The Hong Kong University of Science and Technology

**Academy of Interdisciplinary Studies**

An Example on Student's Pathway (as of August 8, 2024)

**BEGBM** **2024-25 Intake**

(Via DDP PBA)

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | *<< Declaration of BEng major* | | *<< Declaration of BBA major* | | | | | | | | | | |
| **School:** | | **School of Engineering and School of Business Management** | | Student's Pathway | | | | | | | | | | | | | | | |
| **Program:** | | **Dual Degree Program (BEng in Bioengineering and BBA in General Business Management)** | | | | | | | | | | | | | | | | | **Remarks** |
| Course Offering Dept (course code prefix) | Course Code | Course Title / Courses List | Credits | Year 1 Fall | Year 1 Spring | Year 2 Fall | Year 2 Spring | Year 3 Fall | Year 3 Spring | Year 4 Fall | Year 4 Spring | Year 5 Fall | Year 5 Spring | **Sub-total** | |
| **BEng in Bioengineering** | | | | | | | | | | | | | | | |
| **Major Requirements** | | | | | | | | | | | | | | | |
| Engineering Fundamental Courses | | | | | | | | | | | | | | | |
| | | Note: [COMP 1021] OR [(COMP 1022P OR COMP 2011) AND COMP1029P] | 3-6 | | | | | | | | | | | | |
| COMP | 1021 | Introduction to Computer Science | 3 | | | | | | | | | | | | |
| COMP | 1022P | Introduction to Computing with Java | 3 | | 3 | | | | | | | | | 3 | Students should take COMP1021 which will also be used to substitute ISOM 2010 and to waive ISOM 2020 |
| COMP | 1029P | Python Programming Bridging Course | 1 | | | | | | | | | | | | |
| COMP | 2011 | Programming with C++ | 4 | | | | | | | | | | | | |
| COMP | 2012H | Honors Object-Oriented Programming and Data Structures | 5 | | | | | | | | | | | | |
| CHEM | 1012 | General Chemistry B: Atomic Structure, Molecules, and Bonding Theories | 3 | 3 | | | | | | | | | | 3 | |
| CHEM | 1052 | Laboratory for General Chemistry B | 1 | 1 | | | | | | | | | | 1 | |
| LIFS | 1901 | General Biology I | 3 | 3 | | | | | | | | | | 3 | |
| | | Note: [(MATH 1012 OR MATH 1013 OR MATH 1023) AND (MATH 1014 OR MATH 1024)] OR [MATH 1020] | 4-7 | | | | | | | | | | | | |
| MATH | 1012 | Calculus IA | 4 | | | | | | | | | | | | |
| MATH | 1013 | Calculus IB | 3 | 3 | 3 | | | | | | | | | 6 | |
| MATH | 1014 | Calculus II | 3 | | | | | | | | | | | | |
| MATH | 1020 | Accelerated Calculus | 4 | | | | | | | | | | | | |
| MATH | 1023 | Honors Calculus I | 3 | | | | | | | | | | | | |
| MATH | 1024 | Honors Calculus II | 3 | | | | | | | | | | | | |
| | | Note: PHYS 1112 OR PHYS 1312 | | | | | | | | | | | | | |
| PHYS | 1112 | General Physics I with Calculus | 3 | | | 3 | | | | | | | | 3 | |
| PHYS | 1312 | Honors General Physics I | 3 | | | | | | | | | | | | |
| SENG | | Engineering Introduction course (If the students take an introduction course included in their major, this course can be counted towards their major requirement.) | 3-4 | | (3) | | | | | | | | | 0 | |
| | | **Required credits for Engineering Fundamental Courses** | 20-27 | | | | | | | | | | | 19 | |
| Major Required Courses and Electives | | | | | | | | | | | | | | | |
| | | Note: BIEN 1010 OR CENG 1000 | | | | | | | | | | | | | |
| BIEN | 1010 | Introduction to Biomedical Engineering | 3 | | 3 | | | | | | | | | 3 | |
| CENG | 1000 | Introduction to Chemical and Biological Engineering | 3 | | | | | | | | | | | | |
| BIEN | 2310 | Modeling for Chemical and Biological Engineering | 3 | | | 3 | | | | | | | | 3 | |
| BIEN | 2410 | Cellular and Systems Physiology for Engineers | 3 | | | | | | 3 | | | | | 3 | |
| BIEN | 2610 | Chemical Biology for Engineers | 3 | | | 3 | | | | | | | | 3 | |
| BIEN | 2990 | Academic and Professional Development I | 1 | | | 1 | | | | | | | | 1 | |
| BIEN | 3300 | Data Science for Molecular Engineering | 3 | | | | | 3 | | | | | | 3 | |
| | | Note: BIEN 3310 OR BIEN 3320 | | | | | | | | | | | | | |
| BIEN | 3310 | Data Science for Neural Engineering | 3 | | | | 3 | | | | | | | 3 | |
| BIEN | 3320 | Data Science for Biology and Medicine | 3 | | | | | | | | | | | | |
| BIEN | 3410 | Introduction to Bioinstrumentation and Bioimaging | 3 | | | | | | | 3 | | | | 3 | |
| BIEN | 3910 | Bioengineering Laboratory | 4 | | | | | | | 4 | | | | 4 | |
| | | Note: BIEN 4920 OR BIEN 4930 OR BIEN 4940 | | | | | | | | | | | | | |
| BIEN | 4920 | Bioengineering Capstone Design | 6 | | | | | | | | | | | | |
| BIEN | 4930 | Bioengineering Thesis Research | 6 | | | | | | | | | 3 | 3 | 6 | |
| BIEN | 4940 | Bioengineering Industrial Project | 6 | | | | | | | | | | | | |
| BIEN | 4990 | Academic and Professional Development II | 1 | | | | | | | | | | 1 | 1 | |
| CENG | 2210 | Chemical and Biological Engineering Thermodynamics | 3 | | | | 3 | | | | | | | 3 | |
| CENG | 2220 | Transport Phenomena I | 3 | | | | | | | | | 3 | | 3 | |
| CENG | 3230 | Chemical and Biological Reaction Engineering | 3 | | | | | | | 3 | | | | 3 | |
| ENGG | 2010 | Engineering Seminar Series | 0 | | | 0 | 0 | 0 | 0 | | | | | 0 | |
| SSCI/SENG | | Bioengineering Electives (5 courses from the specified elective list, of which at least 9 credits should be taken from a single specialty area (Area 1 or Area 2). Out of the 15 credits taken, at least 9 credits should be at 4000-level) | 15 | | | | | | 3 | | 6 | | 6 | 15 | |
| | | **Required credits for Major Required Courses and Electives** | 57 | | | | | | | | | | | 57 | |
| **BBA in General Business Management** | | | | | | | | | | | | | | | |
| **School Requirements** | | | | | | | | | | | | | | | |
| ACCT | 2010 | Principles of Accounting I | 3 | 3 | | | | | | | | | | 3 | |
| ACCT | 2200 | Principles of Accounting II | 3 | | | | | | 3 | | | | | 3 | |
| | | Note: ECON 2103 OR ECON 2113 | | | | | | | | | | | | | |
| ECON | 2103 | Principles of Microeconomics | 3 | | | 3 | | | | | | | | 3 | |
| ECON | 2113 | Microeconomics | 3 | | | | | | | | | | | | |
| | | Note: ECON 2123 OR ECON 3123 | | | | | | | | | | | | | |
| ECON | 2123 | Macroeconomics | 3 | | | | | | | 3 | | | | 3 | |
| ECON | 3123 | Macroeconomic Theory I | 3 | | | | | | | | | | | | |
| FINA | 2303 | Financial Management | 3 | | | | 3 | | | | | | | 3 | |
| ISOM | 2010 | Introduction to Information Systems | 3 | - | - | - | - | - | - | - | - | - | - | 0 | Substituted by COMP 1021/1022P/2011/2012H |
| ISOM | 2020 | Coding for Business | 1 | - | - | - | - | - | - | - | - | - | - | 0 | Waived for DDP students if they have taken and passed COMP1021 or COMP 1029P |
| ISOM | 2500 | Business Statistics | 3 | | 3 | | | | | | | | | 3 | |
| ISOM | 2600 | Introduction to Business Analytics | 1 | - | - | - | - | - | - | - | - | - | - | 0 | Substituted by BIEN 3310/3320 |
| ISOM | 2700 | Operations Management | 3 | | | | | 3 | | | | | | 3 | |
| MARK | 2120 | Marketing Management | 3 | | | | 3 | | | | | | | 3 | |
| MGMT | 2010 | Business Ethics and the Individual | 2 | | | | | | | | 2 | | | 2 | |
| MGMT | 2110 | Organizational Behavior | 3 | | | | 3 | | | | | | | 3 | |
| MGMT | 2130 | Business Ethics and Social Responsibility | 2 | | | | | | | | | | 2 | 2 | |
| | | Note: MATH 1003 OR MATH 1012 OR MATH 1013 OR MATH 1020 OR MATH 1023 | 3-4 | | | | | | | | | | | | |
| MATH | 1003 | Calculus and Linear Algebra | 3 | | | | | | | | | | | | |
| MATH | 1012 | Calculus IA | 4 | (3) | | | | | | | | | | 0 | DDP students should take MATH 1012 or MATH 1013 or MATH 1020 or MATH 1023 to satisfy the requirements of both BEng and BBA degrees |
| MATH | 1013 | Calculus IB | 3 | | | | | | | | | | | | |
| MATH | 1020 | Accelerated Calculus | 4 | | | | | | | | | | | | |
| MATH | 1023 | Honors Calculus I | 3 | | | | | | | | | | | | |
| | | **Required credits for School Requirements** | 39-40 | | | | | | | | | | | 31 | |
| **Major Requirements** | | | | | | | | | | | | | | | |
| Major Required Courses and Electives | | | | | | | | | | | | | | | |
| SB&M | | SB&M Electives (Any 9 courses offered by the departments under SB&M, of which at least 4 courses are of 3000-level or above.) | 29 | | | | | 3 | 3 | 4 | 6 | 7 | 6 | 29 | |
| | | **Required credits for Major Required Courses and Electives** | 29 | | | | | | | | | | | 29 | |
| **Additional Requirements** | | | | | | | | | | | | | | | |
| **Requirements for Dual Degree Program** | | | | | | | | | | | | | | | |
| Required Courses | | | | | | | | | | | | | | | |
| TEMG | 1010 | T&M Professional Activities | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| TEMG | 3950 | T&M Case Analysis and Product Innovation | 3 | | 3 | | | | | | | | | 3 | |
| TEMG | 4950 | T&M Corporate Consulting Project | 3-5 | | | | | 4 | | | | | | 4 | |
| | | **Required credits for Additional Requirements** | 7 | | | | | | | | | | | 7 | |
| **University CORE** | | | | | | | | | | | | | | | |
| CORE | C3 - C9 | U CORE - Others | 21 | | | 3 | 3 | 6 | 6 | | 3 | | | 21 | |
| CORE | C1 & C2 | U CORE - English Language | 6 | 3 | 3 | | | | | | | | | 6 | |
| HMAW | 1905 | Behavioral Foundations of University Education: Habits, Mindsets, and Wellness | 3 | 1 | 2 | | | | | | | | | 3 | |
| | | **Sub-total for University CORE** | 36 | | | | | | | | | | | 30 | |
| | | | | Term load (excl. free credits) | | | | | | | | | | | |
| | | | | 17 | 20 | 16 | 18 | 19 | 18 | 17 | 17 | 13 | 18 | | |
| | | | | 173## | | | | | | | | | | | |
| | | | | | | *<< Declaration of BEng major* | | *<< Declaration of BBA major* | | | | | | | |

Notes:

( ) indicates the reuse of the same course to fulfill more than one requirement.

--- denotes the course/requirement is either waived or substituted

## To graduate, students should complete all requirements specified for DDP.

**Remarks on course(s):

*>> The content of this example is not necessarily equivalent to a complete list of graduation requirements of the program. Students should refer to the Program Catalog/UG Curriculum Handbook for updated graduation requirements. For up-to-date information on course offering and scheduling, students should check it out from respective School and Department.*