

3.6 Master of Engineering (MEng)

3.6.1 Admission requirements

To be considered for admission to the MEng (Research) and MEng (Structured) programmes, you must:

- hold at least a BEng, a BScHons, another relevant four-year bachelor's degree, an MTech, or a PGDip (Eng); *or*
- hold other academic degree qualifications and appropriate experience that have been approved by the Faculty Board. The relevant department's chairperson must make a recommendation regarding such qualification and experience to the Faculty Board.

Also refer to the postgraduate admission model in Figure 3.1 in Section 3.2 near the beginning of this chapter.

3.6.2 Selection

Irrespective of the admission requirements above, you must be selected for an MEng programme by the home department of the relevant field of study.

3.6.3 Application procedure

You must apply in writing to the Registrar for admission as a master's student. Provide the following information:

- details of qualifications already obtained,
- certified copies of the relevant certificates,
- your proposed field of study or subject of your thesis.

To obtain further details about the application procedure, please send an e-mail to the address at "Postgraduate enquiries" under the relevant home department in Section 1.1.3.

3.6.4 Duration and period of enrolment

Table 3.1 in Section 3.4.1 above shows the minimum, normal and maximum time available to you to complete the MEng (Structured) and the MEng (Research) as a full-time or part-time student. Note that the MEng (Structured) takes at least 12 months to complete if you are a full-time student, that is from February in the first year to January in the second year. Module scheduling constraints, however, often lead to full-time students only completing the programme at the end of the second year. Many full time MEng (Research) students complete the programme in two academic years by starting in February of the first year and receiving the degree in March of the third year.

3.6.5 Programme description: MEng (Structured)

The MEng (Structured) programme consists of 180 credits on NQF level 9. It comprises:

- a research assignment that contributes a minimum of 60 credits, but fewer than 90 credits, at NQF level 9;
- a number of required modules that contribute the balance of the required 180 credits at NQF level 9 after the credits of the research assignment have been considered; and
- possibly some supplementary modules.

The required and supplementary modules are prescribed by the chairperson of the relevant home department, while the topic of the research assignment is subject to the chairperson's approval. In the research assignment the emphasis is on the practical application of the theory and on assessing how valuable the impact of this application is.

Depending on their content, the modules in MEng (Structured) programmes may be presented in semester or block format. Particulars should be requested from the home department of the module (see the address for postgraduate enquiries under the home department in Section 1.1.3).

3.6.6 Programme description: MEng (Research)

For the MEng (Research) programme you must complete a thesis with a minimum credit value of 180 on NQF level 9.

Supplementary modules

In the following cases you must normally also complete supplementary modules:

- if you are admitted to any MEng (Research) programme without meeting the admission requirements.
- if supplementary modules are prescribed for all students in some MEng (Research) programmes (refer to the relevant department's website).

Supplementary modules are prescribed by the chairperson of your home department on the basis of:

- the requirements of the specific field of study.
- the specific objectives of your studies, your academic background and your experience.
- the availability of lecturing personnel who can lead students in the specific fields of study and modules.

Supplementary modules are normally taken from MEng (Structured), PGDip (Eng) or even BEng programmes.

Thesis requirements

You must satisfactorily complete a research project that has been approved by the chairperson of the relevant home department and submit a thesis on this project. It must be evident from your thesis that you are capable of independent scientific and technical investigation and interpretation of the results. You must add a declaration to your thesis, stating that the thesis has not been submitted at another university for a degree and that it is your own work. You must write the entire thesis yourself. The body of the thesis must form a coherent whole. This normally comprises an introduction, a background study, one or more chapters where the core contribution is developed or designed, a set of experiments by which the quality of the contribution is tested and a conclusion chapter. The thesis must also include a complete list of the references used.

The thesis has to satisfy the length restrictions imposed by your home department and it will not be submitted to the examiners if it does not comply with these restrictions.

If you want to graduate at the December graduation ceremony, you must submit your thesis for final examination on or before **1 September**, unless your home department specifies differently. If you want to graduate in March, you must normally submit your thesis on or before **1 November**, unless your home department specifies differently.

3.6.7 Examination and requirements to pass: MEng (Structured)

To be awarded the degree MEng (Structured), you must:

- attend all classes as required by the chairperson of the relevant home department;
- pass all required and supplementary modules, as well as the research assignment. This may include independent study, assignments and other forms of assessment. To pass you must achieve a minimum final mark of at least 50, or a final result of "satisfactorily completed".

How your final mark is determined

Your weighted average, which is determined based on the credit weighting of all required modules and the research assignment, is normally used as your final mark for the MEng (Structured). Your marks for supplementary modules are not used for determining your final mark.

3.6.8 Examination and requirements to pass: MEng (Research)

To be awarded the degree MEng (Research), you must:

- attend all classes as required by the chairperson of the relevant home department;
- pass all prescribed and supplementary modules. This may include independent study, assignments and other forms of assessment. To pass you must have achieved a final mark of at least 50, or a final result of "satisfactorily completed". These modules must be passed as soon as possible. You cannot submit your thesis to the examiners before you have passed these modules;
- satisfactorily complete an oral examination;
- obtain a final mark of at least 50 for your thesis examination; and
- submit a journal article on your thesis research, which has been approved by your supervisor(s) (or when requested by the departmental chairperson, if the requirement for an oral examination was waived for you). Your supervisor(s) may decide whether or not the article will be submitted to a journal or a conference. Even if the thesis is classified as confidential or secret, you must still submit the article.

You must normally be present at your host department when the oral examination is conducted.

Details about the examination process are given in the Faculty's "Postgraduate Processes for the Faculty of Engineering" (Section 1.6 above indicates how to access this document).

How your final mark is determined

Only the mark awarded for your thesis is normally used to determine your final mark for the MEng (Research). Your marks for supplementary modules are not used for determining the final mark.

3. Postgraduate Programmes

In this chapter you will find Faculty-wide rules that apply to postgraduate study in engineering at this University. Please contact the relevant departmental chairperson for further details. For contact details, see Section 1.1.3 in the chapter "General Information" above.

3.1 Qualifications and fields of study

Qualifications

The Faculty awards the following postgraduate qualifications:

Please note: Figure 3.1 in Section 3.2 illustrates the postgraduate structure and admission paths.

- **PGDip (Engineering): Postgraduate Diploma in Engineering**
The postgraduate diploma comprises an in-depth study in preparation for a master's programme or a broadened study involving more than one engineering discipline. The PGDip (Eng) does not lead to registration as a professional engineer.
- **PGDip (Engineering Science): Postgraduate Diploma in Engineering Science**
The postgraduate diploma comprises an in-depth study in preparation for a master's programme in engineering science.
- **MEng: Master of Engineering**
Two MEng qualifications are offered by the Faculty:
 - The MEng (Structured) is based on coursework and the emphasis is on the advanced application of engineering sciences in design.
 - The MEng (Research) consists of a research project, which must culminate in a satisfactory thesis about the research project.
- **MEngSc: Master of Engineering Science**
Two MEngSc qualifications are offered by the Faculty:
 - The MEngSc (Structured) is based on coursework and the emphasis is on the advanced application of engineering sciences.
 - The MEngSc (Research) consists of a research project that must culminate in a satisfactory thesis about that research project.
- **PhD: Doctor of Philosophy**
The PhD degree programme comprises a research project and a dissertation on that project. The Faculty will only award the degree if the candidate has generated new knowledge through research.
- **DEng: Doctor of Engineering**
The DEng may be awarded to candidates whose research has, over a number of years, made a substantial contribution towards humanity's knowledge in the field of engineering.

The following qualification has been phased out:

- **MScEng: Master of Science in Engineering**
The last students started in this programme in February 2011.

Fields of study

The PGDip (Engineering), MEng (Structured), MEng (Research) and PhD can be awarded in the following fields of study (home departments are indicated in brackets):

- Chemical Engineering (Department of Chemical Engineering)
- Civil Engineering (Department of Civil Engineering)
- Electrical Engineering (Department of Electrical and Electronic Engineering)
- Electronic Engineering (Department of Electrical and Electronic Engineering)
- Engineering Management (Department of Industrial Engineering)
- Industrial Engineering (Department of Industrial Engineering)
- Mechanical Engineering (Department of Mechanical and Mechatronic Engineering)
- Mechatronic Engineering (Department of Mechanical and Mechatronic Engineering)

Further, the Faculty offers the following qualifications and fields of study (the organisational unit that hosts each one is indicated in brackets):

- PGDip (Engineering Science) (Institute for Biomedical Engineering)
- MEngSc (Structured) in Biomedical Engineering (Institute for Biomedical Engineering)
- MEngSc (Research) in Biomedical Engineering (Institute for Biomedical Engineering)

- MEngSc (Research) aimed at interdisciplinary study (can be offered by any of the Faculty's departments)
- PhD in Biomedical Engineering (Institute for Biomedical Engineering)

Unless stated otherwise, the arrangements given below for the PGDip (Engineering), MEng and PhD also apply to the corresponding programmes in engineering science and biomedical engineering.

Not all the programmes, fields of study and postgraduate modules are presented in a given year.

3.2 Postgraduate admission model for the Faculty of Engineering

The postgraduate programme structure and paths for admission are illustrated in Figure 3.1 below and apply to all postgraduate students who have been admitted from 2005 onwards. If you do not meet the qualification requirements shown in the model, the Faculty Board must first approve your admission to the relevant postgraduate programme.

The credit values in Figure 3.1 correspond to 1 credit for 10 hours of work for you as a student. The NQF levels refer to the National Qualification Framework.

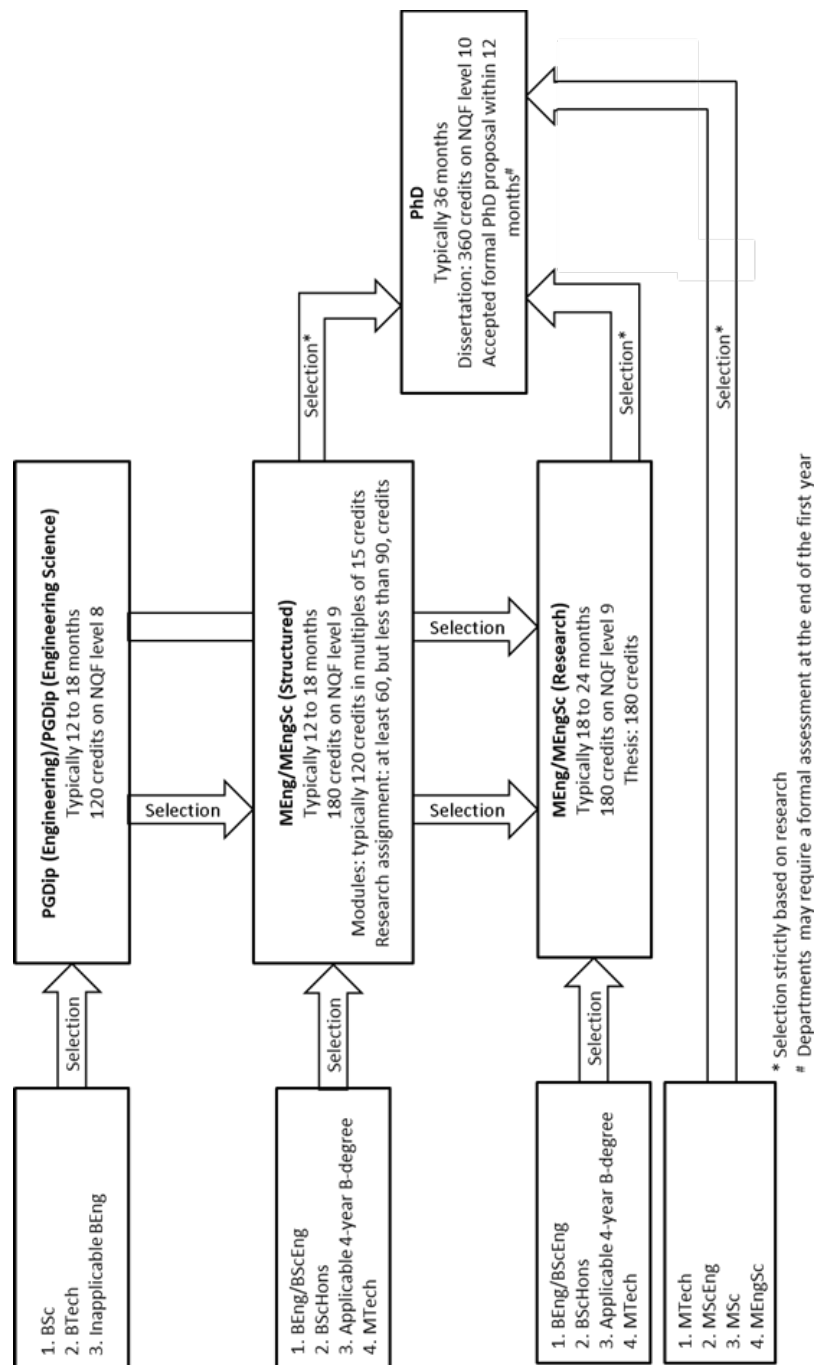


Figure 3.1: Postgraduate admission model

3.3 Recognition of prior learning

Sections 2.4.2.2 and 2.4.2.7 in the chapter "Undergraduate Programmes", regarding the recognition of modules that you have completed elsewhere, also apply here, except for the following:

- Exemption from module(s) can be granted on the strength of short courses you have completed that fall outside of the HEQSF (in other words, non-credit-bearing short courses), on condition that the course contents, duration and assessment of the short course are at least equivalent to the same of the relevant module(s).
- If you hold the required qualification for admission, but did not perform well enough, the departmental committees for Recognition of Prior Learning / Credit Accumulation and Transfer (RPL/CAT) may recognise supplementary learning and work experience to grant you admission, provided that your learning and experience show that you now have the potential to complete the relevant programme successfully.
For example, if you did not achieve 60% in the final year of your previous qualification, but you have completed advanced projects successfully, then an RPL/CAT committee may allow you to enrol for a master's degree.
- Departmental RPL/CAT committees can consider recognising your work experience and projects for module credits, but not for research modules. Note that such work experience and projects must be of an appropriate scope and advanced nature.

3.4 Provisions regarding enrolment and conversion of programmes

3.4.1 Periods of enrolment

Table 3.1 below shows the following for the respective postgraduate programmes:

- the minimum number of years you must be enrolled,
- for how long you can normally expect to be enrolled,
- how many years you may enrol without having to apply for readmission (that is, the maximum period of enrolment for each postgraduate programme, as approved by the Faculty Board in 2004), and
- the year you will require permission for readmission, if you have not completed the programme by then.

Table 3.1: Periods of enrolment for postgraduate programmes

Programme	Years of Enrolment								
	1	2	3	4	5	6	7	8	9
PGDip (Eng) Full-time	M	X	-	-	-	-	-	-	-
PGDip (Eng) Part-time	M	F	X	-	-	-	-	-	-
MEng (Structured) Full-time	M	F	X	-	-	-	-	-	-
MEng (Structured) Part-time	M	N	F	X	-	-	-	-	-
MEng (Research) Full-time	M	N	F	X	-	-	-	-	-
MEng (Research) Part-time	M	N	N	F	X	-	-	-	-
MEngSc (Structured) Full-time	M	F	X	-	-	-	-	-	-
MEngSc (Structured) Part-time	M	N	F	X	-	-	-	-	-
MEngSc (Research) Full-time	M	N	F	X	-	-	-	-	-
MEngSc (Research) Part-time	M	N	N	F	X	-	-	-	-
PhD Full-time (after master's)	M	M	N	F	X	-	-	-	-
PhD Full-time (after BEng, no master's)	M	M	M	N	F	X	-	-	-
PhD Part-time (after master's)	M	M	N	N	N	F	X	-	-
PhD Part-time (after BEng, no master's)	M	M	M	N	N	N	F	X	-

Key:

M	Minimum (mandatory) enrolment period. (Under exceptional circumstances the degree may be completed in this period)	Normal maximum period of enrolment
N	Normal enrolment after minimum. (The period required to complete the degree normally spans M and N)	
F	Final concessional year (may register without having to apply for readmission)	
X	Enrolment only if readmission has been approved by the Faculty Board or, for a PhD, the Senate.	Allowed in exceptional circumstances
-	Further registrations normally not allowed	

3.4.2 Continued enrolment during the maximum period of enrolment

You must register as a student every year for the full duration of your studies, until you are awarded the degree or diploma concerned (see the section "Continuation of Registration for Postgraduate Programmes" in Part 1 of the University Yearbook), except if the Faculty Board approves an interruption of your studies (consult Section 3.4.4, "Interruption of studies", below).

You must make sufficient progress in your studies each year to be permitted to register again. If your progress is insufficient, the relevant departmental chairperson may recommend to the Faculty Board that the Board prevent you from continuing your postgraduate studies. The Faculty Board could, among other things, consider the following:

- whether it is reasonable to expect you to complete the programme within the relevant maximum period of enrolment, taking into account your progress to date; and
- to what extent you have, to date, shown that you can work independently, regarding assignments, theses and dissertations.

3.4.3 Continued enrolment after the maximum period of enrolment

After the normal maximum enrolment period, you may only re-register as a postgraduate student if:

- you apply to be readmitted in order to continue your studies:
 - to the chairperson of the relevant department
 - by **15 January** of the year in which you want to continue your enrolment;
- the particular departmental chairperson recommends approving the application; and
- as a PGDip (Eng), MEng or MEngSc student, you have obtained the Faculty Committee's permission; *or*
as a PhD student, you have obtained the Senate's permission, on the Faculty Board's recommendation.

The Faculty Committee and Board will normally only once grant or recommend that your permitted maximum period of enrolment be extended.

See Table 3.1 above in Section 3.4.1 for the maximum periods of enrolment for the respective postgraduate programmes.

3.4.4 Interruption of studies

The Faculty Board may approve an interruption of your studies according to the section "Interruption of Master's and Doctoral Studies" in Part 1 of the Yearbook (also see the section "Continuation of Registration for Postgraduate Programmes" in Part 1). Otherwise you must register as a student every year for the full duration of your studies until you are awarded the degree or diploma concerned. If the Faculty Board has approved your interruption of studies, the particular period will not be taken into account when it is determined whether or not you have exceeded the maximum allowed enrolment period. If the Faculty Board has not approved the interruption, the period of the interruption will be taken into account.

If you interrupted your studies without approval from the Faculty Board, you must apply anew at the relevant department for admission before you may enrol again. If the interruption was for two or more years, the relevant department may require you to start the programme over, with a different research topic (if applicable).

3.4.5 Permission required for part-time enrolment

If you want to enrol part time, you must obtain approval from the departmental chairperson of your prospective home department. To get this approval, you must show that you will be a bona fide part-time student. Follow your prospective home department's procedures for submitting your application to study part time.

The Faculty will normally not allow you to change from full-time to part-time enrolment in its postgraduate programmes. In exceptional circumstances you may submit an application for such a change during the normal duration of the programme. Follow the procedure of your home department. The relevant departmental chairperson will make a recommendation to the Dean, who will consider permission for the change.

3.4.6 Converting between postgraduate programmes

3.4.6.1 From PGDip (Eng) to MEng

If your case is deserving, the Faculty Board may recommend to the Senate that your registration for a PGDip (Eng) be converted to registration for an MEng. You may convert if you:

- have progressed above the expected standards in your studies and
- want to continue studying at a master's level.

3.4.6.2 From MEng to MScEng

Since the MScEng programme is being phased out, you may no longer convert to it.

3.4.6.3 From MEngSc and MEng (Research) to PhD

If your case is deserving, the Faculty Board may recommend to the Senate that your registration for a master's degree in engineering may be converted to registration for a doctorate degree. This applies only to registration for MEngSc and MEng (Research). Applications are handled according to the rules in Part 1 of the Yearbook.

Disclaimer:

The content above comes from the 2025 Engineering Yearbook. Make sure to consult the full **Engineering Yearbook** to see this extract in context and to check if there have been any changes. Take special note of additional information in the yearbook under section ***3.1 Qualifications and fields of study***.