

| School:                                                                             |             | School of Engineering and School of Business Management                                            |         | << Declaration of BEng major >><< Declaration of BBA major >> |                                |             |               |             |               |             |               |             |               |             |               | Student's Pathway |                                                                                                                                                                                          |
|-------------------------------------------------------------------------------------|-------------|----------------------------------------------------------------------------------------------------|---------|---------------------------------------------------------------|--------------------------------|-------------|---------------|-------------|---------------|-------------|---------------|-------------|---------------|-------------|---------------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Program:                                                                            |             | Dual Degree Program (BEng in Industrial Engineering and Engineering Management and BBA in Finance) |         |                                                               |                                |             |               |             |               |             |               |             |               |             |               |                   |                                                                                                                                                                                          |
| 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 | Year 6 Fall | Year 6 Spring | Sub-total         | Remarks                                                                                                                                                                                  |
| <b>BEng in Industrial Engineering and Engineering Management</b>                    |             |                                                                                                    |         |                                                               |                                |             |               |             |               |             |               |             |               |             |               |                   |                                                                                                                                                                                          |
| <b>Engineering Fundamental Courses</b>                                              |             |                                                                                                    |         |                                                               |                                |             |               |             |               |             |               |             |               |             |               |                   |                                                                                                                                                                                          |
| COMP                                                                                | 1023        | Note: COMP1023 OR COMP2011 OR COMP2012H                                                            | 3.6     |                                                               |                                |             |               |             |               |             |               |             |               |             |               |                   |                                                                                                                                                                                          |
| COMP                                                                                | 2011        | Introduction to Python Programming                                                                 | 3       | 3                                                             |                                |             |               |             |               |             |               |             |               |             |               | 3                 | Students should take COMP 1023, COMP 2011 or COMP 2012H which will also be used to substitute ISOM 2010 and to waive ISOM 2020                                                           |
| COMP                                                                                | 2012H       | Honors Object-Oriented Programming and Data Structures                                             | 5       |                                                               |                                |             |               |             |               |             |               |             |               |             |               |                   |                                                                                                                                                                                          |
| CHEM                                                                                | 1012        | Note: CHEM1012 OR PHYS1112 OR PHYS1312                                                             | 3       |                                                               |                                |             |               |             |               |             |               |             |               |             |               |                   |                                                                                                                                                                                          |
| PHYS                                                                                | 1112        | General Chemistry B: Atomic Structure, Molecules, and Bonding Theories                             | 3       | 3                                                             |                                |             |               |             |               |             |               |             |               |             |               | 3                 |                                                                                                                                                                                          |
| PHYS                                                                                | 1312        | Honors General Physics I                                                                           | 3       |                                                               |                                |             |               |             |               |             |               |             |               |             |               |                   |                                                                                                                                                                                          |
| MATH                                                                                | 1013        | Note: [MATH 1013 OR MATH 1023] AND [MATH 1014 OR MATH 1024] OR [MATH 1020]                         | 4.6     |                                                               |                                |             |               |             |               |             |               |             |               |             |               |                   |                                                                                                                                                                                          |
| MATH                                                                                | 1014        | Calculus I                                                                                         | 3       |                                                               |                                |             |               |             |               |             |               |             |               |             |               |                   |                                                                                                                                                                                          |
| MATH                                                                                | 1020        | Accelerated Calculus                                                                               | 3       | 3                                                             | 3                              |             |               |             |               |             |               |             |               |             |               | 6                 | DDP students should take MATH 1013 or MATH 1020 or MATH 1023 to satisfy the requirements of both BEng and BBA degrees                                                                    |
| MATH                                                                                | 1023        | Honors Calculus I                                                                                  | 3       |                                                               |                                |             |               |             |               |             |               |             |               |             |               |                   |                                                                                                                                                                                          |
| MATH                                                                                | 1024        | Honors Calculus II                                                                                 | 3       |                                                               |                                |             |               |             |               |             |               |             |               |             |               |                   |                                                                                                                                                                                          |
| MATH                                                                                | 2011        | Introduction to Multivariable Calculus                                                             | 3       |                                                               |                                |             | 3             |             |               |             |               |             |               |             |               | 3                 |                                                                                                                                                                                          |
| MATH                                                                                | 2111        | Matrix Algebra and Applications                                                                    | 3       |                                                               |                                | 3           |               |             |               |             |               |             |               |             |               | 3                 |                                                                                                                                                                                          |
| <b>Required credits for Engineering Fundamental Courses</b>                         |             |                                                                                                    |         | 16-20                                                         | 9                              | 3           | 3             | 3           | 3             | 0           | 0             | 0           | 0             | 0           | 0             | 18                |                                                                                                                                                                                          |
| <b>Major Required Courses and Electives</b>                                         |             |                                                                                                    |         |                                                               |                                |             |               |             |               |             |               |             |               |             |               |                   |                                                                                                                                                                                          |
| IEDA                                                                                | 1010        | Academic and Professional Development I                                                            | 0       | 0                                                             | 0                              |             |               |             |               |             |               |             |               |             |               | 0                 |                                                                                                                                                                                          |
| IEDA                                                                                | 1020        | Academic and Professional Development II                                                           | 0       |                                                               |                                | 0           | 0             |             |               |             |               |             |               |             |               | 0                 |                                                                                                                                                                                          |
| IEDA                                                                                | 1901        | Industrial Training and Experience                                                                 | 0       |                                                               |                                |             |               |             |               |             |               |             |               |             |               | 0                 |                                                                                                                                                                                          |
| IEDA                                                                                | 2010        | Introduction to Industrial Engineering and Decision Analytics                                      | 3       |                                                               |                                |             |               |             |               |             |               |             |               |             |               | 3                 |                                                                                                                                                                                          |
| IEDA                                                                                | 2020        | Probability for Engineers                                                                          | 3       |                                                               |                                |             | 3             |             |               |             |               |             |               |             |               | 3                 |                                                                                                                                                                                          |
| IEDA                                                                                | 2540        | Statistics for Engineers                                                                           | 3       | -                                                             | -                              | -           | -             | -           | -             | -           | -             | -           | -             | -           | -             | 0                 | Substituted by ISOM 2500                                                                                                                                                                 |
| IEDA                                                                                | 3010        | Prescriptive Analytics                                                                             | 3       |                                                               |                                |             |               | 3           |               |             |               |             |               |             |               | 3                 |                                                                                                                                                                                          |
| IEDA                                                                                | 3220        | Engineering Economics and Accounting                                                               | 3       |                                                               |                                | 3           |               |             |               |             |               |             |               |             |               | 3                 |                                                                                                                                                                                          |
| IEDA                                                                                | 3220        | Stochastic Models                                                                                  | 3       |                                                               |                                |             |               |             |               |             |               |             |               |             |               | 3                 |                                                                                                                                                                                          |
| IEDA                                                                                | 3300        | Industrial Data Systems                                                                            | 3       |                                                               |                                | 3           |               |             |               |             |               |             |               |             |               | 3                 |                                                                                                                                                                                          |
| IEDA                                                                                | 4100        | Integrated Production Systems                                                                      | 3       |                                                               |                                |             |               | 3           |               |             |               |             |               |             |               | 3                 | Substitute ISOM 2700                                                                                                                                                                     |
| IEDA                                                                                | 4120        | System Simulation                                                                                  | 3       |                                                               |                                |             |               |             | 3             |             |               |             |               |             |               | 3                 |                                                                                                                                                                                          |
| IEDA                                                                                | 4901        | Note: IEDA 4901 OR IEDA 4960                                                                       | 6       |                                                               |                                |             |               |             |               |             |               |             |               |             |               |                   |                                                                                                                                                                                          |
| IEDA                                                                                | 4960        | Final Year Thesis                                                                                  | 6       |                                                               |                                |             |               |             |               |             |               |             |               | 3           | 3             | 6                 |                                                                                                                                                                                          |
| IEDA                                                                                | 4960        | Industrial Engineering and Engineering Management Final Year Project                               | 6       |                                                               |                                |             |               |             |               |             |               |             |               |             |               |                   |                                                                                                                                                                                          |
| ECON                                                                                | 2103        | Note: ECON 2103 OR ECON 2113                                                                       | 3       |                                                               |                                |             |               |             |               |             |               |             |               |             |               |                   |                                                                                                                                                                                          |
| ECON                                                                                | 2113        | Principles of Microeconomics                                                                       | 3       |                                                               | 3                              |             |               |             |               |             |               |             |               |             |               | 3                 |                                                                                                                                                                                          |
| ECON                                                                                | 2113        | Microeconomics                                                                                     | 3       |                                                               |                                |             |               |             |               |             |               |             |               |             |               |                   |                                                                                                                                                                                          |
| IEDA                                                                                |             | Industrial Engineering Electives (Courses from the specified elective list)                        | 21      |                                                               |                                |             |               |             |               |             |               | 3           | 6             | 6           | 6             | 21                |                                                                                                                                                                                          |
| <b>BEng in Industrial Engineering and Engineering Management Major Requirements</b> |             |                                                                                                    |         | 57                                                            | 3                              | 3           | 9             | 0           | 6             | 6           | 3             | 6           | 9             | 9           | 54            |                   |                                                                                                                                                                                          |
| <b>BBA in Finance</b>                                                               |             |                                                                                                    |         |                                                               |                                |             |               |             |               |             |               |             |               |             |               |                   |                                                                                                                                                                                          |
| <b>School Requirements</b>                                                          |             |                                                                                                    |         |                                                               |                                |             |               |             |               |             |               |             |               |             |               |                   |                                                                                                                                                                                          |
| 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                                                                       | 3       |                                                               |                                |             |               |             |               |             |               |             |               |             |               |                   |                                                                                                                                                                                          |
| ECON                                                                                | 2113        | Principles of Microeconomics                                                                       | 3       |                                                               |                                | (3)         |               |             |               |             |               |             |               |             |               | 0                 | This course will be counted as an IE major required course.                                                                                                                              |
| ECON                                                                                | 2113        | Microeconomics                                                                                     | 3       |                                                               |                                |             |               |             |               |             |               |             |               |             |               |                   |                                                                                                                                                                                          |
| ECON                                                                                | 3123        | Note: ECON 3123 OR ECON 3123                                                                       | 3       |                                                               |                                |             |               |             |               |             |               |             |               |             |               |                   |                                                                                                                                                                                          |
| ECON                                                                                | 3123        | Macroeconomics                                                                                     | 3       |                                                               |                                |             | 3             |             |               |             |               |             |               |             |               | 3                 |                                                                                                                                                                                          |
| ECON                                                                                | 3123        | Macroeconomics Theory I                                                                            | 3       |                                                               |                                |             |               |             |               |             |               |             |               |             |               |                   |                                                                                                                                                                                          |
| FINA                                                                                | 2303        | Financial Management                                                                               | 3       |                                                               |                                |             | 3             |             |               |             |               |             |               |             |               | 3                 | FINA 2303 is a major pre-requisite                                                                                                                                                       |
| ISOM                                                                                | 2010        | Introduction to Information Systems                                                                | 3       | -                                                             | -                              | -           | -             | -           | -             | -           | -             | -           | -             | -           | -             | 0                 | COMP 1023, COMP 2011 or COMP 2012H are more advanced computing courses as compared to ISOM 2010. Students SHOULD take COMP 1023, COMP 2011 or COMP 2012H instead of ISOM 2010.           |
| ISOM                                                                                | 2020        | Coding for Business                                                                                | 1       | -                                                             | -                              | -           | -             | -           | -             | -           | -             | -           | -             | -           | -             | 0                 | ISOM 2020 is waived for DDP students who have taken and passed COMP 1023, COMP 2011 or COMP 2012H. These COMP courses are similar or more advanced coding (Python) courses as ISOM 2020. |
| ISOM                                                                                | 2500        | Business Statistics                                                                                | 3       |                                                               | 3                              |             |               |             |               |             |               |             |               |             |               | 3                 | Substitute IEDA 2540                                                                                                                                                                     |
| ISOM                                                                                | 2600        | Introduction to Business Analytics                                                                 | 1       |                                                               |                                |             |               |             |               |             |               |             | 1             |             |               | 1                 |                                                                                                                                                                                          |
| ISOM                                                                                | 2700        | Operations Management                                                                              | 3       | -                                                             | -                              | -           | -             | -           | -             | -           | -             | -           | -             | -           | -             | 0                 | Substituted by IEDA 4100                                                                                                                                                                 |
| MARK                                                                                | 2120        | Marketing Management                                                                               | 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                 |                                                                                                                                                                                          |
| MATH                                                                                | 1003        | Note: MATH 1003 OR MATH 1013 OR MATH 1020 OR MATH 1023                                             | 3.4     |                                                               |                                |             |               |             |               |             |               |             |               |             |               |                   |                                                                                                                                                                                          |
| MATH                                                                                | 1013        | Calculus and Linear Algebra                                                                        | 3       |                                                               |                                | (3)         |               |             |               |             |               |             |               |             |               | 0                 | DDP students should take MATH 1013 and MATH 1023 or MATH 1020 to satisfy the requirements of both BEng and BBA degrees                                                                   |
| MATH                                                                                | 1020        | Accelerated Calculus                                                                               | 3       |                                                               |                                |             |               |             |               |             |               |             |               |             |               |                   |                                                                                                                                                                                          |
| MATH                                                                                | 1023        | Honors Calculus I                                                                                  | 3       |                                                               |                                |             |               |             |               |             |               |             |               |             |               |                   |                                                                                                                                                                                          |
| <b>Required Credits for School Requirements</b>                                     |             |                                                                                                    |         | 30-40                                                         | 0                              | 3           | 0             | 0           | 3             | 2           | 2             | 0           | 0             | 1           | 26            |                   |                                                                                                                                                                                          |
| <b>Major Required Courses and Electives</b>                                         |             |                                                                                                    |         |                                                               |                                |             |               |             |               |             |               |             |               |             |               |                   |                                                                                                                                                                                          |
| FINA                                                                                | 3001        | Key Skills for Finance Professionals (A)                                                           | 1       |                                                               |                                |             |               | 1           |               |             |               |             |               |             |               | 1                 |                                                                                                                                                                                          |
| FINA                                                                                | 3103        | Intermediate Investments                                                                           | 3       |                                                               |                                |             |               | 3           |               |             |               |             |               |             |               | 3                 |                                                                                                                                                                                          |
| FINA                                                                                | 3203        | Derivative Securities                                                                              | 3       |                                                               |                                |             |               |             | 3             |             |               |             |               |             |               | 3                 |                                                                                                                                                                                          |
| FINA                                                                                | 3303        | Intermediate Corporate Finance                                                                     | 3       |                                                               |                                |             |               |             |               | 3           |               |             |               |             |               | 3                 |                                                                                                                                                                                          |
| FINA                                                                                | 3810        | Bloomberg Market Concepts Certification                                                            | 0       |                                                               |                                |             |               | 0           |               |             |               |             |               |             |               | 0                 |                                                                                                                                                                                          |
|                                                                                     |             | Note: (ACCT 3010 AND ACCT 3020) OR ACCT 3030                                                       | 3.6     |                                                               |                                |             |               |             |               | 3           |               |             |               |             |               | 3                 |                                                                                                                                                                                          |
|                                                                                     |             | Note: ISOM 3030 OR ISOM 3400                                                                       | 3       |                                                               |                                |             |               |             | 3             |             |               |             |               |             |               | 3                 | If DDP students took COMP 1023 in BEng requirement, they are required to enroll ISOM 3200                                                                                                |
| FINA                                                                                |             | FINA 3000 (level or above Electives (Any 3 courses of the subject and level as specified))         | 9       |                                                               |                                |             |               |             |               |             |               | 3           | 3             | 3           | 9             |                   |                                                                                                                                                                                          |
| <b>Required Credits for Major Required Courses and Electives</b>                    |             |                                                                                                    |         | 25-28                                                         | 0                              | 0           | 0             | 0           | 4             | 6           | 6             | 3           | 3             | 3           | 26            |                   |                                                                                                                                                                                          |
| <b>Additional Requirement for Dual Degree</b>                                       |             |                                                                                                    |         |                                                               |                                |             |               |             |               |             |               |             |               |             |               |                   |                                                                                                                                                                                          |
| <b>Requirements for Dual Degree Program</b>                                         |             |                                                                                                    |         |                                                               |                                |             |               |             |               |             |               |             |               |             |               |                   |                                                                                                                                                                                          |
| TEMG                                                                                | 1011        | T&M Professional Activities I                                                                      | 0       | 0                                                             | 0                              |             |               |             |               |             |               |             |               |             |               | 0                 |                                                                                                                                                                                          |
| TEMG                                                                                | 1012        | T&M Professional Activities II                                                                     | 0       |                                                               |                                | 0           | 0             |             |               |             |               |             |               |             |               | 0                 |                                                                                                                                                                                          |
| TEMG                                                                                | 1013        | T&M Professional Activities III                                                                    | 0       |                                                               |                                |             |               | 0           | 0             |             |               |             |               |             |               | 0                 |                                                                                                                                                                                          |
| TEMG                                                                                | 1014        | T&M Professional Activities IV                                                                     | 0       |                                                               |                                |             |               |             |               | 0           | 0             |             |               |             |               | 0                 |                                                                                                                                                                                          |
| TEMG                                                                                | 1015        | T&M Professional Activities V                                                                      | 0       |                                                               |                                |             |               |             |               |             |               | 0           | 0             | 0           | 0             | 0                 |                                                                                                                                                                                          |
| TEMG                                                                                | 1900        | T&M Case Analysis and Product Innovation                                                           | 3       |                                                               | 3                              |             |               |             |               |             |               |             |               |             |               | 3                 | To graduate, students should complete ALL requirements as specified for DDP.                                                                                                             |
| TEMG                                                                                | 4900        | T&M Corporate Consulting Project                                                                   | 3.6     |                                                               |                                |             |               |             |               |             |               | 4           |               |             |               | 4                 |                                                                                                                                                                                          |
| <b>Required Credits for Additional Requirements</b>                                 |             |                                                                                                    |         | 7                                                             | 0                              | 3           | 0             | 0           | 0             | 0           | 0             | 4           | 0             | 0           | 7             |                   |                                                                                                                                                                                          |
| <b>University Common Core Requirements</b>                                          |             |                                                                                                    |         |                                                               |                                |             |               |             |               |             |               |             |               |             |               |                   |                                                                                                                                                                                          |
| CORE                                                                                | C3 - C9     | U CORE - Others                                                                                    | 21      |                                                               |                                |             |               | 3           |               | 3           | 3             | 6           | 6             |             |               | 21                |                                                                                                                                                                                          |
| CORE                                                                                | C1 & C2     | U CORE - English Language                                                                          | 6       | 3                                                             | 3                              |             |               |             |               |             |               |             |               |             |               | 6                 |                                                                                                                                                                                          |
| HMWI                                                                                | 1905        | Behavioral Foundations of University Education: Habits, Mindsets, and Wellness                     | 3       | 1                                                             | 2                              |             |               |             |               |             |               |             |               |             |               | 3                 |                                                                                                                                                                                          |
| <b>Sub-total for University CORE</b>                                                |             |                                                                                                    |         | 30                                                            | 4                              | 5           | 0             | 5           | 3             | 0           | 3             | 3           | 6             | 6           | 30            |                   |                                                                                                                                                                                          |
|                                                                                     |             |                                                                                                    |         |                                                               | Term load (incl. free credits) |             |               |             |               |             |               |             |               |             |               |                   |                                                                                                                                                                                          |
|                                                                                     |             |                                                                                                    |         |                                                               | 19                             | 17          | 12            | 12          | 1             | 16          | 14            | 14          | 19            | 18          | 19            |                   | 100                                                                                                                                                                                      |
|                                                                                     |             |                                                                                                    |         |                                                               | 160##                          |             |               |             |               |             |               |             |               |             |               |                   |                                                                                                                                                                                          |

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.