

||<< Declaration of major

| <b>School:</b>                             |             | <b>School of Engineering and School of Business Management</b>                                |         |             | <b>Student's Pathway</b> |             |               |             |               |             |               |             |               |           |
|--|-------------|---|---------|-------------|--------------------------|-------------|---------------|-------------|---------------|-------------|---------------|-------------|---------------|-----------|
| <b>Program:</b>                            |             | <b>Dual Degree Program (BEng in Civil Engineering and BBA in General Business Management)</b> |         |             |                          |             |               |             |               |             |               |             |               |           |
| 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 Civil Engineering**

**Major Requirements**

Engineering Fundamental Courses

|   |       |  |       |   |   |  |   |  |   |   |  |  |  |    |
|---|-------|--|-------|---|---|--|---|--|---|---|--|--|--|----|
| COMP  | 1021  | Note: COMP 1021 OR COMP 1022P OR COMP 1022Q OR COMP 2011<br>Introduction to Computer Science | 3-4   |   |   |  |   |  |   |   |  |  |  |    |
| COMP  | 1022P | Introduction to Computing with Java  | 3     |   |   |  |   |  |   |   |  |  |  |    |
| COMP  | 1022Q | Introduction to Computing with Excel VBA   | 3     |   |   |  |   |  |   |   |  |  |  |    |
| COMP  | 2011  | Programming with C++   | 4     |   |   |  |   |  |   |   |  |  |  |    |
| ENGG  | 1010  | Academic Orientation   | 0     | 0 | 0 |  |   |  |   |   |  |  |  | 0  |
| CHEM  | 1010  | Note: CHEM 1010 OR CHEM 1020<br>General Chemistry IA   | 3     | 3 |   |  |   |  |   |   |  |  |  | 3  |
| CHEM  | 1020  | General Chemistry IB   | 3     |   |   |  |   |  |   |   |  |  |  | 3  |
| LANG  | 2030  | Technical Communication I  | 3     |   |   |  |   |  |   | 3 |  |  |  | 3  |
| 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     |   |   |  |   |  |   |   |  |  |  |    |
| MATH  | 1014  | Calculus IB  | 3     |   |   |  |   |  |   |   |  |  |  |    |
| MATH  | 1020  | Accelerated Calculus   | 4     | 3 | 3 |  |   |  |   |   |  |  |  | 6  |
| 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  |
| PHYS  | 1112  | Note: PHYS 1112 OR PHYS 1312<br>General Physics I with Calculus I                            | 3     | 3 |   |  |   |  |   |   |  |  |  | 3  |
| PHYS  | 1312  | Honors General Physics I   | 3     |   |   |  |   |  |   |   |  |  |  | 3  |
| <b>Required credits for Engineering Fundamental Courses</b> |       |  | 22-26 |   |   |  |   |  |   |   |  |  |  | 24 |

Major Required Courses and Electives

|  |      |  |    |  |  |    |   |   |   |    |   |   |   |    |   |
|--|------|--|----|--|--|----|---|---|---|----|---|---|---|----|---|
| 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 |
| 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 |
| CIVL   | 3210 | Introduction to Construction Management  | 3  |  |  |    |   |   |   | 3  |   |   |   |    | 3 |
| CIVL   | 3310 | Structural Analysis  | 3  |  |  |    |   | 3 |   |    |   |   |   |    | 3 |
| CIVL   | 3320 | Reinforced Concrete Design   | 3  |  |  |    |   |   |   | 3  |   |   |   |    | 3 |
| CIVL   | 3510 | Hydrosystems Engineering   | 3  |  |  |    |   | 3 |   |    |   |   |   |    | 3 |
| CIVL   | 3610 | Traffic and Transportation Engineering   | 3  |  |  |    |   |   |   | 3  |   |   |   |    | 3 |
| CIVL   | 3730 | Fundamentals of Geotechnics  | 3  |  |  |    |   |   |   | 3  |   |   |   |    | 3 |
| CIVL   | 3740 | Geotechnical Analysis and Design   | 3  |  |  |    |   |   |   |    | 3 |   |   |    | 3 |
| CIVL   | 4910 | Note: CIVL 4910 OR CIVL 4920<br>Civil and Environmental Engineering Final Year Project                             | 6  |  |  |    |   |   |   |    |   | 3 | 3 |    | 6 |
| CIVL   | 4920 | Civil and Environmental Engineering Final Year Thesis  | 6  |  |  |    |   |   |   |    |   |   |   |    | 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 |
| CIVL/SENG  |      | CIVL Electives (3 courses from the specified elective list)  | 9  |  |  |    |   |   |   |    |   | 3 | 3 | 3  | 9 |
| CIVL   |      | CIVL: Any 3000-level or above courses offered by the Engineering School or engineering departments other than CIVL |    |  |  |    |   |   |   |    |   |   |   |    |   |
| SENG   |      | SENG: Any 3000-level or above courses offered by the Engineering School or engineering departments other than CIVL |    |  |  |    |   |   |   |    |   |   |   |    |   |
| <b>Required credits for Major Requirements Courses and Electives</b> |      |  | 66 |  |  |    |   |   |   |    |   |   |   | 66 |   |

**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 |
| ECON  | 2103 | Note: ECON 2103 OR ECON 2113<br>Principles of Microeconomics        | 3     |     |     |     |     | 3   |     |     |     |     |     |     | 3 |
| ECON  | 2113 | Microeconomics  | 3     |     |     |     |     |     |     |     |     |     |     |     |   |
| ECON  | 2123 | Note: ECON 2123 OR ECON 3123<br>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 |
| ISOM  | 2020 | Coding for Business   | 1     |     |     |     |     | 1   |     |     |     |     |     |     | 1 |
| ISOM  | 2500 | Business Statistics   | 3     | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 0 |
| 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 |
| SBMT  | 1111 | Business Student Induction  | 0     | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 0 |
| LABU  | 2040 | Business Case Analyses  | 3     |     |     |     |     |     |     |     |     |     | 3   |     | 3 |
| LABU  | 2060 | Effective Communication in Business                                 | 3     |     |     |     |     |     |     |     | 3   |     |     |     | 3 |
| MATH  | 1003 | Note: MATH 1003 OR MATH 1012 OR MATH 1013 OR MATH 1020 OR MATH 1023 | 3-4   |     |     |     |     |     |     |     |     |     |     |     |   |
| MATH  | 1012 | Calculus and Linear Algebra   | 3     |     |     |     |     |     |     |     |     |     |     |     |   |
| MATH  | 1013 | Calculus IA   | 4     |     |     |     |     |     |     |     |     |     |     |     |   |
| MATH  | 1014 | Calculus IB   | 3     |     |     |     |     |     |     |     |     |     |     |     |   |
| MATH  | 1020 | Accelerated Calculus  | 4     |     |     |     |     |     |     |     |     |     |     |     |   |
| MATH  | 1023 | Honors Calculus I   | 3     |     |     |     |     |     |     |     |     |     |     |     |   |
| <b>Required credits for School Requirements</b> |      |   | 43-44 |     |     |     |     |     |     |     |     |     |     | 36  |   |

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 |  |  |  |  | 3 | 6 | 7  | 7 | 29 |
| <b>Required credits for Major Required Courses and Electives</b> |  |   | 29 |  |  |   |   |  |  |  |  |   |   | 29 |   |    |

Additional Requirements

Requirements for Dual Degree Program

Required Courses

|   |      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TEMG  | 1010 | Technology and Management Professional Activities | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TEMG  | 3950 | Case-based Problem Solving                        | 2 |   |   | 2 |   |   |   |   |   |   |   |   | 2 |
| <b>Required credits for Additional Requirements</b> |      |   | 2 |   |   |   |   |   |   |   |   |   |   | 2 |   |

University CORE

|                                      |          |                           |    |    |    |    |    |    |    |    |   |   |  |    |    |
|--------------------------------------|----------|---------------------------|----|----|----|----|----|----|----|----|---|---|--|----|----|
| CORE                                 | C3 - C12 | U CORE - Others           | 30 | 6  | 3  |    |    |    |    | 3  | 9 | 6 |  | 3  | 30 |
| CORE                                 | C1 & C2  | U CORE - English Language | 6  | 3  | 3  |    |    |    |    |    |   |   |  |    | 6  |
| <b>Sub-total for University CORE</b> |          |                           | 36 |    |    |    |    |    |    |    |   |   |  | 36 |    |
| Term load (excl. free credits)       |          |                           |    |    |    |    |    |    |    |    |   |   |  |    |    |
|                                      | 18       | 20                        | 18 | 20 | 20 | 21 | 18 | 20 | 19 | 19 |   |   |  |    |    |
| 193##                                |          |                           |    |    |    |    |    |    |    |    |   |   |  |    |    |

||<< Declaration of 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.