

<< Declaration of BEng major << Declaration of BBA major

| School: | | School of Science and School of Business Management | | | Student's Pathway | | | | | | | | | | Remarks | |
|---|-------------|---|---------|-------|-------------------|---------------|-------------|---------------|-------------|---------------|-------------|---------------|-------------|---------------|---------|-----------|
| Program: | | Dual Degree Program (BSc in Biotechnology and BBA in Economics) | | | 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 | | | | | | | | | | | | | |
| BSc in Biotechnology | | | | | | | | | | | | | | | | |
| School Requirements | | | | | | | | | | | | | | | | |
| COMP | 1021 | Note: COMP1021 OR COMP1022P OR COMP2011 | 3-4 | | | | | | | | | | | | | |
| COMP | 1022P | Introduction to Computer Science | 3 | | | | | | | | | | | | | |
| COMP | 2011 | Introduction to Computing with Java Programming with C++ | 4 | | | 3 | | | | | | | | | 3 | |
| SSCI | | Science Foundation courses [8 courses from the specified elective list. Students should take (i) 7 foundation lecture courses, including at least 1 lecture course, but no more than 3 lecture courses, from each of the four disciplines: CHEM, LIFS/OCES, MATH and PHYS; and (ii) 1 laboratory course.] | 22-26 | | | | | | | | | | | | | |
| CHEM | 1008 | Introductory Chemistry | 3 | | | | | | | | | | | | | |
| CHEM | 1011 | General Chemistry A: Reactions, Thermodynamics, and Reaction Kinetics | 3 | | | | | | | | | | | | | |
| CHEM | 1012 | General Chemistry B: Atomic Structure, Molecules, and Bonding Theories | 3 | | | | | | | | | | | | | |
| CHEM | 1051 | Laboratory for General Chemistry A | 1 | | | | | | | | | | | | | |
| CHEM | 1052 | Laboratory for General Chemistry B | 1 | | | | | | | | | | | | | |
| DASC | 2010 | Calculus for Data Analytics in Science | 3 | | | | | | | | | | | | | |
| LIFS | 1030** | Environmental Science | 3 | | | | | | | | | | | | | |
| LIFS | 1901@ | General Biology I @ | 3 | | | | | | | | | | | | | |
| LIFS | 1902@ | General Biology II @ | 3 | | | | | | | | | | | | | |
| LIFS | 1903 | Laboratory for General Biology I | 3 | | | | | | | | | | | | | |
| LIFS | 1904 | Laboratory for General Biology II | 1 | | | | | | | | | | | | | |
| LIFS | 1930 | Nature of Life Sciences | 1 | | | | | | | | | | | | | |
| LIFS | 2210 | Biochemistry I | 3 | | | | | | | | | | | | | |
| MATH | 1012 | Calculus IA | 3 | 10 | 3 | 6 | 3 | | | | | | | | | |
| MATH | 1013 | Calculus IB | 4 | | | | | | | | | | | | | |
| MATH | 1014 | Calculus II | 3 | | | | | | | | | | | | | |
| MATH | 1020 | Accelerated Calculus | 3 | | | | | | | | | | | | | |
| MATH | 1023 | Honors Calculus I | 4 | | | | | | | | | | | | | |
| MATH | 1024 | Honors Calculus II | 3 | | | | | | | | | | | | | |
| MATH | 2023 | Multivariable Calculus | 3 | | | | | | | | | | | | | |
| MATH | 2121 | Linear Algebra | 4 | | | | | | | | | | | | | |
| MATH | 2131 | Honors in Linear and Abstract Algebra I | 4 | | | | | | | | | | | | | |
| OCES | 1001 | The Earth as a Blue Planet | 3 | | | | | | | | | | | | | |
| OCES | 1010 | Principles and Applications of Environmental Science | 3 | | | | | | | | | | | | | |
| PHYS | 1101 | Introductory Physics | 4 | | | | | | | | | | | | | |
| PHYS | 1111 | General Physics I | 3 | | | | | | | | | | | | | |
| PHYS | 1112 | General Physics I with Calculus | 3 | | | | | | | | | | | | | |
| PHYS | 1113 | Laboratory for General Physics I | 1 | | | | | | | | | | | | | |
| PHYS | 1114 | General Physics II | 3 | | | | | | | | | | | | | |
| PHYS | 1115 | Laboratory for General Physics II | 1 | | | | | | | | | | | | | |
| PHYS | 1312 | Honors General Physics I | 3 | | | | | | | | | | | | | |
| PHYS | 1314 | Honors General Physics II | 3 | | | | | | | | | | | | | |
| Required credits for School / Major Pre-requisite Requirements | | | 25-29 | | | | | | | | | | | | 25 | |
| Major Requirements | | | | | | | | | | | | | | | | |
| Major Required Courses and Electives | | | | | | | | | | | | | | | | |
| LIFS | 1903 | Laboratory for General Biology I | 1 | (1) | | | | | | | | | | | 0 | |
| LIFS | 1904 | Laboratory for General Biology II | 1 | | 1 | | | | | | | | | | 1 | |
| LIFS | 2040 | Cell Biology | 3 | | | | 3 | | | | | | | | 3 | |
| LIFS | 2070 | Introduction to Biotechnology | 3 | | | | 3 | | | | | | | | 3 | |
| LIFS | 2080 | Plant Biology | 3 | | | | 3 | | | | | | | | 3 | |
| LIFS | 2210 | Biochemistry I | 3 | | | | (3) | | | | | | | | 0 | |
| LIFS | 2220 | Biochemistry II | 3 | | | | | | | 3 | | | | | 3 | |
| LIFS | 3150 | Biostatistics | 3 | | | | | | 3 | | | | | | 3 | |
| | | Note: LIFS4963 OR (LIFS4973 AND LIFS4983) OR (SCIE4500 AND LIFS4983) [Students following IRE Track can only use (SCIE4500 AND LIFS4983) to fulfill the requirement.] | 3-7 | | | | | | | | | | | | | |
| LIFS | 4963 | Biotechnology Capstone Project | 3 | | | | | | | | | [3] | 3 | | 3 | |
| LIFS | 4973 | Biotechnology Project Research I | 3 | | | | | | | | | | | | | |
| LIFS | 4983 | Biotechnology Project Research II | 4 | | | | | | | | | | | | | |
| SCIE | 4500 | IRE Research Project II | 3 | | | | | | | | | | | | | |
| CHEM | 1011 | General Chemistry A: Reactions, Thermodynamics, and Reaction Kinetics | 3 | (3) | | | | | | | | | | | 0 | |
| CHEM | 1012 | General Chemistry B: Atomic Structure, Molecules, and Bonding Theories | 3 | | | (3) | | | | | | | | | 0 | |
| CHEM | 1051 | Laboratory for General Chemistry A | 1 | 1 | | | | | | | | | | | 1 | |
| CHEM | 1052 | Laboratory for General Chemistry B | 1 | | 1 | | | | | | | | | | 1 | |
| CHEM | 2111 | Note: CHEM 2111 OR CHEM 2311 | 3 | | | | | | 3 | | | | | | 3 | |
| CHEM | 2311 | Fundamentals of Organic Chemistry Analytical Chemistry | 3 | | | | | | | | | | | | | |
| CHEM | 2155 | Note: CHEM2155 OR CHEM2355 | 1 | | | | | | | 1 | | | | | 1 | |
| CHEM | 2355 | Fundamental Organic Chemistry Laboratory Fundamental Analytical Chemistry Laboratory | 1 | | | | | | | | | | | | | |
| LIFS/ BIPH/ BTEC/ OCES/ PHYS/ BIEN/ CENG | | Biotechnology Electives (Courses from the specified elective list; Students following IRE Track are required to take a minimum of 15 credits, while others a minimum of 18 credits. Courses taken as Major/Track Required Courses may not be counted towards the elective requirement.) | 15-18 | | | | | | | 3 | | 3 | 6 | 3 | 15 | |
| Applied Bioscience Track/ Entrepreneurship Track | | | | | | | | | | | | | | | | |
| LIFS/ CENG/ SCIE | | Students should follow one of the tracks and complete all requirements as specified: Applied Bioscience Track OR Entrepreneurship Track | 18-19 | | | | | | | 3 | 4 | 3 | 3 | 3 | 3 | 19 |
| Required credits for Major Required Courses and Electives | | | 68-76 | | | | | | | | | | | | 59 | |
| BBA in Economics | | | | | | | | | | | | | | | | |
| 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 | 3 | | | | | | | | | | | | 3 | |
| ECON | 2113 | Principles of Microeconomics Microeconomics | 3 | | | | 3 | | | | | | | | 3 | |
| ECON | 2123 | Note: ECON 2123 OR ECON 3123 | 3 | | | | | | | 3 | | | | | 3 | |
| ECON | 3123 | Macroeconomics 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 | | | | | | | | | | | | 0 | |
| 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 | |
| MGMT | 2110 | Organizational Behavior | 3 | | | | 3 | | | | | | | | 3 | |
| MGMT | 2130 | Business Ethics and Social Responsibility | 2 | | | | | | | | | | 2 | | 2 | |
| 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 | (3) | | | | | | | | | | | 0 | |
| MATH | 1020 | Calculus IB Accelerated Calculus | 4 | | | | | | | | | | | | | |
| MATH | 1023 | Honors Calculus I | 3 | | | | | | | | | | | | | |
| Required credits for School Requirements | | | 39-40 | | | | | | | | | | | | 32 | |
| Major Requirements | | | | | | | | | | | | | | | | |
| Major Required Courses and Electives | | | | | | | | | | | | | | | | |
| ECON | 3014 | Managerial Microeconomics | 4 | | | | | | | 4 | | | | | 4 | |
| ECON | 3024 | Managerial Macroeconomics | 4 | | | | | | | | 4 | | | | 4 | |
| ECON | 3334 | Introduction to Econometrics | 4 | | | | | | | | 4 | | | | 4 | |
| ECON | | ECON 4000-level Electives (Any 3 courses of the subject and level as specified) | 11 | | | | | | | | | 4 | 4 | 3 | 11 | |
| Required credits for Major Required Courses and Electives | | | 23 | | | | | | | | | | | | 23 | |
| 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 - C9 | U CORE - Others | 21 | | | | | 3 | | | 9 | 6 | 3 | | 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 | |
| | | | | 18 | 18 | 18 | 18 | 20 | 18 | 19 | 17 | 16 | 14 | | | |
| | | | | 176## | | | | | | | | | | | | |

Notes:

- @ Course that students need to complete before enrolling into respective major/programs.
- () indicates the reuse of the same course to fulfill more than one requirement.
- [] denotes the course is also offered in other terms as indicated and students may take the course in one of these subject to advice by the program office.
- 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.