# The Hong Kong University of Science and Technology
## Academy of Interdisciplinary Studies
An Example on Student's Pathway (as of August 8, 2024)

**MEFINA** 2024-25 Intake
(Via DDP PBA)

| | | | | | | << Declaration of BEng major | << Declaration of BBA major | Student's Pathway | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

**School:** School of Engineering and School of Business Management

**Program:** Dual Degree Program (BEng in Mechanical Engineering and BBA in Finance)

| 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 | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **BEng in Mechanical Engineering** | | | | | | | | | | | | | | | |
| **Major Requirements** | | | | | | | | | | | | | | | |
| **Engineering Fundamental Courses** | | | | | | | | | | | | | | | |
| COMP | 1021 | Note: COMP1021 OR COMP1022P OR COMP2011 OR COMP2012H | 3-5 | 3 | | | | | | | | | | 3 | Students should take COMP1021 which will also be used to substitute ISOM 2010 and to waive ISOM 2020 |
| COMP | 1022P | Introduction to Computer Science | 3 | | | | | | | | | | | | |
| COMP | 2011 | Introduction to Computing with Java | 3 | | | | | | | | | | | | |
| COMP | 2012H | Programming with C++ | 4 | | | | | | | | | | | | |
| | | Honors Object-Oriented Programming and Data Structures | 5 | | | | | | | | | | | | |
| MATH | 1012 | Note: [(MATH 1012 OR MATH 1013 OR MATH 1023) AND (MATH 1014 OR MATH 1024)] OR [MATH 1020] | 4-7 | | | | | | | | | | | | |
| MATH | 1013 | Calculus IA | 4 | 3 | 3 | | | | | | | | | 6 | |
| MATH | 1014 | Calculus IB | 3 | | | | | | | | | | | | |
| MATH | 1020 | Calculus II | 3 | | | | | | | | | | | | |
| MATH | 1023 | Accelerated Calculus | 4 | | | | | | | | | | | | |
| MATH | 1024 | Honors Calculus I | 3 | | | | | | | | | | | | |
| | | Honors Calculus II | 3 | | | | | | | | | | | | |
| MATH | 2011 | Introduction to Multivariable Calculus | 3 | | | | | 3 | | | | | | 3 | |
| MATH | 2111 | Note: MATH2111 OR MATH2350 OR MATH2351 | 3 | | | | | | | | | | | | |
| MATH | 2350 | Matrix Algebra and Applications | 3 | | | | | | 3 | | | | | 3 | |
| MATH | 2351 | Applied Linear Algebra and Differential Equations | 3 | | | | | | | | | | | | |
| | | Introduction to Differential Equations | 3 | | | | | | | | | | | | |
| PHYS | 1112 | Note: PHYS1112 OR PHYS1312 | 3 | | 3 | | | | | | | | | 3 | |
| PHYS | 1312 | General Physics I with Calculus | 3 | | | | | | | | | | | | |
| | | Honors General Physics I | 3-4 | | | | | | | | | | | | |
| | | [1 course from the specified course list] | | | | | | | | | | | | | |
| PHYS | 1101 | Introductory Physics | 4 | | (3) | | | | | | | | | 0 | |
| CHEM | 1008 | Introductory Chemistry | 3 | | | | | | | | | | | | |
| CHEM | 1012 | General Chemistry B: Atomic Structure, Molecules, and Bonding Theories | 3 | | | | | | | | | | | | |
| LIFS | 1901 | General Biology I | 3 | | | | | | | | | | | | |
| | | **Required credits for Engineering Fundamental Courses** | 19-25 | | | | | | | | | | | 18 | |
| **Major Required Courses and Electives** | | | | | | | | | | | | | | | |
| MECH | 1990 | Industrial Training | 0 | | | 0* | 0^ | | | | | | | 0 | |
| MECH | 1906 | Mechanical Engineering for Modern Life | 3 | | | 3 | | | | | | | | 3 | |
| MECH | 2020 | Statics and Dynamics | 3 | | | 3 | | | | | | | | 3 | |
| MECH | 2040 | Solid Mechanics I | 3 | | | | | 3 | | | | | | 3 | |
| MECH | 2210 | Fluid Mechanics | 3 | | | | | 3 | | | | | | 3 | |
| MECH | 2310 | Thermodynamics | 3 | | | 3 | | | | | | | | 3 | |
| MECH | 2410 | Engineering Materials I | 3 | | | | 3 | | | | | | | 3 | |
| MECH | 2520 | Design and Manufacturing I | 3 | | | | 3 | | | | | | | 3 | |
| MECH | 3030 | Mechanisms of Machinery | 3 | | | | | | 3 | | | | | 3 | |
| MECH | 3300 | Note: MECH3300 OR MECH3420 OR MECH3520 OR MECH3710 | 3 | | | | | | | | | | | | |
| MECH | 3420 | Energy Conversion | 3 | | | | | | 3 | | | | | 3 | |
| MECH | 3520 | Engineering Materials II | 3 | | | | | | | | | | | | |
| MECH | 3710 | Design and Manufacturing II | 3 | | | | | | | | | | | | |
| | | Manufacturing Processes and Systems | 3 | | | | | | | | | | | | |
| MECH | 3310 | Heat Transfer | 3 | | | | | | 3 | | | | | 3 | |
| MECH | 3610 | Control Principles | 3 | | | | | 3 | | | | | | 3 | |
| MECH | 3630 | Electrical Technology | 3 | | | | | | 3 | | | | | 3 | |
| MECH | 3830 | Laboratory | 3 | | | | | | | 3 | | | | 3 | |
| MECH | 3907 | Mechatronic Design and Prototyping | 3 | | | | | | 3 | | | | | 3 | |
| MECH | 4900 | Final Year Design Project | 6 | | | | | | | | | 3 | 3 | 6 | |
| ELEC | 2420 | Basic Electronics | 3 | | | 3 | | | | | | | | 3 | |
| ENGG | 2010 | Engineering Seminar Series | 0 | | | 0 | 0 | 0 | 0 | | | | | 0 | |
| | | **Required credits for Major Requirements Courses and Electives** | 51 | | | | | | | | | | | 51 | |
| **BBA in Finance** | | | | | | | | | | | | | | | |
| **School Requirements** | | | | | | | | | | | | | | | |
| ACCT | 2010 | Principles of Accounting I | 3 | 3 | | | | | | | | | | 3 | |
| ACCT | 2200 | Principles of Accounting II | 3 | | | | | | 3 | | | | | 3 | |
| ECON | 2103 | Note: ECON 2103 OR ECON 2113 | 3 | | | 3 | | | | | | | | 3 | |
| ECON | 2113 | Principles of Microeconomics | 3 | | | | | | | | | | | | |
| | | Microeconomics | | | | | | | | | | | | | |
| ECON | 2123 | Note: ECON 2123 OR ECON 3123 | 3 | | | | | 3 | | | | | | 3 | |
| ECON | 3123 | Macroeconomics | 3 | | | | | | | | | | | | |
| | | Macroeconomic Theory I | | | | | | | | | | | | | |
| FINA | 2303 | Financial Management | 3 | | 3 | | | | | | | | | 3 | FINA 2303 is a major pre-requisite |
| 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 COMP 1021 or COMP 1029P |
| ISOM | 2500 | Business Statistics | 3 | 3 | | | | | | | | | | 3 | |
| ISOM | 2600 | Introduction to Business Analytics | 1 | | | | | 1 | | | | | | 1 | |
| 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 | |
| MATH | 1003 | Note: MATH 1003 OR MATH 1012 OR MATH 1013 OR MATH 1020 OR MATH 1023 | 3-4 | | | | | | | | | | | | 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 | 1012 | Calculus and Linear Algebra | 3 | (3) | | | | | | | | | | 0 | |
| MATH | 1013 | Calculus IA | 4 | | | | | | | | | | | | |
| MATH | 1020 | Calculus IB | 3 | | | | | | | | | | | | |
| MATH | 1023 | Accelerated Calculus | 4 | | | | | | | | | | | | |
| | | Honors Calculus I | 3 | | | | | | | | | | | | |
| | | **Required credits for School Requirements** | 39-40 | | | | | | | | | | | 32 | |
| **Major Requirements** | | | | | | | | | | | | | | | |
| **Major Required Courses and Electives** | | | | | | | | | | | | | | | |
| FINA | 3001 | Key Skills for Finance Professionals (A) | 1 | | | | | 1 | | | | | | 1 | |
| FINA | 3103 | Intermediate Investments | 3 | | | | | 3 | | | | | | 3 | |
| FINA | 3203 | Derivative Securities | 3 | | | | | | 3 | | | | | 3 | |
| FINA | 3303 | Intermediate Corporate Finance | 3 | | | | | | | 3 | | | | 3 | |
| FINA | 3810 | Bloomberg Market Concepts Certification | 0 | | | | | 0 | | | | | | 0 | |
| ACCT | 3010 | Note: (ACCT 3010 AND ACCT 3020) OR ACCT 3030 | 3-6 | | | | | | | | | | | | |
| ACCT | 3020 | Financial Accounting I | 3 | | | | | | | 3 | | | | 3 | |
| ACCT | 3030 | Financial Accounting II | 3 | | | | | | | | | | | | |
| | | Intermediate Financial Accounting for Non-Accounting Majors | 3 | | | | | | | | | | | | |
| ISOM | 3230 | Note: ISOM 3230 OR ISOM 3400 | 3 | | | | | | | | | | | | If DDP students took COMP 1021 in BEng requirement, they are required to enroll ISOM 3230. |
| ISOM | 3400 | Business Programming in VBA | 3 | | | | | | 3 | | | | | 3 | |
| | | Business Applications Development in Python | 3 | | | | | | | | | | | | |
| FINA | | FINA 3000-level or above Electives (Any 3 courses of the subject and level as specified) | 9 | | | | | | | | 3 | 3 | 3 | 9 | |
| | | **Required credits for Major Required Courses and Electives** | 25-28 | | | | | | | | | | | 25 | |
| **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 | | | | 6 | | | 6 | 3 | 6 | | 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** | 30 | | | | | | | | | | | 30 | |
| | | Term load (excl. free credits) | | 16 | 17 | 15 | 18 | 18 | 21 | 18 | 12 | 14 | 14 | | |
| | | | | | | | | | 163## | | | | | | |

<< Declaration of BEng major   << Declaration of BBA major

Notes:

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

\* Courses offered in winter term

^ Courses offered in summer term

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

## To graduate, students should complete all requirements as 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.