

Curriculum for BEng in Civil and Structural Engineering and BBA in General Business Management (CIGBM)

Major Program Requirements

Core courses

| | | | |
|-------|-------------|--|------------|
| | CIVL 001 | Academic and Professional Development I | [0-1-0:0] |
| | CIVL 002 | Academic and Professional Development II | [0-1-0:0] |
| | CIVL 003 | Academic and Professional Development III | [0-1-0:0] |
| | CIVL 101 | History and Practice of Civil Engineering | [1-0-0:1] |
| | CIVL 111 | Construction Materials | [2-1-3:3] |
| | CIVL 112 | Mechanics of Materials | [3-1-0:3] |
| | CIVL 113 | Statics and Dynamics | [3-1-0:3] |
| | CIVL 141 | Environmental Engineering and Management | [3-1-0:3] |
| | CIVL 151 | Fluid Mechanics | [3-1-2:3] |
| | CIVL 181 | Modeling Systems with Uncertainties | [3-1-0:3] |
| | CIVL 231 | Structural Analysis | [3-1-1:3] |
| | CIVL 232 | Structural Concrete Design | [3-1-1:3] |
| | CIVL 252 | Hydraulics | [3-2-1:3] |
| | CIVL 253 | Hydrology | [3-1-0:3] |
| | CIVL 270 | Geology for Civil Engineers | [3-0-3:3] |
| | CIVL 272 | Soil Mechanics | [3-1-1:3] |
| | CIVL 334 | Structural Steel Design | [3-2-0:3] |
| | CIVL 372 | Geotechnical Analysis and Design | [3-1-0:3] |
| | CIVL 395 | Integrated Civil Engineering Design Project | [2-1-0:2] |
| | CIVL 397 | Civil Engineering Project I | [0-0-6:2] |
| | CIVL 398 | Civil Engineering Project II | [0-0-12:4] |
| | ACCT 101 | Introduction to Accounting for Business Majors | [4-0-0:4] |
| (1) [| ECON 110 | Introductory Microeconomics | [3-1-0:4] |
| | or ECON 111 | Microeconomics | [3-1-0:4] |
| | or ECON 191 | Honors Microeconomics | [3-1-0:4] |
| | FINA 111 | Financial Management | [3-1-0:3] |
| | IELM 311 | Engineers in Society | [1-0-0:1] |
| | ISOM 161 | Operations Management | [3-0-0:3] |
| | MARK 112 | Marketing Management | [3-0-0:3] |
| (2) | MATH 021 | Concise Calculus | [3-1-0:4] |
| | MGTO 121 | Organizational Behavior | [3-1-0:3] |

Required courses

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| (3) | CIVL 098 | Internship Training | [0 credit] |
| (4) | CIVL 099 | Industrial Training | [0 credit] |
| | CIVL 102 | Surveying and Surveying Camp | [2-0-3:2] |
| | CIVL 114 | Civil Engineering Drawing | [0-0-3:1] |
| | CIVL 202 | Construction Engineering I | [2-1-0:2] |
| | CIVL 242 | Water and Wastewater Engineering | [3-1-0:3] |
| | CIVL 261 | Traffic and Transportation Engineering | [3-1-0:3] |
| | CIVL 303 | Construction Engineering II | [2-1-0:2] |
| | COMP 102 | Computer and Programming Fundamentals I | [3-0-2:3] |
| | IELM 202 | Introduction to Operations Research | [2-1-0:2] |

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| (5) | LANG 111 | Chinese Business Communication I | [0-3-0:3] |
| | MATH 100 | Introduction to Multivariable Calculus | [2-1-0:2] |
| | MATH 152 | Applied Linear Algebra and Differential Equations | [4-1-0:4] |
| | MATH 230 | Introduction to Numerical Methods | [2-1-0:2] |
| | MGTO 222 | Business, Society and the Individual | [1-0-0:1] |

Elective courses

| | Elective types | | Minimum no. of courses | Minimum total credits |
|-----|----------------|----------------------------------|---------------------------|--------------------------|
| (6) | ENGG | Engineering Elective | 3 | 9 |
| (7) | SB&M | Business and Management Elective | 6 | 20 |

General Education Requirements

Electives must be selected from amongst those general education courses that are listed under the section “Designated General Education Courses for Undergraduate Students”.

| | Elective types | | Minimum no. of courses | Minimum total credits |
|-----|----------------|---|---------------------------|--------------------------|
| | GEE(SCIE) | Science General Education Elective | 1 | 3 |
| (8) | GEE(H&SS) | Humanities and Social Science General Education Elective | 4 | 12 |

Required Courses in English Communication

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|--|----------|--|-----------|
| | LABU 101 | Business Case Analyses | [0-3-0:4] |
| | LANG 201 | Business Communication | [0-3-0:3] |
| | LANG 307 | Communication for International Management | [0-2-0:2] |

Other Requirements

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| (9) | HLTH 001 | Healthy Life Style | [0 credit] |
| | TEMG 001 | Technology and Management Professional Activities | [0 credit] |

Notes:

- (1) Students entering with AL Economics take ECON 111; however, those with grade B or above in HKAL Economics will take ECON 191. All other students without AL Economics background, including those entering with AL Business and Economics, take ECON 110.
- (2) Students who have grade E or better in AL Pure Mathematics or in AL Applied Mathematics are not required to take MATH 021.
- (3) Students are required to complete and pass the internship training in the summer of their third year of study.
- (4) 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 Semester. Training normally takes place in the Winter and Summer Sessions starting from the first year of study.
- (5) Students cannot replace this course by LANG 014/015 for graduation purposes. Students recruited from Mainland China will replace this course by a free elective. For international students who are assessed as having inadequate Chinese background to take LANG 111, they will replace this course by LANG 113.
- (6) ENGG 351 and ENGG 395 can be used to count toward the ENGG elective requirement.

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- (7) ISOM 101 and ISOM 111 cannot be used to count toward the SBM elective requirement. Of these 20 credits, at least 6 credits must be at 300-level or above and at least 6 credits must be at 200-level or above.
- (8) Of these courses, at least one course in Humanities and one in Social Science are required. SOSC 111 is a recommended elective.
- (9) Students are required to take and pass this course in their first year of study. Details of the course and its requirements are announced on the course website <http://www.ab.ust.hk/sao/HLTH001> managed by the Student Affairs Office.

A minimum of 155 credits is required for the BEng program in Civil and Structural Engineering and BBA program in General Business Management. For students who are required to take MATH 021, the minimum total required is 159 credits.

Recommended Pattern of Study for BEng in Civil and Structural Engineering and BBA in General Business Management

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|----------|--------|---|---------------------------------------|
| 1st year | Fall | C CIVL 101, CIVL 113, MATH 021 [^] , MGTO 121 R COMP 102, HLTH 001, LABU 101 TEMG 001 E GEE(H&SS), GEE(SCIE) | (Total: 16 / 20 [^] credits) |
| | Spring | C CIVL 001, CIVL 111, CIVL 112, CIVL 141, ISOM 161, ECON 110/111/191 R HLTH 001, LABU 101, TEMG 001 | (Total: 20* credits) |
| | Summer | R CIVL 099 | |
| 2nd year | Fall | C CIVL 231, ACCT 101 R CIVL 102, CIVL 114, MATH 100, MATH 152, MGTO 222, TEMG 001 E GEE(H&SS) | (Total: 20 credits) |
| | Spring | C CIVL 002, CIVL 151, CIVL 181, FINA 111, MARK 112 R CIVL 261, LANG 201, MATH 230, TEMG 001 | (Total: 20 credits) |
| | Summer | R CIVL 099 | |
| 3rd year | Fall | C CIVL 253, CIVL 270 R CIVL 242, IELM 202, LANG 111/LANG 113/FREE, TEMG 001 E two SB&M | (Total: 20 credits) |
| | Spring | C CIVL 003, CIVL 232, CIVL 252, CIVL 272, IELM 311 R CIVL 202, TEMG 001 E two SB&M | (Total: 18 credits) |
| | Summer | R CIVL 099 | |
| 4th year | Fall | C CIVL 334, CIVL 372, CIVL 397 R CIVL 303, TEMG 001 E ENGG, GEE(H&SS), SB&M | (Total: 20 credits) |

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|--------|---|---------------------------|---------------------|
| Spring | C | CIVL 395, CIVL 398 | |
| | R | LANG 307, TEMG 001 | |
| | E | two ENGG, GEE(H&SS), SB&M | (Total: 21 credits) |

[^] Students who have grade E or better in AL Pure Mathematics or in AL Applied Mathematics are not required to take MATH 021.

* LABU 101 is a two-semester course. The course credits will be earned on completion of the course at the end of the 1st year Spring.

C = core course; R = required course; E = elective course

Recommended Pattern of Study for BEng in Civil and Structural Engineering and BBA in General Business Management Students Entering the Preparatory Year

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| Prep year | | As listed on p. 164-165 | |
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|----------|--------|--|----------------------|
| 1st year | Fall | C CIVL 101, CIVL 113, MGTO 121 R COMP 102, LABU 101, TEMG 001 E GEE(H&SS), GEE(SCIE) | (Total: 16 credits) |
| | Spring | C CIVL 001, CIVL 111, CIVL 112, CIVL 141, ISOM 161 R LABU 101, TEMG 001 E GEE(H&SS) | (Total: 19* credits) |
| | Summer | R CIVL 099 | |

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|----------|--------|--|---------------------|
| 2nd year | Fall | C CIVL 231, ACCT 101 R CIVL 102, CIVL 114, MATH 100, MATH 152, MGTO 222, TEMG 001 E GEE(H&SS) | (Total: 20 credits) |
| | Spring | C CIVL 002, CIVL 151, CIVL 181, FINA 111, MARK 112 R CIVL 261, LANG 201, MATH 230, TEMG 001 | (Total: 20 credits) |

| | | | |
|----------|--------|---|---------------------|
| 3rd year | Fall | C CIVL 253, CIVL 270 R CIVL 242, IELM 202, LANG 111/LANG 113/FREE, TEMG 001 E two SB&M | (Total: 20 credits) |
| | Spring | C CIVL 003, CIVL 232, CIVL 252, CIVL 272, IELM 311 R CIVL 202, TEMG 001 E two SB&M | (Total: 18 credits) |
| | Summer | R CIVL 098 | |

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|----------|------|---|---------------------|
| 4th year | Fall | C CIVL 334, CIVL 372, CIVL 397 R CIVL 303, TEMG 001 E ENGG, SB&M, Business Breadth Elective | (Total: 20 credits) |
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Spring C CIVL 395, CIVL 398
R LANG 307, TEMG 001
E two ENGG, SB&M, Business Breadth Elective (Total: 21 credits)

* *LABU 101 is a two-semester course. The course credits will be earned on completion of the course at the end of the 1st year Spring.*

C = core course; R = required course; E = elective course