

<< Declaration of major

| School:  |             | School of Engineering and School of Business Management  |         |             | Student's Pathway |             |               |             |               |             |               |             |               |           |     |    |  |
|--|-------------|--|---------|-------------|-------------------|-------------|---------------|-------------|---------------|-------------|---------------|-------------|---------------|-----------|-----|----|--|
| Program:   |             | Dual Degree Program (BEng in Computer 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 |     |    |  |
| <b>BEng in Computer Engineering</b>                                  |             |  |         |             |                   |             |               |             |               |             |               |             |               |           |     |    |  |
| <b>Major Requirements</b>  |             |  |         |             |                   |             |               |             |               |             |               |             |               |           |     |    |  |
| <b>Engineering Fundamental Courses</b>                               |             |  |         |             |                   |             |               |             |               |             |               |             |               |           |     |    |  |
| COMP   | 1021        | Note: COMP1021 OR COMP1022P OR COMP1022Q<br>Introduction to Computer Science   | 3       |             | 3                 |             |               |             |               |             |               |             |               |           | 3   |    |  |
| COMP   | 1022P       | Introduction to Computing with Java  | 3       |             |                   |             |               |             |               |             |               |             |               |           | 3   |    |  |
| COMP   | 1022Q       | Introduction to Computing with Excel VBA   | 3       |             |                   |             |               |             |               |             |               |             |               |           | 3   |    |  |
| ENGG   | 1010        | Academic Orientation   | 0       | 0           | 0                 |             |               |             |               |             |               |             |               |           | 0   |    |  |
| LANG   | 2030        | Technical Communication I  | 3       |             |                   |             | 3             |             |               |             |               |             |               |           | 3   |    |  |
| MATH   | 1012        | Calculus IA  | 4       |             |                   |             |               |             |               |             |               |             |               |           | 4   |    |  |
| MATH   | 1013        | Calculus IB  | 3       |             |                   |             |               |             |               |             |               |             |               |           | 3   |    |  |
| MATH   | 1014        | Calculus II  | 3       | 3           | 3                 |             |               |             |               |             |               |             |               |           | 6   |    |  |
| MATH   | 1020        | Accelerated Calculus   | 4       |             |                   |             |               |             |               |             |               |             |               |           | 4   |    |  |
| MATH   | 1023        | Honors Calculus I  | 3       |             |                   |             |               |             |               |             |               |             |               |           | 3   |    |  |
| MATH   | 1024        | Honors Calculus II   | 3       |             |                   |             |               |             |               |             |               |             |               |           | 3   |    |  |
| MATH   | 2011        | Introduction to Multivariable Calculus   | 3       |             |                   |             |               |             | 3             |             |               |             |               |           | 3   |    |  |
| MATH   | 2111        | Matrix Algebra and Applications  | 3       |             |                   |             |               |             | 3             |             |               |             |               |           | 3   |    |  |
| PHYS   | 1112        | Note: PHYS1112 OR PHYS1312<br>General Physics I with Calculus  | 3       | 3           |                   |             |               |             |               |             |               |             |               |           | 3   |    |  |
| PHYS   | 1312        | Honors General Physics I   | 3       |             |                   |             |               |             |               |             |               |             |               |           | 3   |    |  |
| PHYS   | 1114        | Note: PHYS1114 OR PHYS1314<br>General Physics II   | 3       |             |                   |             |               |             |               | 3           |               |             |               |           | 3   |    |  |
| PHYS   | 1314        | Honors General Physics II  | 3       |             |                   |             |               |             |               |             |               |             |               |           | 3   |    |  |
| SENG   |             | Engineering Introduction course (If the students take an introduction course included in their major, this course can be counted towards their major requirement.)   | 3-4     | (3)         |                   |             |               |             |               |             |               |             |               |           | 0   |    |  |
| <b>Required credits for Engineering Fundamental Courses</b>          |             |  | 25-29   |             |                   |             |               |             |               |             |               |             |               |           | 24  |    |  |
| <b>Major Required Courses and Electives</b>                          |             |  |         |             |                   |             |               |             |               |             |               |             |               |           |     |    |  |
| CPEG   | 2930        | Academic and Professional Development I  | 0       |             |                   | 0           | 0             |             |               |             |               |             |               |           | 0   |    |  |
| CPEG   | 3930        | Academic and Professional Development II   | 0       |             |                   |             |               | 0           | 0             |             |               |             |               |           | 0   |    |  |
| COMP   | 2011        | Note: (COMP2011 AND COMP2012) OR COMP2012H<br>Programming with C++   | 4       |             |                   |             |               |             |               |             |               |             |               |           | 4   |    |  |
| COMP   | 2012        | Object-Oriented Programming and Data Structures  | 4       |             |                   | 4           |               | 4           |               |             |               |             |               |           | 8   |    |  |
| COMP   | 2012H       | Honors Object-Oriented Programming and Data Structures   | 5       |             |                   |             |               |             |               |             |               |             |               |           | 5   |    |  |
| COMP   | 2611        | Note: COMP2611 OR ELEC2350<br>Computer Organization  | 4       |             |                   |             |               |             | 4             |             |               |             |               |           | 4   |    |  |
| ELEC   | 2350        | Introduction to Computer Organization and Design   | 4       |             |                   |             |               |             |               |             |               |             |               |           | 4   |    |  |
| COMP   | 2711        | Note: COMP2711 OR COMP2711H OR ELEC 2600<br>Discrete Mathematical Tools for Computer Science   | 4       |             |                   |             |               |             |               |             |               |             |               |           | 4   |    |  |
| COMP   | 2711H       | Honors Discrete Mathematical Tools for Computer Science  | 4       |             |                   |             |               |             |               | 4           |               |             |               |           | 4   |    |  |
| ELEC   | 2600        | Probability and Random Processes in Engineering  | 4       |             |                   |             |               |             |               |             |               |             |               |           | 4   |    |  |
| COMP   | 3511        | Operating Systems  | 3       |             |                   |             |               |             |               |             |               | 3           |               |           | 3   |    |  |
| COMP   | 4521        | Note: COMP4521 OR COMP4611 OR ELEC 4310<br>Mobile Application Development  | 3       |             |                   |             |               |             |               |             |               |             |               |           | 3   |    |  |
| COMP   | 4611        | Design and Analysis of Computer Architectures  | 3       |             |                   |             |               |             |               |             |               |             |               |           | 3   |    |  |
| ELEC   | 4310        | Embedded System Design   | 3       |             |                   |             |               |             |               |             |               | 3           |               |           | 3   |    |  |
| ELEC   | 4320        | FPGA-based Design: From Theory to Practice   | 3       |             |                   |             |               |             |               |             |               |             |               |           | 3   |    |  |
| ELEC   | 4330        | Mobile Embedded Systems: Hardware Platform, Software Development, and Applications   | 3       |             |                   |             |               |             |               |             |               |             |               |           | 3   |    |  |
| CPEG   | 4910        | Note: COMP4910 OR COMP4911 OR ELEC 4910<br>Industrial Experience   | 6       |             |                   |             |               |             |               |             |               |             |               |           | 6   |    |  |
| CPEG   | 4902        | Computer Engineering Final Year Project in COMP  | 6       |             |                   |             |               |             |               |             |               |             |               |           | 6   |    |  |
| CPEG   | 4911        | Computer Engineering Final Year Thesis in COMP   | 6       |             |                   |             |               |             |               |             |               |             | 3             | 3         | 6   |    |  |
| CPEG   | 4912        | Computer Engineering Final Year Project in ELEC  | 6       |             |                   |             |               |             |               |             |               |             |               |           | 6   |    |  |
| CPEG   | 4910        | Computer Engineering Final Year Thesis in ELEC   | 6       |             |                   |             |               |             |               |             |               |             |               |           | 6   |    |  |
| CPEG   | 4910        | Co-op Program  | 6       |             |                   |             |               |             |               |             |               |             |               |           | 6   |    |  |
| ELEC   | 1100        | Introduction to Electro-Robot Design   | 4       |             |                   | 4           |               |             |               |             |               |             |               |           | 4   |    |  |
| ELEC   | 1200        | Note: ELEC1200 OR ELEC2100 OR ELEC2400 (2 courses out of 3)<br>A System View of Communications: from Signals to Packets  | 8       |             |                   |             |               |             |               |             |               |             |               |           | 8   |    |  |
| ELEC   | 2100        | Signals and Systems  | 4       |             |                   |             | 4             |             | 4             |             |               |             |               |           | 8   |    |  |
| ELEC   | 2400        | Electronic Circuits  | 4       |             |                   |             |               |             |               |             |               |             |               |           | 4   |    |  |
| ELEC   | 3300        | Introduction to Embedded Systems   | 4       |             |                   |             |               |             |               |             |               | 4           |               |           | 4   |    |  |
| ENGG   | 2010        | Engineering Seminar Series   | 0       |             |                   | 0           | 0             | 0           | 0             |             |               | 4           |               |           | 0   |    |  |
| LANG   | 4030        | Note: LANG4030 OR LANG4031<br>Technical Communication II for CSE & CPEG  | 3       |             |                   |             |               |             |               |             |               |             |               |           | 3   |    |  |
| LANG   | 4031        | Technical Communication II for ECE & CPEG  | 3       |             |                   |             |               |             |               |             |               |             | 3             |           | 3   |    |  |
| COMPELEC   |             | At least 15 courses (at least 4 courses from the specified elective list, of which at least 2 courses should be taken from one single area and at least 2 courses outside that area. Courses taken as Major Required Courses may not be counted towards the elective | 15      |             |                   | 3           |               |             |               |             |               | 4           | 4             | 4         | 15  |    |  |
| <b>Required credits for Major Requirements Courses and Electives</b> |             |  | 59-63   |             |                   |             |               |             |               |             |               |             |               |           | 62  |    |  |
| <b>BBA in General Business Management</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<br>Principles of Microeconomics   | 3       |             |                   | 3           |               |             |               |             |               |             |               |           | 3   |    |  |
| ECON   | 2113        | Microeconomics   | 3       |             |                   |             |               |             |               |             |               |             |               |           | 3   |    |  |
| ECON   | 2123        | Note: ECON 2123 OR ECON 3123<br>Macroeconomics   | 3       |             |                   |             |               | 3           |               |             |               |             |               |           | 3   |    |  |
| ECON   | 3123        | Macroeconomic Theory I   | 3       |             |                   |             |               |             |               |             |               |             |               |           | 3   |    |  |
| FINA   | 2303        | Financial Management   | 3       |             |                   |             |               |             |               |             |               |             |               |           | 3   |    |  |
| ISOM   | 2010        | Introduction to Information Systems  | 3       |             |                   |             |               |             |               |             |               |             |               |           | 3   |    |  |
| ISOM   | 2020        | Coding for Business  | 1       |             |                   |             |               | 1           |               |             |               |             |               |           | 1   |    |  |
| 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   |    |  |
| LABU   | 2040        | Business Case Analysis   | 3       |             |                   |             |               | 3           |               |             |               |             |               |           | 3   |    |  |
| LABU   | 2060        | Effective Communication in Business  | 3       |             |                   |             |               |             | 3             |             |               |             |               |           | 3   |    |  |
| MATH   | 1003        | Note: MATH1003 OR MATH1012 OR MATH1013 OR MATH1020 OR MATH1023<br>Calculus and Linear Algebra  | 3-4     |             |                   |             |               |             |               |             |               |             |               |           | 3-4 |    |  |
| MATH   | 1012        | Calculus IA  | 4       |             |                   |             |               |             |               |             |               |             |               |           | 4   |    |  |
| MATH   | 1013        | Calculus IB  | 3       |             |                   |             |               |             |               |             |               |             |               |           | 3   |    |  |
| MATH   | 1020        | Accelerated Calculus   | 4       |             |                   |             |               |             |               |             |               |             |               |           | 4   |    |  |
| MATH   | 1023        | Honors Calculus I  | 3       |             |                   |             |               |             |               |             |               |             |               |           | 3   |    |  |
| <b>Required credits for School Requirements</b>                      |             |  | 43-44   |             |                   |             |               |             |               |             |               |             |               |           | 39  |    |  |
| <b>Major Requirements</b>  |             |  |         |             |                   |             |               |             |               |             |               |             |               |           |     |    |  |
| <b>Major Required Courses and Electives</b>                          |             |  |         |             |                   |             |               |             |               |             |               |             |               |           |     |    |  |
| 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      |             |                   | 6           |               |             |               | 3           | 7             |             |               | 3         | 10  | 29 |  |
| <b>Required credits for Major Required Courses and Electives</b>     |             |  | 29      |             |                   |             |               |             |               |             |               |             |               |           |     | 29 |  |
| <b>Additional Requirements</b>                                       |             |  |         |             |                   |             |               |             |               |             |               |             |               |           |     |    |  |
| <b>Requirements for Dual Degree Program</b>                          |             |  |         |             |                   |             |               |             |               |             |               |             |               |           |     |    |  |
| <b>Required Courses</b>  |             |  |         |             |                   |             |               |             |               |             |               |             |               |           |     |    |  |
| TEMG   | 1010        | Technology and Management Professional Activities  | 0       |             |                   | 0           | 0             | 0           | 0             | 0           | 0             | 0           | 0             | 0         | 0   |    |  |
| TEMG   | 3950        | Case-based Problem Solving   | 2       |             |                   | 2           |               |             |               |             |               |             |               |           | 2   |    |  |
| <b>Required credits for Additional Requirements</b>                  |             |  | 2       |             |                   |             |               |             |               |             |               |             |               |           | 2   |    |  |
| <b>University CORE</b>   |             |  |         |             |                   |             |               |             |               |             |               |             |               |           |     |    |  |
| CORE   | C3 - C12    | U CORE - Others  | 30      | 6           | 6                 |             |               |             |               |             | 9             | 9           |               |           | 30  |    |  |
| CORE   | C1 & C2     | U CORE - English Language  | 6       | 3           | 3                 |             |               |             |               |             |               |             |               |           | 6   |    |  |
| <b>Sub-total for University CORE</b>                                 |             |  | 36      |             |                   |             |               |             |               |             |               |             |               |           | 36  |    |  |
| Term load (excl. free credits)                                       |             |  |         |             |                   |             |               |             |               |             |               |             |               |           |     |    |  |
| 18 20 20 20 20 20 19 20 20 20 18 17                                  |             |  |         |             |                   |             |               |             |               |             |               |             |               |           |     |    |  |
| 192#   |             |  |         |             |                   |             |               |             |               |             |               |             |               |           |     |    |  |
| << Declaration of major  |             |  |         |             |                   |             |               |             |               |             |               |             |               |           |     |    |  |

Notes:  
 ( ) indicates the reuse of the same course to fulfill more than one requirement.  
 --- denotes the course/requirement is either waived or substituted.  
 ## To graduate, students should complete all requirements as specified for DDP.

Remarks on course(s):