

**SCHOOL OF MATERIALS SCIENCE AND ENGINEERING
COURSEWORK REQUIREMENTS FOR DOCTOR OF PHILOSOPHY (MSE) STUDENTS**

For students admitted before AY2026-2027

To complete before PhD Qualifying Examination (QE)

All students are required to complete the following components before sitting for the PhD Qualifying Examination (QE), which must be completed between the 18th and 24th month of candidature.

S/N	Component	Type	Remarks
1	18 Academic Units (AU) of Elective Courses - At least 9 AU must be letter graded. AU earned from course exemptions, credit transfers, pass/fail courses, and undergraduate-level courses are ungraded. - At least 9 AU must be courses offered by Schools under the College of Engineering (including MSE).	Credit bearing	Students must attain a minimum CGPA of 3.50. Provost Graduate Award (PGA) and Nanyang President's Graduate Scholarship (NPGS) recipients must attain a minimum CGPA of 4.00. Students who do not meet the minimum CGPA after completing 18 AU will be required to read additional courses until the minimum CGPA requirement is met.
	Elective Course Exemptions (for Master's Degree Holders)		
	Students who have previously completed a Master's degree may be eligible for exemption from up to two elective courses (maximum of 6 AU), subject to the following criteria: - The course completed in fulfilment of the Master's degree has equivalent course content to an NTU postgraduate course. Students are expected to conduct their own research and identify suitable course matches. - The course was completed within the last five years. - The medium of instruction for the completed course was English. All course exemption requests are subject to the approval of the respective NTU course instructor and the Associate Chair (Graduate). The AU earned from course exemptions will be ungraded.		

2	ERWA01 Epiguem Research Integrity Course SLKC01 Anti-Harassment at our Workplace <i>(Applicable to students admitted from AY2023-2024 onwards)</i> GP8000 Artificial Intelligence Literacy <i>(Applicable to students admitted from AY2024-2025 onwards)</i>	Non-credit bearing	Students will be pre-registered for these courses in their first semester .
3	HWG703 Graduate English	Non-credit bearing	Compulsory for full-time international students who attained a Bachelor's or Master's degree from an institution where English is NOT the primary medium of instruction and assessment. Singaporean, Singapore PR, and part-time students may be exempted from the course. GRE, TOEFL or IELTS results are not accepted as a basis for exemption. Students are strongly encouraged to register for this course in their first semester. Those unable to secure a vacancy will be given priority registration in the following semester.
4	HWG702 University Teaching for Teaching Assistants	Non-credit bearing	Compulsory for all full-time students. Part-time students may be exempted from the course. Students will be pre-registered for the course in their second semester. Students must complete (or be exempted from) HWG703 Graduate English before taking HWG702 University Teaching for Teaching Assistants.

5	Seminar Attendance (Year 1 and Year 2)	Non-credit bearing	Students are required to submit the fully endorsed seminar attendance forms for both Years 1 and 2 of their candidature when submitting their QE documents. Students must have attended the following at the point of QE submission: • 10 NTU/MSE Seminars (Year 1) • 3 MSE PhD Qualifying Examination or Oral Examination Presentations (Year 1) • 10 NTU/MSE Seminars (Year 2) • 3 MSE PhD Qualifying Examination or Oral Examination Presentations (Year 2)
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To complete before PhD Thesis Submission

All students are required to complete the following components before submitting their PhD thesis, which must be submitted before the end of the student's maximum candidature period.

S/N	Component	Type	Remarks
6	ERWA02 Epiguem Research Integrity Re-Certification Course	Non-credit bearing	Students will be pre-registered for this course in the third year of their candidature and must complete the course by the end of their third year of candidature.
7	Communication Course (39 hours)	Non-credit bearing	Students are required to complete a minimum of 39 hours of communication training under the Communications / Writing Training Programme before thesis submission. MSE students are recommended to fulfil this requirement by completing either MS8001 Graduate Communication Course <u>OR</u> HWG704 Research Communication for Graduate Studies.

8	3-Minute Thesis (3MT) Presentation Symposium	Non-credit bearing	All students are required to participate in the 3MT Presentation Symposium before thesis submission. The 3MT is conducted once a year, and students may participate in any year of their candidature.
9	Scholarly Communication & Impact Seminar	Non-credit bearing	Students are strongly encouraged to complete this seminar during the first year of their candidature.
10	Seminar Attendance (Year 3 and Year 4)	Non-credit bearing	Students are required to submit the fully endorsed seminar attendance forms for both Years 3 and 4 of their candidature when submitting their PhD thesis. Students must have attended the following at the point of thesis submission: • 10 NTU/MSE Seminars (Year 3) • 3 MSE PhD Qualifying Examination or Oral Examination Presentations (Year 3) • 10 NTU/MSE Seminars (Year 4) • 3 MSE PhD Qualifying Examination or Oral Examination Presentations (Year 4)