

<< 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) | | | | | | | | | | | | | | | |
| 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 Chemical Engineering | | | | | | | | | | | | | | | | | |
| Major Requirements | | | | | | | | | | | | | | | | | |
| Engineering Fundamental Courses | | | | | | | | | | | | | | | | | |
| COMP | 1021 | 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 | | | | | | | | | | | | | | |
| CHEM | 1020 | General Chemistry I | 3 | 3 | | | | | | | | | | 3 | | | |
| LANG | 2030 | Technical Communication I | 3 | | | | | | | | | | | 0 | Waived for DDP students | | |
| MATH | 1012 | Calculus IA | 4 | | | | | | | | | | | | | | |
| 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 | 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 | Introduction to Chemical and Biological Engineering | 3 | 3 | | | | | | | | | | 3 | | | |
| CENG | 1500 | A First Course on Materials Science and Applications | 3 | | | | | | | | | | | | | | |
| CENG | 1600 | 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 | 3330 | Data Science for Molecular 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 | 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 | Cellular and Systems Physiology for Engineers | 3 | | | | 3 | | | | | | | 3 | | | |
| BIEN | 2610 | Chemical Biology for Engineers | 3 | | | | | | | | | | | | | | |
| LIFS | 1901 | General Biology I | 3 | | | | | | | | | | | | | | |
| CENG/CHEM | | CENG Elective (9 credits from specified elective list) | 9 | | | 3 | | 3 | 3 | | | | | 9 | | | |
| 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 | Principles of Microeconomics | 3 | | | 3 | | | | | | | | 3 | | | |
| ECON | 2113 | Microeconomics | 3 | | | | | | | | | | | | | | |
| 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 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 | | | |
| LANG | 2061 | Professional Writing for the Workplace | 3 | | | | | | | | | 3 | | 3 | Non DDP-ECON students take ONLY a 3-credit of SBM-specific English course, in which they can choose from one of the three LANG courses (LANG 2061, LANG 2062, or LANG 3060). | | |
| LANG | 2062 | Professional Speaking for the Workplace | 3 | | | | | | | | | | | | | | |
| LANG | 3060 | Advanced Academic Writing | 3 | | | | | | | | | | | | | | |
| MATH | 1003 | Calculus and Linear Algebra | 3-4 | | | | | | | | | | | | | | |
| MATH | 1012 | Calculus IA | 4 | | | | | | | | | | | | | | |
| MATH | 1013 | Calculus IB | 3 | | | | | | | | | | | | | | |
| MATH | 1020 | Accelerated Calculus | 4 | | | | | | | | | | | | | | |
| MATH | 1023 | Honors Calculus I | 3 | | | | | | | | | | | | | | |
| Required credits for School Requirements | | | 45-46 | | | | | | | | | | | 35 | 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 | | |
| 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 | 4 | 4 | 6 | 6 | 6 | 29 | | | |
| Required credits for Major Requirements 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 | | | |
| 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 | | | 3 | | | | 6 | 6 | | 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) | | | | | | | | | | | | | | | | | |
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| 187## | | | | | | | | | | | | | | | | | |

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.