(For students admitted in 2012-13 under the 3-year degree)

Curriculum for BEng in Chemical and Bioproduct Engineering

General Requirements

Students are required to complete the following general requirements for graduation in addition to program specific requirements:

Required Courses in English Communication
Common Core Requirements
Required Course in Physical Education

For details please refer to the section "General Requirements" on this website.

Program Specific Requirements

Credit(s)

Required courses

(2)		CENG 1500	A First Course on Materials Science and Applications	3
(2)	or	CENG 1600	Biotechnology and Its Business Opportunities	3
(2)	or	CENG 1700	Introduction to Environmental Engineering	3
(1)		CENG 1980	Industrial Training	0
		CENG 2010	Chemical Process Principles	3
		CENG 2030	Products and Processes	3
		CENG 2210	Chemical Engineering Thermodynamics	3
		CENG 2220	Process Fluid Mechanics	3
		CENG 3120	Process Design and Integration	3
		CENG 3210	Separation Processes	3
		CENG 3220	Heat and Mass Transfer	3
		CENG 3230	Reaction and Reactor Engineering	3
		CENG 3910	Chemical Engineering Laboratory I	3
		CENG 3926	Bioproduct Engineering Laboratory**	3
		CENG 4120	Process Dynamics and Control	3
		CENG 4130	Plant Design and Economics	3
		CENG 4620	Bioproducts and Processing	3
		CENG 4640	Biomolecular Engineering	3
		CENG 4913	Chemical and Bioproduct Engineering Project	6
		COMP 1022Q	Introduction to Computing with Excel VBA	3
		IELM 2200	Engineering Management	3
		IELM 4110	Engineers in Society	1
		CHEM 2411	Physical Chemistry: Fundamentals and Applications	3
		LIFS 2030	Nature of Biochemistry and Biotechnology	3
		LIFS 2040	Cell Biology	3
(3)		MATH 1018	Concise Calculus	4
		MATH 2011	Introduction to Multivariable Calculus	3
		MATH 2111	Matrix Algebra and Applications	3

MATH 2351	Introduction to Differential Equations	3
MATH 3311	Introduction to Numerical Methods	2

Elective courses

	Elective types		Minimum no. of courses	Minimum total credits
(4)	CENG	Chemical Engineering Elective	1	3
	SB&M	Business and Management Elective	1	3

Other Requirements

	CENG 1010	Academic and Professional Development I	0
or	CENG 2000	Introduction to Chemical and Biomolecular Engineering	1
	CENG 4020	Academic and Professional Development II	0

***Remarks on course(s):*

- CENG 3926: The course title will be changed to "Biomolecular Engineering Laboratory" starting from Fall, 2014-15.

Notes:

(1) Students are required to complete and pass a prescribed training program within the normal length of study. Details of the program, its requirements and schedule will be announced on the website of the Industrial Training Center (http://www.ust.hk/itc) or website of the department in the first year Fall term. Training normally takes place in the Winter and Summer terms starting from the first year of study. For recording the overall training results, students are normally registered for the course in their last term of study.

(2) Students admitted through the School-based Admission Scheme are not required to take CENG 1500, CENG 1600 or CENG 1700. They should take one additional Chemical Engineering (CENG) Elective course to make up the 3 credits shortfall. For detailed requirements on CENG Elective, please refer to note (4).

(3) School-based admittees or students who have grade D or better in AL Pure Mathematics or in AL Applied Mathematics are not required to take MATH 1018.

(4) Chemical Engineering Electives are to be chosen from CENG courses at 4000-level or above. ENGG 4950 can be used to count toward the CENG elective requirement.

A minimum of 100 credits is required for the BEng program in Chemical Bioproduct Engineering. Students must take additional course(s) and/or elective(s) of higher-than-required credit value to meet the minimum total of 100 credits. For students who are required to take MATH 1018, the minimum total required is 103 credits.

For students admitted through the School-based Admission Scheme - Engineering A, a minimum of 101 credits is required for their program completion.