

Model Study Path for BENGEGU3 BME 2019 Cohort - Advanced Standing Ia (non-CES mode)
(for those who satisfy the pre-requisite for MA1201)

| Yr | Sem | Major Requirements | | | | | University Requirements | | CU's |
|---------------------------------|-----|-------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------|---------------------------------------------------------------------------------------|------------------------------------------------------|-----------------------------------------------------------------------|---------------------------------|----------------------------|
| 1 | A | PHY1201 General Physics I (3) or BCH1100 Chemistry (3) or BCH1200 Discovery in Biology (3) ^{#+} | BME2029 ⁺ Electrical and Electronic Principles (3) | CSpC 2: CS1102 ⁺ Introduction to Computer Studies (3) | BME2105 ⁺ Introduction to Biomedical Engineering (3) | BME2036 ⁺ Engineering Computing (3) | CSpC 1: MA1201 Calculus and Basic Linear Algebra II (3) | English (3) | 18 ⁺ |
| | B | BME2102 ⁺ Introduction to Biomechanics (3) | BME2121 ⁺ Artificial Intelligence in Biomedical Engineering (3) | CSpC 2: CS1102 ⁺ Introduction to Computer Studies (3) | BME2103 ⁺ Medical Biotechnology in Imaging and Measurement (3) | BMS2801 ⁺ Molecules and Cells (3) | MA2177 ⁺ Engineering Mathematics & Statistics (3) | English (3) | 18 ⁺ |
| | S | Reserve for missed courses | | | | | | | |
| 2 | A | BME4103 Bio-safety and Security (3) | BME3123 Materials for Biomedical Engineering (3) | BME3121 Biomedical Signals and Systems (3) | | BME2104 ⁺ Tissue Engineering (3) | | CCIV (3) | 15/18 ⁺ |
| | B | BME3102 Human Quantitative Physiology (3) | CS4465 Computational Biology and Bioinformatics (3) | BME3102 Bio-sensors and Bio- devices (3) | BME2122 ⁺ Biological Thermofluids (3) | Major Elective 1 (3) | | | 15 |
| | S | Reserve for IAS or taking some Elective courses available / | | | | | | | Reserve for missed courses |
| 3 | A | BME4102 Final Year Project (3) | BME4101 Biomedical Instrumentation (3) | BME3104 Health Maintenance and Wellness Technology (3) | | Major Elective 2 (3) | | GE 1 (3) | 15 |
| | B | BME4102 Final Year Project (6) | BME4066 Professional Engineering Practice (3) | BME3104 Health Maintenance and Wellness Technology (3) | | | | GE 2 (3) | 12 |
| | S | Reserve for missed Elective courses / | | | | | | | Reserve for missed courses |
| () indicates number of credits | | | | | | | | Total credits (minimum): | 93/96 |

⁺ up to 3 credit units of core courses have been waived for students admitted with Advanced Standing I from the B1 and B2 level courses upon admission based on the academic background of students. Prerequisites which are not part of the Major Requirement are waived for students admitted with Advanced Standing. Students with a course waived should take CS1102 in one of the semesters in Year 1 to balance their workload; students who do not receive any course waiver should take a GE English in the following semester/term if the loading exceeds 18 credit units in a semester.

[#] Students will be pre-registered into one of the 3 courses based on their academic background if the course has not been waived.

Note 1: Students are required to take MA1201 and CS1102 or CS1302 as College/School-specified Courses (CSpC). Students may also be required to take MA1200 as a prerequisite subject to the result of the placement test arranged by the MA department at the end of August before Year 1 Semester A.

Note 2: Students may alter the study path and courses can be taken in any order or in any year of study provided pre-requisite and pre-cursor requirements are satisfied and all graduation requirements could be met within the normative study period.

Note 3: Students can take Major electives from Year 2 depending on their overall study plan.

Model Study Path for BENGEGU3 BME 2019 Cohort - Advanced Standing Ia (Optional CES mode)
(for those who satisfy the pre-requisite for MA1201)

| Yr | Sem | Major Requirements ⁺ | | | | | | University Requirements | | CUs |
|---------------------------------|-----|------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|--------------------------------------------------------|-----------------------------------------------------------------------|-----------------------------------------|----------|--------------------|
| 1 | A | PHY1201 General Physics I (3) or BCH1100 Chemistry (3) or BCH1200 Discovery in Biology (3) [#] | BME2029 ⁺ Electrical and Electronic Principles (3) | CSpC 2: CS1102 ⁺ Introduction to Computer Studies (3) | BME2105 ⁺ Introduction to Biomedical Engineering (3) | BME2036 ⁺ Engineering Computing (3) | CSpC 1: MA1201 Calculus and Basic Linear Algebra II (3) | English (3) | | 18 ⁺ |
| | B | BME2102 ⁺ Introduction to Biomechanics (3) | BME2121 ⁺ Artificial Intelligence in Biomedical Engineering (3) | CSpC 2: CS1102 ⁺ Introduction to Computer Studies (3) | BME2103 ⁺ Medical Biotechnology Biotechnology in Imaging and Measurement (3) | BMS2801 ⁺ Molecules and Cells (3) | MA2177 ⁺ Engineering Mathematics & Statistics (3) | English (3) | | 18 ⁺ |
| | S | Reserve for missed courses | | | | | | | | |
| 2 | A | BME4103 Bio-safety and Security (3) | BME3123 Materials for Biomedical Engineering (3) | BME3121 Biomedical Signals and Systems (3) | | BME2104 ⁺ Tissue Engineering (3) | | | CCIV (3) | 15/18 ⁺ |
| | B | BME3102 Human Quantitative Physiology (3) | CS4465 Computational Biology and Bioinformatics (3) | | BME3103 Bio-sensors and Bio- devices (3) | BME2122 ⁺ Biological Thermofluids (3) | Major Elective 1 (3) | | | 15 |
| | S | | | | | | | GE 1 (3) | GE 2 (3) | 6 |
| 3 | A | BME4102 Final Year Project (3) | BME4101 Biomedical Instrumentation (3) | CES FS4001 (4) | BME3104 Health Maintenance and Wellness Technology (3) | | | | | 13 |
| | B | BME4102 Final Year Project (6) | BME4066 Professional Engineering Practice (3) | CES FS4001 (4) | BME3104 Health Maintenance and Wellness Technology (3) | Major Elective 2 (3) | | | | 16 |
| | S | Reserve for missed Elective courses / | | | | | | Reserve for missed courses | | |
| () indicates number of credits | | | | | | | | Total credits (minimum): 101/104 | | |

⁺ Up to 3 credit units of core courses have been waived for students admitted with Advanced Standing I from the B1 and B2 level courses upon admission based on the academic background of students.

Prerequisites which are not part of the Major Requirement are waived for students admitted with Advanced Standing. Students with a course waived should take CS1102 in one of the semesters in Year 1 to balance their workload; students who do not receive any course waiver should take a GE English in the following semester/term if the loading exceeds 18 credit units in a semester.

[#] Students will be pre-registered into one of the 3 courses based on their academic background if the course has not been waived.

Note 1: Students are required to take MA1201 and CS1102 or CS1302 as College/School-specified Courses (CSpC). Students may also be required to take MA1200 as a prerequisite subject to the result of the placement test arranged by the MA department at the end of August before Year 1 Semester A.

Note 2: Students may alter the study path and courses can be taken in any order or in any year of study provided pre-requisite and pre-cursor requirements are satisfied and all graduation requirements could be met within the normative study period.

Note 3: Students can take Major electives from Year 2 depending on their overall study plan.

Model Study Path for BENGEGU3 BME 2019 Cohort - Advanced Standing Ib (non-CES mode)
(for students who are required to complete MA1200)

| Yr | Sem | Major Requirements ⁺ | | | | | University Requirements | | CU's |
|----|-----|----------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|-------------------------------------------------------------------|---------------------------------------------------------------------------|------------------------------------------------|---------------------------------------------------------------|-------------|--------------------|
| 1 | A | PHY1201 General Physics I (3) or BCH1100 Chemistry (3) or BCH1200 Discovery in Biology (3) ^{#+} | BME2029 ⁺ Electrical and Electronic Principles (3) | CSpC 2: CS1102 ⁺ Introduction to Computer Studies (3) | BME2015 ⁺ Introduction to Biomedical Engineering (3) | BME2036 ⁺ Engineering Computing (3) | Pre-requisite: MA1200 Calculus and Basic Linear Algebra I (3) | English (3) | 18 ⁺ |
| | B | BME2102 ⁺ Introduction to Biomechanics (3) | BME2121 ⁺ Artificial Intelligence in Biomedical Engineering (3) | CSpC 2: CS1102 ⁺ Introduction to Computer Studies (3) | BME2103 ⁺ Medical Biotechnology in Imaging and Measurement (3) | BMS2801 ⁺ Molecules and Cells (3) | CSpC 2: MA1201 Calculus and Basic Linear Algebra II (3) | English (3) | 18 ⁺ |
| | S | Reserve for missed courses | | | | | | | |
| 2 | A | BME4103 Bio-safety and Security (3) | BME3123 Materials for Biomedical Engineering (3) | BME3121 Biomedical Signals and Systems (3) | | BME2104 ⁺ Tissue Engineering (3) | MA2177 ⁺ Engineering Mathematics & Statistics (3) | | 15 |
| | B | BME3102 Human Quantitative Physiology (3) | CS4465 Computational Biology and Bioinformatics (3) | BME3103 Bio-sensors and Bio-devices (3) | BME2122 ⁺ Biological Thermofluids (3) | | | CCIV (3) | 15/18 ⁺ |
| | S | Reserve for IAS or taking some Elective courses available / | | | | | Reserve for missed courses | | |
| 3 | A | BME4102 Final Year Project (3) | BME4101 Biomedical Instrumentation (3) | BME3104 Health Maintenance and Wellness Technology (3) | | Major Elective 1 (3) | | GE 1 (3) | 15 |
| | B | BME4102 Final Year Project (6) | BME4066 Professional Engineering Practice (3) | BME3104 Health Maintenance and Wellness Technology (3) | | Major Elective 2 (3) | | GE 2 (3) | 15 |
| | S | Reserve for missed Elective courses / | | | | | Reserve for missed courses | | |
| | | | | | | | Total credits (minimum): | | 96/99 |

() indicates number of credits

⁺ Up to 3 credit units of core courses have been waived for students admitted with Advanced Standing I from the B1 and B2 level courses upon admission based on the academic background of students.

Prerequisites which are not part of the Major Requirement are waived for students admitted with Advanced Standing. Students with a course waived should take CS1102 in one of the semesters in Year 1 to balance their workload; students who do not receive any course waiver should take a GE English in Year 2 Semester B if the loading exceeds 18 credit units in a semester.

[#] Students will be pre-registered into one of the 3 courses based on their academic background if the course has not been waived.

Note 1: Students are required to take MA1201 and CS1102 or CS1302 as College/School-specified Courses (CSpC). Students may also be required to take MA1200 as a prerequisite subject to the result of the placement test arranged by the MA department at the end of August before Year 1 Semester A.

Note 2: Students may alter the study path and courses can be taken in any order or in any year of study provided pre-requisite and pre-cursor requirements are satisfied and all graduation requirements could be met within the normative study period.

Note 3: Students can take Major electives from Year 2 depending on their overall study plan.

Model Study Path for BENGEGU3 BME 2019 Cohort - Advanced Standing Ib (Optional CES mode)
(for those who are required to complete MA1200)

| Yr | Sem | Major Requirements ⁺ | | | | | | University Requirements | | CUs |
|---------------------------------|-----|---------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|---------------------------------------------------------------------|------------------------------------------------------------------------------|---------------------------------------------------|---------------------------------------------------------------------|-----------------------------------------|----------|--------------------|
| 1 | A | PHY1201 General Physics I (3) or BCH1100 Chemistry (3) or BCH1200 Discovery in Biology (3) [#] | BME2029 ⁺ Electrical and Electronic Principles (3) | CSpC 2: CS1102 ⁺ Introduction to Computer Studies (3) | BME2105 ⁺ Introduction to Biomedical Engineering (3) | BME2036 ⁺ Engineering Computing (3) | Pre-requisite: MA1200 Calculus and Basic Linear Algebra I (3) | English (3) | | 18 ⁺ |
| | B | BME2102 ⁺ Introduction to Biomechanics (3) | BME2121 ⁺ Artificial Intelligence in Biomedical Engineering (3) | CSpC 2: CS1102 ⁺ Introduction to Computer Studies (3) | BME2103 ⁺ Medical Biotechnology in Imaging and Measurement (3) | BMS2801 ⁺ Molecules and Cells (3) | CSpC 2: MA1201 Calculus and Basic Linear Algebra II (3) | English (3) | | 18 ⁺ |
| | S | | | | | | | Reserve for missed courses | | |
| 2 | A | BME4103 Bio-safety and Security (3) | BME3123 Materials for Biomedical Engineering (3) | BME3121 Biomedical Signals and Systems (3) | | BME2104 ⁺ Tissue Engineering (3) | MA2177 ⁺ Engineering Mathematics & Statistics (3) | | CCIV (3) | 18 |
| | B | BME3102 Human Quantitative Physiology (3) | CS4465 Computational Biology and Bioinformatics (3) | BME3103 Bio-sensors and Bio-devices (3) | BME2122 ⁺ Biological Thermofluids (3) | | Major Elective 1 (3) | | | 15/18 ⁺ |
| | S | | | | | | | GE 1 (3) | GE 2 (3) | 6 |
| 3 | A | BME4102 Final Year Project (3) | BME4101 Biomedical Instrumentation (3) | CES FS4001 (4) | BME3104 Health Maintenance and Wellness Technology (3) | | | | | 13 |
| | B | BME4102 Final Year Project (6) | BME4066 Professional Engineering Practice (3) | CES FS4001 (4) | BME3104 Health Maintenance and Wellness Technology (3) | Major Elective 2 (3) | | | | 16 |
| | S | | | | | Reserve for missed Elective courses / | | Reserve for missed courses | | |
| () indicates number of credits | | | | | | | | Total credits (minimum): 104/107 | | |

⁺ Up to 3 credit units of core courses have been waived for students admitted with Advanced Standing I from the B1 and B2 level courses upon admission based on the academic background of students. Prerequisites which are not part of the Major Requirement are waived for students admitted with Advanced Standing. Students with a course waived should take CS1102 in one of the semesters in Year 1 to balance their workload; students who do not receive any course waiver should take a GE English in Year 2 Semester B if the loading exceeds 18 credit units in a semester.

[#] Students will be pre-registered into one of the 3 courses based on their academic background if the course has not been waived.

Note 1: Students are required to take MA1201 and CS1102 or CS1302 as College/School-specified Courses (CSpC). Students may also be required to take MA1200 as a prerequisite subject to the result of the placement test arranged by the MA department at the end of August before Year 1 Semester A.

Note 2: Students may alter the study path and courses can be taken in any order or in any year of study provided pre-requisite and pre-cursor requirements are satisfied and all graduation requirements could be met within the normative study period.

Note 3: Students can take Major electives from Year 2 depending on their overall study plan.