# The Hong Kong University of Science and Technology
## Interdisciplinary Programs Office
An Example on Student's Pathway (as of July 11, 2022)

**CVMGMT**  **2021-22 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 Civil and Environmental Engineering and BBA in Management) | | | | | | | | | | | | | | | |
| 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 Civil and Environmental Engineering
### Major Requirements
#### Engineering Fundamental Courses

| Dept | Code | Title | Credits | Y1F | Y1S | Y2F | Y2S | Y3F | Y3S | Y4F | Y4S | Y5F | Y5S | Sub | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Note: COMP1021 OR COMP1022P OR COMP2011 OR COMP2012H | 3-5 | | | | | | | | | | | | Students should take COMP1021 which will also be used to substitute ISOM 2010 and to waive ISOM 2020 |
| COMP | 1021 | Introduction to Computer Science | 3 | | | | | | | | | | | | |
| COMP | 1022P | Introduction to Computing with Java | 3 | | 3 | | | | | | | | | 3 | |
| COMP | 2011 | Programming with C++ | 4 | | | | | | | | | | | | |
| COMP | 2012H | Honors Object-Oriented Programming and Data Structures | 5 | | | | | | | | | | | | |
| ENGG | 1010 | Academic Orientation | 0 | 0 | 0 | | | | | | | | | 0 | |
| | | Note: CHEM 1010 OR CHEM 1020 | | | | | | | | | | | | | |
| CHEM | 1010 | General Chemistry IA | 3 | 3 | | | | | | | | | | 3 | |
| CHEM | 1020 | General Chemistry IB | 3 | | | | | | | | | | | | |
| LANG | 2030 | Technical Communication I | 3 | - | - | - | - | - | - | - | - | - | - | 0 | Waived for DDP students |
| | | 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 | | | | | | | | | | | | |
| MATH | 2011 | Introduction to Multivariable Calculus | 3 | | | 3 | | | | | | | | 3 | |
| MATH | 2350 | Applied Linear Algebra and Differential Equations | 3 | | | 3 | | | | | | | | 3 | |
| | | Note: PHYS 1112 OR PHYS 1312 | | | | | | | | | | | | | |
| PHYS | 1112 | General Physics I with Calculus | 3 | 3 | | | | | | | | | | 3 | |
| PHYS | 1312 | Honors General Physics I | 3 | | | | | | | | | | | | |
| | | **Required credits for Engineering Fundamental Courses** | 22-27 | | | | | | | | | | | 21 | |

#### Major Required Courses and Electives

| Dept | Code | Title | Credits | Y1F | Y1S | Y2F | Y2S | Y3F | Y3S | Y4F | Y4S | Y5F | Y5S | Sub | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CIVL | 1010 | Academic Professional Development I | 0 | | | 0 | 0 | | | | | | | 0 | |
| CIVL | 1100 | Discovering Civil and Environmental Engineering | 3 | | | 3 | | | | | | | | 3 | |
| CIVL | 2010 | Academic Professional Development II | 0 | | | | | 0 | 0 | | | | | 0 | |
| CIVL | 2020 | Industrial and BIM Training | 0 | | | 0* | 0 | | | | | | | 0 | |
| CIVL | 2110 | Statics | 3 | | | 3 | | | | | | | | 3 | |
| CIVL | 2120 | Mechanics of Materials | 3 | | | | 3 | | | | | | | 3 | |
| CIVL | 2160 | Modeling Systems with Uncertainties | 3 | | | 3 | | | | | | | | 3 | |
| CIVL | 2170 | Infrastructure Systems Engineering and Management | 3 | | | | 3 | | | | | | | 3 | |
| CIVL | 2410 | Environmental Assessment and Management | 3 | | | | 3 | | | | | | | 3 | |
| CIVL | 2510 | Fluid Mechanics | 3 | | | | 3 | | | | | | | 3 | |
| CIVL | 2810 | Construction Materials | 3 | | | | | 3 | | | | | | 3 | |
| CIVL | 3010 | Academic Professional Development III | 0 | | | | | | | 0 | 0 | | | 0 | |
| CIVL | 3020 | Internship Training | 0 | | | | | | | | 0^ | | | 0 | |
| | | Note: CIVL3210 OR CIVL3610 | | | | | | | | | | | | | |
| CIVL | 3210 | Introduction to Construction Management | 3 | | | | | | 3 | | | | | 3 | |
| CIVL | 3610 | Traffic and Transportation Engineering | 3 | | | | | | | | | | | | |
| CIVL | 3310 | Structural Analysis | 3 | | | | | 3 | | | | | | 3 | |
| CIVL | 3320 | Reinforced Concrete Design | 3 | | | | | | 3 | | | | | 3 | |
| CIVL | 3420 | Water and Wastewater Engineering | 3 | | | | | | 3 | | | | | 3 | |
| CIVL | 3510 | Hydrosystems Engineering | 3 | | | | | 3 | | | | | | 3 | |
| CIVL | 3730 | Fundamentals of Geotechnics | 3 | | | | | | | 3 | | | | 3 | |
| CIVL | 3740 | Geotechnical Analysis and Design | 3 | | | | | | | | 3 | | | 3 | |
| | | Note: CIVL 4910 OR CIVL 4920 (Students taking the Research Option must take CIVL 4920) | | | | | | | | | | | | | |
| CIVL | 4910 | Civil and Environmental Engineering Final Year Project | 6 | | | | | | | | | 3 | 3 | 6 | |
| CIVL | 4920 | Civil and Environmental Engineering Final Year Thesis | 6 | | | | | | | | | | | | |
| CIVL | 4950 | Civil Engineering Capstone Design Project | 3 | | | | | | | | | 3 | | 3 | |
| ENGG | 2010 | Engineering Seminar Series | 0 | | | 0 | 0 | 0 | 0 | | | | | 0 | |
| LANG | 4033 | Technical Communication II for Civil and Environmental Engineering | 3 | | | | | | | | | 3 | | 3 | |
| | | Note: CIVL4450 OR CIVL 5450 OR CIVL5460 | | | | | | | | | | | | | |
| CIVL | 4450 | Carbon Footprint Analysis and Reduction | 3 | | | | | | | | 3 | | | 3 | |
| CIVL | 5450 | Hazardous Waste Treatment and Site Remediation | 3 | | | | | | | | | | | | |
| CIVL | 5460 | Landfill Engineering and Design | 3 | | | | | | | | | | | | |
| CIVL/SENG | | CIVL (Environmental) Electives [2 courses from the specified elective list. At least 1 course (3 credits) should be selected from the "Restricted Electives"]. Restricted electives: at least 1 course AND (CIVL: Any CIVL courses at 4000-level or above except those listed as "Restricted Electives" from the list OR SENG: Any 3000-level or above courses offered by the Engineering School or engineering departments other than CIVL) | 6 | | | | | | | | | 3 | 3 | 6 | |
| | | **Required credits for Major Requirements Courses and Electives** | 66 | | | | | | | | | | | 66 | |

## BBA in Management
### School Requirements

| Dept | Code | Title | Credits | Y1F | Y1S | Y2F | Y2S | Y3F | Y3S | Y4F | Y4S | Y5F | Y5S | Sub | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 1022P |
| ISOM | 2500 | Business Statistics | 3 | — | — | — | — | — | — | — | — | — | — | 0 | Substituted by CIVL 2160 |
| 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 2110 is a major pre-requisite |
| MGMT | 2130 | Business Ethics and Social Responsibility | 2 | | | | | | | | 2 | | | 2 | |
| SBMT | 1111 | Business Student Induction | 0 | - | - | - | - | - | - | - | - | - | - | 0 | Waived for DDP students |
| LABU | 2040 | Business Case Analyses | 3 | - | - | - | - | - | - | - | - | - | - | 0 | Waived for DDP students |
| LABU | 2060 | Effective Communication in Business | 3 | | | | | | | | 3 | | | 3 | |
| | | 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 | 1003 | Calculus and Linear Algebra | 3 | | | | | | | | | | | | |
| MATH | 1012 | Calculus IA | 4 | (3) | | | | | | | | | | 0 | |
| MATH | 1013 | Calculus IB | 3 | | | | | | | | | | | | |
| MATH | 1020 | Accelerated Calculus | 4 | | | | | | | | | | | | |
| MATH | 1023 | Honors Calculus I | 3 | | | | | | | | | | | | |
| | | **Required credits for School Requirements** | 43-44 | | | | | | | | | | | 32 | |

### Major Requirements
#### Major Required Courses and Electives

| Dept | Code | Title | Credits | Y1F | Y1S | Y2F | Y2S | Y3F | Y3S | Y4F | Y4S | Y5F | Y5S | Sub | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Note: MGMT 3110 OR MGMT 3120 (For students in the Consulting Option, they will use MGMT 3110 to fulfill the Option Requirements and should take MGMT 3120 to fulfill this requirement.) | 4 | | | | | | | | | | | | Students in the Consulting Option must take MGMT 3120 |
| MGMT | 3110 | Human Resources Management | 4 | | | | | | 4 | | | | | 4 | |
| MGMT | 3120 | Managerial Leadership | 4 | | | | | | | | | | | | |
| | | Note: MGMT 3130 OR MGMT 3140 (Students in the Consulting Option must take MGMT 3140 to fulfill this requirement.) | 4 | | | | | | | | | | | | Students in the Consulting Option must take MGMT 3140 |
| MGMT | 3130 | Judgement and Decision Making in Organizations | 4 | | | | | | 4 | | | | | 4 | |
| MGMT | 3140 | Negotiation | 4 | | | | | | | | | | | | |
| | | Note: MGMT 4210 OR MGMT 4220 (Students in the Consulting Option or in the Corporate Social Responsibility and Sustainability Option must take MGMT 4210 to fulfill this requirement.) | 3-4 | | | | | | | | | | | | Students in the Consulting Option must take MGMT 4210. Students in the CSR Option must take MGMT 4210 |
| MGMT | 4210 | Corporate Strategy | 3 | | | | | | | | 3 | | | 3 | |
| MGMT | 4220 | Entrepreneurship and Innovation | 4 | | | | | | | | | | | | |
| MGMT | | MGMT 3000-level or above Electives (Any 3 courses of the subject and level as specified. Courses taken as Option Required Courses may not be counted towards the elective requirement.) | 9 | | | | | | | | 3 | 3 | 3 | 9 | Students in the Consulting Option are recommended to take MGMT 4220 and a new course in Simulating Strategy to fulfill the major elective requirement |
| | | **Required credits for Major Required Courses and Electives** | 20-21 | | | | | | | | | | | 20 | |

## Additional Requirements
### Requirements for Dual Degree Program
#### Required Courses

| Dept | Code | Title | Credits | Y1F | Y1S | Y2F | Y2S | Y3F | Y3S | Y4F | Y4S | Y5F | Y5S | Sub | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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

| Dept | Code | Title | Credits | Y1F | Y1S | Y2F | Y2S | Y3F | Y3S | Y4F | Y4S | Y5F | Y5S | Sub | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CORE | C3 - C12 | U CORE - Others | 30 | | 6 | | | | | 6 | 6 | 3 | 9 | 30 | |
| CORE | C1 & C2 | U CORE - English Language | 6 | 3 | 3 | | | | | | | | | 6 | |
| | | **Sub-total for University CORE** | 36 | | | | | | | | | | | 36 | |

| | | | Term load (excl. free credits) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 15 | 18 | 20 | 19 | 20 | 20 | 19 | 18 | 17 | 18 | 15 | |
| | | | | | | | | | 182## | | | | | | |

|<< 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.