (WMY_402)
Course Outline:	This course provides an overview on medical device regulation and intellectual property. Regulatory affairs is how to get a medical product registered in different countries' health authorities. A registered product would demand a lot of technical documentation to prove its efficacy, safety, and quality. To successfully and smoothly register a product, knowledge and skills are required to deal with various key stakeholders in governments, testing centers, hospitals, and medical doctors. Intellectual Property, such as patent, is to protect the invention and to support licensing their rights to manufacturers in the medical device industry.

BMEG 5910

Course Code:	**BMEG 5910**
Course Title:	M.Sc. Project
Period:	To be arranged by supervisors
Day of week:	Meetings will be arranged between students and supervisors
Course Outline:	The objective of this course is for students to get hands-on practical experience. Each student is required to design, simulate or test a medical device/algorithm/bioinformatics database.

General Information

General Arrangements for Classes and Examinations on Approach of Typhoons and Rainstorms

A. Suspension of Classes (except medical students at the Prince of Wales Hospital)

(a) If the local storm warning signal No. 8 or above or the black rainstorm signal is issued at the following hours, classes will be suspended as appended below:

Signal issued by	Classes of Programme affected	Sessions/Periods suspended
7:00 a.m.	(a) All Postgraduate Programmes (other than those specified below)	8:30 a.m. - 1:15 p.m.
12:00 noon	(a) All Postgraduate Programmes (other than those specified below)	1:30 p.m. - 6:15 p.m.
	(b) Executive MBA Programme (for Saturday classes)	2:00 p.m. - 6:45 p.m.
5:00 p.m.	(a) All Postgraduate Programmes (other than those specified below)	From 6:30 p.m. onward
	(b) All Postgraduate Programmes run by the Faculty of Medicine	Evening sessions

(b) If the local storm warning signal No. 8 or above or the black rainstorm signal is issued during a class period, all classes will be suspended immediately. When the black rainstorm signal is still in force, staff members and students are advised to take shelter at a safe place until the weather and traffic conditions have improved.

(c) Public announcements on suspension of classes made by the Education Bureau are not applicable to the University.

B. Examination Arrangements

The arrangements for course examinations will be as follows:

Typhoon Signal	Rainstorm Signal	Signal Issued	Examination Arrangements*
No. 1 or No. 3	Amber or Red	-	Examinations to be held as scheduled
No. 8 or above	Black	After the start of the examination	Examinations will continue until the end of the session
		8:00 a.m. or after	All course examinations, daytime postgraduate examinations postponed
		5:00 p.m. or after	Evening examinations of postgraduate programmes postponed