

<< Declaration of
BEng major

<< Declaration of
BBA major

| School: | | School of Engineering and School of Business Management | | | Student's Pathway | | | | | | | | | | | Remarks |
|--|-------------|---|---------|-----|-------------------|---------------|-------------|---------------|-------------|---------------|-------------|---------------|-------------|---------------|-----------|--|
| Program: | | Dual Degree Program (BEng in Chemical Engineering and BBA in General Business Management) | | | 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 | |
| Course Offering Dept. (course code prefix) | Course Code | Course Title / Courses List | Credits | | | | | | | | | | | | | |
| BEng in Chemical Engineering | | | | | | | | | | | | | | | | |
| Major Requirements | | | | | | | | | | | | | | | | |
| Engineering Fundamental Courses | | | | | | | | | | | | | | | | |
| COMP | 1021 | Note: COMP1021 OR COMP1022P OR COMP2011 OR COMP2012H Introduction to Computer Science | 3-5 | | | | | | | | | | | | | |
| 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 | 2011 | Programming with C++ | 4 | | | | | | | | | | | | | |
| COMP | 2012H | Honors Object-Oriented Programming and Data Structures | 5 | | | | | | | | | | | | | |
| ENGG | 1010 | Academic Orientation | 0 | 0 | 0 | | | | | | | | | | 0 | |
| CHEM | 1010 | Note: CHEM1010 OR CHEM1020 General Chemistry IA | 3 | 3 | | | | | | | | | | | 3 | |
| CHEM | 1020 | General Chemistry IB | 3 | | | | | | | | | | | | | |
| LANG | 2030 | Technical Communication I | 3 | - | - | - | - | - | - | - | - | - | - | - | 0 | Waived for DDP students |
| MATH | 1012 | Note: [(MATH 1012 OR MATH 1013 OR MATH 1023) AND (MATH 1014 OR MATH 1024)] OR [MATH 1020] Calculus IA | 4-7 | | | | | | | | | | | | | |
| MATH | 1013 | Calculus IB | 3 | | | | | | | | | | | | | |
| MATH | 1014 | Calculus II | 3 | 3 | 3 | | | | | | | | | | 6 | |
| 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 | |
| PHYS | 1112 | Note: PHYS 1112 OR PHYS 1312 General Physics I with Calculus | 3 | | 3 | | | | | | | | | | 3 | |
| PHYS | 1312 | Honors General Physics I | 3 | | | | | | | | | | | | | |
| Required credits for Engineering Fundamental Courses | | | 19-24 | | | | | | | | | | | | 18 | |
| Major Required Courses and Electives | | | | | | | | | | | | | | | | |
| CENG | 1000 | Note: CENG1000 OR CENG1500 Introduction to Chemical and Biological Engineering | 3 | 3 | | | | | | | | | | | 3 | |
| CENG | 1500 | A First Course on Materials Science and Applications | 3 | | | | | | | | | | | | | |
| CENG | 1600 | Note: CENG1600 OR CENG1700 OR BIEN1010 Biotechnology and Its Business Opportunities | 3 | | 3 | | | | | | | | | | 3 | |
| CENG | 1700 | Introduction to Environmental Engineering | 3 | | | | | | | | | | | | | |
| BIEN | 1010 | Introduction to Biomedical Engineering | 3 | | | | | | | | | | | | | |
| CENG | 1010 | Academic and Professional Development I | 0 | | | 0 | | | | | | | | | 0 | |
| CENG | 1980 | Industrial Training | 0 | | | | | | | | | | 0 | | 0 | |
| CENG | 2110 | Process and Product Design Principles | 3 | | | 3 | | | | | | | | | 3 | |
| CENG | 2210 | Chemical and Biological Engineering Thermodynamics | 3 | | | | 3 | | | | | | | | 3 | |
| CENG | 2220 | Transport Phenomena I | 3 | | | | 3 | | | | | | | | 3 | |
| CENG | 2310 | Modeling for Chemical and Biological Engineering | 3 | | | | 3 | | | | | | | | 3 | |
| CENG | 3110 | Process Dynamics and Control | 3 | | | | | | 3 | | | | | | 3 | |
| CENG | 3150 | Integrated Chemical Process & Product Design | 5 | | | | | | 5 | | | | | | 5 | |
| CENG | 3210 | Separation Processes | 3 | | | | | | 3 | | | | | | 3 | |
| CENG | 3220 | Heat and Mass Transfer | 3 | | | | | | 3 | | | | | | 3 | |
| CENG | 3230 | Chemical and Biological Reaction Engineering | 3 | | | | | | 3 | | | | | | 3 | |
| CENG | 3950 | Chemical and Environment Engineering Laboratory | 4 | | | | | | | | | 4 | | | 4 | |
| CENG | 4020 | Academic and Professional Development II | 0 | | | | | | | | | | 0 | | 0 | |
| CENG | 4920 | Note: CENG 4920 OR CENG 4930 OR CENG 4940 (Students 6 taking the Research Option must take CENG 4930) Chemical Engineering Capstone Design | 6 | | | | | | | | | | 3 | 3 | 6 | |
| CENG | 4930 | Chemical Engineering Thesis Research | 6 | | | | | | | | | | | | | |
| CENG | 4940 | Chemical Engineering Industrial Project | 6 | | | | | | | | | | | | | |
| ENGG | 2010 | Engineering Seminar Series | 0 | | | 0 | 0 | 0 | 0 | | | | | | 0 | |
| CHEM | 1050 | Laboratory for General Chemistry I | 1 | | 1 | | | | | | | | | | 1 | |
| CHEM | 2111 | Fundamentals of Organic Chemistry | 3 | | | | | 3 | | | | | | | 3 | |
| CHEM | 2155 | Fundamental Organic Chemistry Laboratory | 1 | | | | | 1 | | | | | | | 1 | |
| LANG | 4035 | Technical Communication II for Chemical and Biological Engineering | 3 | | | | | | | | | | 3 | | 3 | |
| BIEN | 2410 | Note: BIEN2410 OR BIEN2610 OR LIFS1901 Cellular and Systems Physiology for Engineers | 3 | | | | | | | | | | | | | |
| BIEN | 2610 | Chemical Biology for Engineers | 3 | | | | | | | | | | | | | |
| LIFS | 1901 | General Biology I | 3 | | | | | | | | | | | | | |
| SENG/SSCI/ENVR | | CENG Elective (12 credits from specified elective list) | 12 | | | | | | 3 | 3 | 3 | 3 | | | 12 | |
| Required credits for Major Requirements Courses and Electives | | | 68 | | | | | | | | | | | | 68 | |
| 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 Principles of Microeconomics | 3 | | | 3 | | | | | | | | | 3 | |
| ECON | 2113 | Microeconomics | 3 | | | | | | | | | | | | | |
| ECON | 2123 | Note: ECON 2123 OR ECON 3123 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 | | | 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 | Waived for DDP students |
| LABU | 2040 | Business Case Analyses | 3 | - | - | - | - | - | - | - | - | - | - | - | 0 | Waived for DDP students |
| 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 Calculus and Linear Algebra | 3-4 | | | | | | | | | | | | | |
| MATH | 1012 | Calculus IA | 4 | | | | | | | | | | | | | |
| MATH | 1013 | Calculus IB | 3 | (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 | 1020 | Accelerated Calculus | 4 | | | | | | | | | | | | | |
| MATH | 1023 | Honors Calculus I | 3 | | | | | | | | | | | | | |
| Required credits for School Requirements | | | 45-46 | | | | | | | | | | | | 35 | |
| 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 | | | | | | 4 | 3 | 6 | 7 | 6 | 3 | 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 | 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 - C12 | U CORE - Others | 30 | 3 | 3 | | | | 3 | 3 | 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) | | | | | | | | | | | | | | | | |
| 18 19 19 19 19 20 19 20 20 20 | | | | | | | | | | | | | | | | |
| 193## | | | | | | | | | | | | | | | | |

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.