



**ACADEMIC STRUCTURE
HANDBOOK FOR
GRADUATE STUDIES**

AY 2022 - 23

NANYANG TECHNOLOGICAL UNIVERSITY

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NANYANG TECHNOLOGICAL UNIVERSITY
The Academic Structure
for Graduate Studies

Last updated: 15 July 2022

The University's academic structure for its graduate programmes which provides flexibility in students' learning experience while maintaining high academic standards, is based on the Academic Unit System.

The main feature of the Academic Unit System is the use of academic units (AU) for measuring academic workload.

1. Academic Calendar

The academic year consists of two semesters or three trimesters. Each semester includes 13 teaching weeks and 3 weeks for revision and examinations, whereas each trimester includes 12 teaching weeks and 1 week for examinations.

2. Academic Units

Under the Academic Unit System, each course is assigned a certain number of AU.

The AU is a measure of the student's workload associated with both class attendance and preparation.

In general, a course is worth 3 AU. One AU is equivalent to 13 teaching hours.

3. Candidature and Graduation Requirements

To be eligible for the award of a Doctorate or Master's degree from NTU, a student must fulfil the following conditions:

- obtain the total AU required for the completion of the programme
- fulfil the course requirements for the degree programme
- fulfil the minimum Cumulative Grade Point Average (CGPA) for graduation
- fulfil the minimum candidature as required by the degree programme
- complete thesis examination and oral defence for the PhD programme, and thesis examination for Master's by Research programme
- fulfil 50% of the total AU required with courses from their Academic College (for research programmes except Interdisciplinary Graduate Programme)
- fulfil the minimum AU of graded courses from NTU (for research programmes)
- satisfy all other requirements prescribed by the programme of study or School

3.1 Academic Unit (AU) Requirement

For each degree programme, the number of AU that students must obtain in order to graduate is as follows:

Programme	Total AU Requirement
Nanyang Business School (College of Business)	
Executive MBA Programme (Shanghai)	45.0
Master of Business Administration Bilingual	
Master of Business Administration (Nanyang Fellows)	
Executive MBA Programme (English)	48.5
Master of Business Administration	
Master of Business Administration (Banking & Finance)	
Master of Business Administration (Business Analytics)	
Master of Business Administration (Human Capital Management)	
Master of Business Administration (Marketing Management)	
Master of Business Administration (Strategy & Innovation)	49.5
Master of Business Administration (Sustainability & Innovation)	
Professional MBA	64.0
Professional MBA (International Trading)	
Master of Business Administration (Waseda)	30.0
Master of Science (Human Capital Management)	
Master of Science (Management)	
Master of Science (Strategy)	
Master of Science (Technology Management)	
Master of Science (Accountancy)	36.0
Master of Science (Asset & Wealth Management)	
Master of Science (Business Analytics)	
Master of Science (Finance)	
Master of Science (Marketing Science)	37.5
Master of Science (Financial Engineering)	
Master of Science (Accountancy) with Specialisation in Data Analytics	48.0
College of Engineering	
Master of Science (Artificial Intelligence)	30.0
Master of Science (Civil Engineering)	
Master of Science (Communications Engineering)	
Master of Science (Computer Control & Automation)	
Master of Science (Cyber Security)	
Master of Science (Data Science)	
Master of Science (Electronics)	
Master of Science (International Construction Management)	
Master of Science (Manufacturing Systems & Engineering)	
Master of Science (Maritime Studies)	
Master of Science (Materials Science & Engineering)	
Master of Science (Mechanical Engineering)	

Master of Science (Power Engineering)	
Master of Science (Project Management)	
Master of Science (Signal Processing)	
Master of Science (Smart Manufacturing)	
Master of Science (Supply Chain & Logistics)	
Master of Science (Supply Chain Engineering)	
College of Humanities, Arts & Social Sciences	
Master of Arts (Museum Studies & Curatorial Practices)	
Master of Mass Communication	
Master of Media & Communication	
Master of Public Administration - Chinese	
Master of Public Administration - English	
Master of Science (Applied Economics)	
Master of Science (Applied Gerontology)	30.0
Master of Science (Information Studies)	
Master of Science (Information Systems)	
Master of Science (Knowledge Management)	
Master of Science (Managerial Economics) - Chinese	
Master of Science (Managerial Economics) - English	
Master of Social Sciences (China & Global Governance)	
Master of Arts (Translation & Interpretation)	40.0
College of Science	
Master of Science (Analytics)	
Master of Science (Biomedical Data Science)	30.0
Master of Science (Financial Technology)	
Master of Science (Precision Scientific Instrumentation)	32.0
Colleges of Science and Engineering	
Master of Science (Chemical Sciences & Instrumentation)	30.0
S. Rajaratnam School of International Studies	
Master of Science (Asian Studies)	
Master of Science (International Political Economy)	27.0
Master of Science (International Relations)	
Master of Science (Strategic Studies)	
Nanyang Technopreneurship Centre	
Master of Science (Technopreneurship & Innovation) - Chinese	
Master of Science (Technopreneurship & Innovation) - English	30.0

3.2 Period of Candidature

The period of candidature for each programme is as follows:

3.2.1 Research Programmes

Programme	Period of Candidature	
	Full-Time (Years)	Part-Time (Years)
Doctor of Philosophy (All Schools except LKCMedicine)	2 - 5	3 - 5
Doctor of Philosophy (LKCMedicine)	3 - 5	
Master's Degree	1 - 3	

For part-time PhD and Master's students admitted before AY2020, the maximum period are 7 years and 4 years respectively.

3.2.2 Coursework Programmes

Programme	Period of Candidature	
	Full-Time (Year/Trimester)	Part-Time (Year/Trimester)
Nanyang Business School (College of Business)		
Executive MBA Programme (English)	-	4 - 8 trimesters
Executive MBA Programme (Shanghai)	-	4 - 8 trimesters
Master of Business Administration	1 - 2	-
Master of Business Administration (Banking & Finance)	1 - 2	-
Master of Business Administration (Human Capital Management)	1 - 2	-
Master of Business Administration (Marketing Management)	1 - 2	-
Master of Business Administration (Strategy & Innovation)	1 - 2	-
Master of Business Administration (Business Analytics)	1 - 2	-
Master of Business Administration (Sustainability & Innovation)	1 - 2	-
Master of Business Administration (Nanyang Fellows)	1 - 2	-
Professional MBA	-	5 - 15 trimesters
Professional MBA (International Trading)	-	5 - 15 trimesters
Master of Business Administration (Waseda)	1 - 2	5 - 15 trimesters
Master of Business Administration Bilingual	-	4 - 15 trimesters
Master of Science (Accountancy)	1 - 2	2 - 4
Master of Science (Accountancy) with Specialisation in Data Analytics	4 - 6 trimesters	-
Master of Science (Asset & Wealth Management)	1 - 2	1 - 4
Master of Science (Business Analytics)	1 - 3	1 - 4
Master of Science (Finance)	1 - 2	-

Master of Science (Finance) – Double Master with Peking University	2 – 4	-
Master of Science (Financial Engineering)	1 - 2	2 - 4
Master of Science (Human Capital Management)	3 - 6 trimesters	4 - 9 trimesters
Master of Science (Management)	3 - 6 trimesters	4 - 9 trimesters
Master of Science (Marketing Science)	1 - 2	-
Master of Science (Strategy)	3 - 6 trimesters	4 - 9 trimesters
Master of Science (Technology Management)	1 - 1.5	-
College of Engineering		
Master of Science (Artificial Intelligence)	1 - 2.5	2 - 4
Master of Science (Civil Engineering)	1 - 3	2 - 4
Master of Science (Communications Engineering)	1 - 3	2 - 4
Master of Science (Computer Control & Automation)	1 - 3	2 - 4
Master of Science (Cyber Security)	1 - 2.5	2 - 4
Master of Science (Data Science)	1 - 2.5	2 - 4
Master of Science (Electronics)	1 - 3	2 - 4
Master of Science (Green Electronics)	2 - 3	-
Master of Science (Integrated Circuit Design)	2 - 3	-
Master of Science (International Construction Management)	1 - 3	2 - 4
Master of Science (Manufacturing Systems & Engineering)	1 - 2	2 - 4
Master of Science (Maritime Studies)	1 - 3	2 - 4
Master of Science (Materials Science & Engineering)	1 - 3	2 - 4
Master of Science (Mechanical Engineering)	1 - 2	2 - 4
Master of Science (Power Engineering)	1 - 3	2 - 4
Master of Science (Project Management)	1 - 3	2 - 6
Master of Science (Signal Processing)	1 - 3	2 - 4
Master of Science (Smart Manufacturing)	1 - 2	2 - 4
Master of Science (Supply Chain & Logistics)	1 - 2	2 - 4
Master of Science (Supply Chain Engineering)	1 - 2	2 - 4
College of Humanities, Arts & Social Sciences		
Master of Arts (Museum Studies & Curatorial Practices)	1 - 3	2 - 4
Master of Arts (Translation & Interpretation)	1.5 - 2.5	-
Master of Mass Communication	1 - 2	2 - 4
Master of Media & Communication	1 - 2	2 - 4
Master of Public Administration - Chinese	1 - 3	2 - 4
Master of Public Administration - English	1 - 2	2 - 4
Master of Science (Applied Economics)	1 - 2	1.5 - 4
Master of Science (Applied Gerontology)	1 - 2	1.5 - 4
Master of Science (Information Studies)	1 - 2	2 - 4
Master of Science (Information Systems)	1 - 2	2 - 4
Master of Science (Knowledge Management)	1 - 2	2 - 4
Master of Science (Managerial Economics) - Chinese	1 - 2	2 - 4
Master of Science (Managerial Economics) - English	1 - 2	2 - 4
Master of Social Sciences (China & Global Governance)	1 - 4	

College of Science		
Master of Science (Analytics)	1 - 2	2 - 4
Master of Science (Biomedical Data Science)	1 - 2	2 - 4
Master of Science (Financial Technology)	1 - 2	2 - 4
Master of Science (Precision Scientific Instrumentation)	1 - 2	2 - 4
College of Science and Engineering		
Master of Science (Chemical Sciences & Instrumentation)	1 - 2	2 - 4
Lee Kong Chian School of Medicine		
Graduate Diploma in Sports Medicine	-	1 - 2
Nanyang Technopreneurship Centre		
Master of Science (Technopreneurship & Innovation) - Chinese	1 - 3	-
Master of Science (Technopreneurship & Innovation) - English	1 - 3	2 - 4
S. Rajaratnam School of International Studies		
Master of Science (Asian Studies)	1 - 3	2 - 4
Master of Science (Asian Studies) – Double Master with Warwick	1 - 3	-
Master of Science (International Political Economy)	1 - 3	2 - 4
Master of Science (Int'l. Political Economy) – Double Master with Warwick	1 - 3	-
Master of Science (International Relations)	1 - 3	2 - 4
Master of Science (International Relations) – Double Master with Warwick	1 - 3	-
Master of Science (Strategic Studies)	1 - 3	2 - 4
Master of Science (Strategic Studies) – Double Master with Warwick	1 - 3	-

3.3 Minimum AU of Graded Courses (for Research Programmes)

The minimum AU of graded courses are as follows:

Programme	Minimum AU of Graded Courses Obtained From NTU
Masters by Research (All Schools except SPMS)	6
Master of Science (SPMS)	8
Doctor of Philosophy (All Schools except SPMS, CCEB Chemistry and IGS/IGP)	9
Doctor of Philosophy (SPMS)	12
Doctor of Philosophy (CCEB-Chemistry)	12
Doctor of Philosophy for All IGS/IGP Except the below IGS/IGP indicated	12
Doctor of Philosophy (IGS-Sustainable Earth) SCELSE	20
Doctor of Philosophy (IGP-SCELSE)	
Doctor of Philosophy (IGS-Sustainable Earth) EOS	24
Doctor of Philosophy (IGP-EOS) – Prior AY2021	
Doctor of Philosophy (IGP-EOS) – Wef AY2021	18

3.4 Minimum CGPA for graduation

Students in Coursework Programmes

A minimum CGPA of 2.50 is required at the completion of the programme of study.

Students in Research Programmes

A minimum CGPA of 3.00 and 3.50 is required for Master's and PhD programmes respectively after completion of all course requirements.

4. Curricular Requirements

4.1 Coursework Programmes

Students could opt for one of the following study programmes, where applicable:

- (a) Coursework & Dissertation; or
- (b) Coursework only

Students are advised to consult their School on the requirements for each study programme before deciding on their option.

The courses of study may comprise Core and Elective courses. Please refer to the School's website for the programme curriculum.

4.2 Research Programmes

4.2.1 Students in the Higher degree by Research pursue an independent but supervised research in an approved field of advanced study, at the end of which a thesis is submitted for examination.

4.2.2 Students are also required to complete a number of graduate-level courses, as follows:

Masters	At least 9 AU
Doctor of Philosophy	At least 12-24 AU

All PhD students admitted from AY2019 must complete the requirement of 3 AU of communication courses before thesis submission.

4.2.3 Students are to consult their School on the course requirements.

4.2.4 For PhD programme, students must undergo a Qualifying Examination/Confirmation Exercise within a period stipulated by the School. Before the Qualifying Examination/Confirmation Exercise, students must complete the ERI701 Epigeum Research Integrity Course.

4.2.5 In addition to being examined on the thesis, a student for the degree of Doctor of Philosophy must pass an oral examination on the subject matter of the thesis. The oral examination will be arranged and conducted by the School after thesis examination is completed.

4.2.6 All PhD students admitted from AY2019 must participate in a Three-Minute Thesis (3MT) Symposium before graduation. The symposium is conducted by Graduate College.

4.3. Transfer of Academic Units and Course Exemption

4.3.1. With prior endorsement of the Chair, students are allowed to take some courses from another university and transfer the AU earned from that university towards fulfilling the degree requirements of NTU. This could include participation in exchange and/or other similar programmes.

4.3.2. Former students who have completed courses or part of their degree with NTU may apply to transfer the credits that they have previously earned for relevant courses.

4.3.3. Students who have obtained relevant qualifications from another university prior to their admission to NTU may apply for exemption of equivalent courses. A student who has been granted exemption of course may be required to take another course of the same AU in lieu of the exempted course.

4.3.4. Only credits and qualifications earned within the last 5 years from the date of application will be considered for transfer of credits and exemptions.

4.3.5. Credits transferred and courses exempted are not included in CGPA computation but will be counted towards the AU requirement for graduation. For credits transferred from external institutions, the actual grades awarded by the external institution are reflected in the NTU transcript.

- 4.3.6. Graduate students may be considered for credit transfer and/or course exemption of up to 20% of total AU requirement for coursework students or up to 50% of total AU requirement for research students, unless otherwise specified by the School. Students should therefore consult their Schools on their programme and graduation requirements before they applying for credit transfer and/or course exemption.
- 4.3.7. Students who are allowed to transfer credits or are granted course exemption must also comply with the requirements in Section 3 above on Candidature and Graduation Requirements.
- 4.3.8. Application for transfer of credits and exemption of courses for new students should be submitted to the School (with relevant supporting documents) within the first semester/trimester of student's enrolment.
- 4.3.9. Requests for transfer of credits and course exemptions must be approved by the School Chair.

5. Registration of Courses

5.1. Online Course Registration

- 5.1.1. All students must register their courses online according to the schedule announced by the Office of Academic Services.
- 5.1.2. Students are to attend only the classes they have officially registered for. Students who join any classes without registration will not be allowed to sit for assessment(s) or examination(s) for the course(s) involved.

5.2. Outstanding Fees

Students with outstanding fees will be barred from course registration. Students must clear their outstanding fees before registering courses.

5.3. Add/Drop Courses

- 5.3.1 Students may add or drop any course provided this is done within the stipulated registration periods as announced by the Office of Academic Services.
- 5.3.2 A course that is dropped during the registration periods will not appear in the official transcript. A student who is still registered for a course after the registration periods but did not subsequently sit for assessment(s) or examination will be deemed to have read and failed the course. An 'F' will appear on his official transcript.

5.4. Academic Load

- 5.4.1 Students in Coursework Programmes
In general, full-time students may register up to 15 AU per term of study, while part-time students may register up to 9 AU per term of study.
- 5.4.2 Students in Research Programmes
Master's students may register up to 9 AU per term of study, while PhD students may register up to 15 AU per term of study.

6. Examinations and Grades

6.1. Assessment and Examinations

- 6.1.1. Continual Assessment (CA) is conducted in the form or mode that is suitable for the discipline of studies and content of the course. Feedback would be provided to students to enable them to improve on their learning during the academic term.
- 6.1.2. Final examination is generally held at the end of the semester or trimester. A student who is absent from any final examination without a valid reason, shall be deemed to have sat and failed the course.
- 6.1.3. Grade moderation may be applied to ensure consistency and fairness of assessment.
- 6.1.4. Students are not allowed to repeat courses that they have passed.
- 6.1.5. The grades for all attempts in all courses taken by a student are shown in his official transcript.

6.2. Grading System

- 6.2.1 The grading system used is the Grade Point Average System (GPA). Grades and grade points are assigned as follows:

Letter Grade	Grade Point
A+	5.00
A	5.00
A-	4.50
B+	4.00
B	3.50
B-	3.00
C+	2.50
C	2.00
D+	1.50
D	1.00
F	0.00

Grade (if any) for dissertation is not included in the computation of GPA.

- 6.2.2 The following non-letter grades and notations are also used:

- * - Course with Pass/Fail grading only
- AT - By attendance only
- IP - In Progress
- W - Withdrawal
- LOA/X - Absent (with valid reasons)

- 6.2.3 The Cumulative Grade Point Average (CGPA) represents the grade point average of all courses (including failed courses) attempted by a student. The computation of CGPA is as follows:

$$\frac{\text{SUM of (Grade Point x AU for course attempted to date)}}{\text{Total AU attempted to date}}$$

Only letter-graded courses i.e. courses with grades A+, A, A-, B-.. are included in the computation of CGPA. Courses where only Pass/Fail grades are given, where students were absent with valid reasons (i.e. given an 'LOA') or dropped after the Add/Drop period but within the deadline for withdrawal of courses (i.e. given a 'W'), and courses that are in progress or completed by attendance only (i.e. awarded an 'IP' or 'AT') are not included in the computation of CGPA.

Courses that students are exempted from, and courses from institutions that are approved for transfer of credits will not be counted in the computation of TGPA or CGPA.

- 6.2.4 The Term Grade Point Average (TGPA) represents the grade point average of all courses attempted by a student in any term of study. The computation of TGPA is as follows:

$$\frac{\text{SUM of (Grade Point x AU for course attempted in the term)}}{\text{Total AU attempted in the term of study}}$$

Term refers to semester or trimester which is the period of study for a programme. The method of computing the TGPA is similar to that for computing the CGPA.

- 6.2.5 The CGPA will be reflected in students' transcript.

- 6.2.6 An 'F' grade obtained in a course, and a new grade attained for the subsequent repeat, will both be reflected in the transcript. Both grades will also be counted in the computation of TGPA and CGPA.

6.3. Academic Standing

- 6.3.1 Students in Coursework Programmes

Satisfactory Academic Performance

In any term of study, a coursework student is considered to be making satisfactory progress if he attains a minimum TGPA and CGPA of 2.50.

Unsatisfactory Academic Performance

A coursework student with poor academic performance will be accorded the following academic standing and subjected to performance review:

- Academic Warning - if the student's TGPA or CGPA is less than 2.50 in any term of study.
- Academic Termination - if the student's TGPA is less than 2.50 for two consecutive terms of study or do not meet graduation requirements at the end of the term when he reaches his maximum candidature.

6.3.2 Students in Research Programmes

Satisfactory Academic Performance

In any term of study, a research student is considered to be making satisfactory progress if he satisfies the following conditions:

- Attain a minimum TGPA and CGPA of 3.00 for Master's programme and 3.50 for PhD programme; and
- Attain at least Grade Point 2.50 (grade C+) in every course; and
- Complete all course requirements within the confirmation period as prescribed under Qualifying Examination.

Unsatisfactory Academic Performance

A research student with poor academic performance will be accorded the following academic standing and subjected to performance review:

Type of Programme	Academic Warning	Failed to fulfil coursework requirements
Master	i. TGPA or CGPA < 3.00 in any term of study; or ii. Any course with Grade Point less than 2.50 (below C+ grade)	i. Fail to complete all course requirements within the confirmation period as prescribed under Qualifying Examination; or ii. TGPA < 2.50 in two consecutive terms; or
PhD	i. TGPA or CGPA < 3.50 in any term of study; or ii. Any course with Grade Point less than 2.50 (below C+ grade)	iii. TGPA < 3.00 in three consecutive terms.

Failure to fulfil coursework requirements may result in termination of financial aid and/or academic termination.

6.3.3 Appeal against academic termination on the grounds of extenuating circumstances may be made, subject to the following rules:

- The appeal must be submitted to the relevant School within 2 weeks after the release of course results or before the start of the next term, whichever is earlier.
- Only one appeal is allowed per candidature.