

HONG KONG METROPOLITAN UNIVERSITY
(Formerly The Open University of Hong Kong)

Programme Requirements for Bachelor of Engineering with Honours in Testing and Certification (BENGHTCJ)

To be eligible for the award of the **Bachelor of Engineering with Honours in Testing and Certification**, a student shall obtain the required number of credits specified for the Year of Entry, in courses prescribed and detailed in the course tables below.

For students admitted via Year 1 entry in or after 2021/22, via Year 2 entry in or after 2022/23 and via Year 3 entry in or after 2023/24, they must complete the four University Core Values Modules, namely Core Value I (Integrity), Core Value II (Fairness), Core Value III (Perseverance), and Core Value IV (Innovation) for graduation.

Year 1 Entry

A student admitted to the programme through Year 1 Entry is required to complete a total of 170 credits as prescribed below, of which no more than 40 credits should be taken at Foundation Level:

1. 115 credits of core courses in Tables 1, 2, and 3;
2. 25 credits of specialization courses from one of the elective specialization sets in Table 4;
3. 10 credits of English Language Enhancement courses*; and

** Note: Please consult the Programme Leader for the selection of English Language Enhancement courses posted on the University website (www.hkmu.edu.hk/FT_ENGLISH).*

4. 20 credits of purpose-designed General Education courses[#] in which 10 credits should be at Middle level course.

Note: Please refer to the updated list of purpose-designed General Education courses posted on the University website (www.hkmu.edu.hk/FT_GE).

Year 2 Entry

A student admitted to the programme through Year 2 Entry is required to complete a total of 130 credits as prescribed below, of which no more than 20 credits should be taken at Foundation Level:

1. 90 credits of core courses in Tables 2 and 3;
2. 25 credits of specialization courses from one of the elective specialization sets in Table 4;
3. 5 credits of English Language Enhancement courses*; and

** Note: Please consult the Programme Leader for the selection of English Language Enhancement courses posted on the University website (www.hkmu.edu.hk/FT_ENGLISH).*

4. 10 credits of Middle level purpose-designed General Education courses[#].
Note: Please refer to the updated list of purpose-designed General Education courses posted on the University website (www.hkmu.edu.hk/FT_GE).

Year 3 Entry

A student admitted to the programme through Year 3 Entry is required to complete a total of 85 credits as prescribed below:

1. 55 credits of core courses in Table 3;
 2. 25 credits of specialization courses from one of the elective specialization sets in Table 4;
 3. 5 credits of English Language Enhancement courses*; and
- * Note: Please consult the Programme Leader for the selection of English Language Enhancement courses posted on the University website (www.hkmu.edu.hk/FT_ENGLISH).*

Table 1: Core Courses (Foundation Level)

Course Code	Course Title	Credits	Course Level	Course Group for Honours Classification
MATH S141F	Algebra and Calculus	5	Foundation	-
SCI S101F	University Science	5	Foundation	-
SCI S110F ¹	Laboratory Safety and Good Laboratory Practice	5	Foundation	-
STAT S151F	Probability and Distributions	5	Foundation	-
TC S120F	Computer Applications for Test Engineers	5	Foundation	-

Table 2: Core Courses (Middle Level)

Course Code	Course Title	Credits	Course Level	Course Group for Honours Classification
BIOL S235F ¹	Biochemistry and Microbiology	5	Middle	b
ELEC S201F	Basic Electronics	5	Middle	b
ENGG S260F	Introduction to Material Science	5	Middle	b
STAT S251F	Statistical Data Analysis	5	Middle	b
TC S210F	Analytical Instruments	5	Middle	b
TC S280F	Principles of Product Design and Manufacturing Process Management	5	Middle	b
TC S290F	Guided Industrial Training	5	Middle	-

Table 3: Core Courses (Middle and Higher Level)

Course Code	Course Title	Credits	Course Level	Course Group for Honours Classification
TC S220F	Metrology and Calibration	5	Middle	b
TC S311F	Conformity Assessment and Laboratory Accreditation	5	Higher	b
TC S312F	Management Systems for Inspection and Certification Bodies	5	Higher	a
TC S319F	Quality Management for Science and Technology	5	Higher	b
TC S320F	Measurement Uncertainty and Test Method Development	5	Higher	b
TC S390F	Industrial Placement	5	Higher	-
TC S409F	Safety and Reliability for Science and Technology	5	Higher	a
TC S420F	Professional Practice and Ethics	5	Higher	a
TC S426F	Audit, Inspection and Certification	5	Higher	a
TC S490F	Testing and Certification Project	10	Higher	a

Table 4: Specialization Courses

Course Code	Course Title	Credits	Course Level	Course Group for Honours Classification
<i>Elective Set 1: Electrical & Electronic Testing & Certification</i>				
ELEC S241F	Electronic Circuit Design	5	Middle	b
TC S341F	Electrical Safety and Energy Efficiency	5	Higher	b
TC S342F	Electromagnetic Compatibility Measurement and Control	5	Higher	a
ENGG S301F ³	Project Management for Engineering	5	Higher	b
TC S415F ³	Standards and Practices for Testing & Certification	5	Higher	a
<i>Elective Set 2: Physical & Mechanical Testing & Certification</i>				
TC S330F	Physical and Mechanical Behaviour of Materials	5	Higher	b
TC S331F	Principles of Physical and Mechanical Materials Testing	5	Higher	b
TC S332F	Materials Characterization and Testing	5	Higher	a
ENGG S301F ³	Project Management for Engineering	5	Higher	b
TC S415F ³	Standards and Practices for Testing & Certification	5	Higher	a

Course Code	Course Title	Credits	Course Level	Course Group for Honours Classification
<i>Elective Set 3: Chemical & Microbiological Testing & Certification</i>				
BIOL S351F ¹	Microbiology and Toxicology	5	Higher	b
CHEM S350F ¹	Analytical Chemistry	5	Higher	b
SCI S352F ¹	Chemical and Microbiological Analytical Techniques	5	Higher	a
ENGG S301F ³	Project Management for Engineering	5	Higher	b
TC S415F ³	Standards and Practices for Testing & Certification	5	Higher	a

Note:

1. List of changes in course codes:

<i>Original Course Code</i>	<i>Revised Course Code</i>	<i>Effective Term</i>
<i>SCI S235F</i>	<i>BIOL S235F</i>	<i>2019 Autumn</i>
<i>TC S110F</i>	<i>SCI S110F</i>	<i>2019 Autumn</i>
<i>TC S350F</i>	<i>CHEM S350F</i>	<i>2019 Autumn</i>
<i>TC S351F</i>	<i>BIOL S351F</i>	<i>2019 Autumn</i>
<i>TC S352F</i>	<i>SCI S352F</i>	<i>2019 Autumn</i>

2. If students wish to retake counterpart course(s) in e-learning mode, they should seek Programme Leader's approval, with due consideration of factors such as clash of timetabling and availability of distance learning counterparts, etc.
3. With effect from 2021 Spring Term, the following courses have been replaced:

<i>Specialization</i>	<i>Original Courses</i>	<i>Replacement Courses</i>
<i>Electrical & Electronic</i>	<i>TC S345F and TC S445F</i>	<i>ENGG S301F and TC S415F</i>
<i>Physical & Mechanical</i>	<i>TC S335F and TC S435F</i>	
<i>Chemical & Microbiological</i>	<i>TC S355F and TC S455F</i>	

Students who have successfully completed **both** of the original courses are deemed to have satisfied the requirement of **both** ENGG S301F and TC S415F.

Honours Classification

For the purpose of honours classification of the **Bachelor of Engineering with Honours in Testing and Certification** programme, the weighted grade point average (WGPA) will be calculated as follows:

- (1) Group (a) courses shall consist of TC S490F (10 credits) and the best 30 credits (in terms of course result) from the courses listed in Tables 3 and 4.

- (2) Group (b) courses:
 - (a) For Year 1 and Year 2 Entry, group (b) courses shall consist of the best 40 credits (in terms of course result) from the courses listed in Tables 2, 3 and 4, where such credits are not taken into account in Group (a) courses;
 - (b) For Year 3 Entry, group (b) courses shall consist of the best 35 credits from the courses listed in Tables 3 and 4, where such credits are not taken into account in Group (a) courses.
- (3) Group (a) is weighted at twice the value of Group (b).

Last update: November 2022