(For all students in the Program)

Undergraduate Minor Program in Bioengineering

HKUST's Bioengineering Program (BIEN) offers a minor in bioengineering that is designed for undergraduate students interested in applying engineering principles to biological problems. Any undergraduate students at HKUST with a minimum CGA of 2.15 or above may enroll in the Bioengineering Minor Program. Students must declare their intention to enroll in the minor program no earlier than the first regular term of their second year of study but no later than the last day of the add/drop period in the first regular term of their final year of study. Students who wish to withdraw from the minor program should apply before the last day of add/drop period in the last regular term of their study.

The Bioengineering Minor Program requires a minimum of 18 credits to be taken from the following courses:

Required courses

				Credit(s)
(1)		BIEN 2010	Application of Engineering in Life Science	3
(1)	or	CENG 1600	Biotechnology and Its Business Opportunities	3
	or	CENG 4620	Bioproducts and Processing	3
	or	CENG 4660	Introduction to Biomicrosystem	3
		LIFS 2030	Nature of Biochemistry and Biotechnology	3
	or	LIFS 2040	Cell Biology	3
	or	LIFS 2210	Introduction to Biochemistry	3

Elective courses

	Elective types		Minimum no. of courses	Minimum total credits
(1,2)	BIEN	Elective for specialised study in Bioengineering	-	12

Notes:

(1) Either BIEN 2010 or CENG 1600, but not both, can be counted toward the credits of the minor program.

(2) 12 credits need to be taken from the following elective course groups:
Group 1 courses: LIFS 2030, LIFS 2040, LIFS 2210, LIFS 2220
Group 2 courses: LIFS 4060, LIFS 4150, LIFS 4630
Group 3 course: LIFS 4580
Group 4 courses: BIEN 2010, CENG 1600, CENG 4620, CENG 4660
Group 5 courses: CENG 1500, CENG 4520, CENG 4540, MECH 2410
Group 6 courses: CENG 4650 (prior to 2009-10), CENG 4670
Group 7 courses: COMP 1001, COMP 1002, COMP 1004 (prior to 2013-14)
Group 8 courses: COMP 4421, ELEC 4130
Group 9 courses: ELEC 2400, ELEC 2410
Group 10 course: ELEC 4810
Group 11 course: ELEC 4820
Group 12 courses: IELM 2510, MECH 4740
Group 13 course: MATH 4333

(2a) At least one course must be at 4000- taken in 2011-12 and after or at 300-level taken prior to 2011-12;

(2b) No more than one course within the same course group can be counted toward the elective requirements of this minor.

(2c) The following is the list of electives grouped by areas of study for students' reference:

Bioprocessing:
BIEN 2010/CENG 1600/CENG 4620/CENG 4660; CENG 4650 (prior to 2009-10)/CENG 4670; ELEC 4810; IELM 2510; LIFS 2030/LIFS 2040/LIFS 2210/LIFS 2220; LIFS 4630

Biological informatics and data processing:
BIEN 2010; COMP 1001/COMP 1002/COMP 1004 (prior to 2013-14); COMP 4421/ELEC 4130; ELEC 4810; ELEC 4820;
IELM 2510/MECH 4740; LIFS 2030; LIFS 4580; MATH 4333

Applied Bioscience:
BIEN 2010/CENG 1600/CENG 4620/CENG 4660; CENG 1500/CENG 4520/CENG 4540/MECH 2410; CENG 4650 (prior to 2009-10)/CENG 4670; ELEC 2400/ELEC 2410; ELEC 4810; LIFS 2030/LIFS 2040; LIFS 4060/LIFS 4150/LIFS 4630

For credit transfer, students can transfer a maximum total of 6 credits to the minor program. Courses accepted for transfer credits must normally be at a level equivalent to HKUST courses of 2000-level or above taken in 2011-12 and after, or at 100-level or above taken prior to 2011-12.

For students admitted in 2012-13 or after, no more than 9 credits taken to fulfill other requirements may count towards this minor program.

To graduate with a minor in Bioengineering, the students must be enrolled in the minor program and complete all of its requirements, as well as the requirements of the major program of study; and have attained an average grade point of at least 2.15 in courses taken within the minor program.