

1. You are advised to read the instructions to courses registration posted in STARS. Please refer to STARS for the schedule of registration.
2. The normal load is 17 AU and the maximum load is 20 AU. **When you are registering a course that will exceed your normal load, you can only do so after 5pm on your course registration day.** If you wish to read a course that will exceed your maximum load, you can apply online through this link: <https://raspberry.spms.ntu.edu.sg/overload/apply/default.aspx>. Please note that approval is granted to a specific course that you wish to overload.
3. The following courses are to be read during Semester 1 AY 2021/2022 (subject to pre-requisites). Students with Admission Year 2021 will have their core courses allocated during the online matriculation.
4. Please refer to URL for the most updated GER Core requirements – <https://www.ntu.edu.sg/spms/admissions/undergrad/core-courses>

MATH Year 1 (U21)			
Course Code	Course Title	Course Type	Course AU
MH1100	Calculus I	Core	4
MH1200	Linear Algebra I	Core	4
MH1300	Foundations of Mathematics	Core	4
PS0001	Introduction to Computational Thinking	Core	3
CC0003	Ethics & Civics in a Multi-Cultural World	ICC (U-Core)	2
CC0002	Navigating the Digital World	ICC (U-Core)	2
HW0001	Introduction to Academic Communication (For students who fail QET)		0

MATH - AMAS/PMAS/STAT Year 2			
Course Code	Course Title	Course Type	Course AU
MH2100	Calculus III	Core	4
MH2200	Groups and Symmetries	Core	3
MH2500	Probability and Introduction to Statistics	Core	4
ML0003	Kickstart your Career Success	GER CORE	1
*PS0003	Plan your Career Path	GER CORE	1
*PS8001	Defence Science	GER CORE	3

*Applicable for student admitted in AY19 onwards

MATH – Business Analytics Year 2			
Course Code	Course Title	Course Type	Course AU
MH2100	Calculus III	Core	4
MH2500	Probability and Introduction to Statistics	Core	4
BE1401	Business Operations and Process	Core	4
BU8601	Fundamentals of Management	Core	3
ML0003	Kickstart your Career Success	GER CORE	1
*PS0003	Plan your Career Path	GER CORE	1
*PS8001	Defence Science	GER CORE	3

*Applicable for student admitted in AY19 onwards

MATH - AMAS Year 3			
Course Code	Course Title	Course Type	Course AU
MH3101	Complex Analysis	Core	4

MATH – PMAS Year 3			
Course Code	Course Title	Course Type	Course AU
MH3101	Complex Analysis	Core	4
MH3600	Knots and Surfaces: Introduction to Topology	Core	4

MATH – STAT Year 3			
Course Code	Course Title	Course Type	Course AU
MH3510	Regression Analysis	Core	4

MATH – AMAS Major PE			
Course Code	Course Title	Course Type	Course AU
MH3300	Graph Theory	Major PE	4
MH3512	Stochastic Processes	Major PE	4
MH4311	Cryptography	Major PE	4
MH4320	Computational Economics	Major PE	4
MH4700	Numerical Analysis II	Major PE	4
MH4701	Mathematical Programming	Major PE	4
MH4702	Probabilistic Methods in OR	Major PE	4
MH4920	Supervised Independent Study I	Major PE	4
MH4921	Supervised Independent Study II	Major PE	4
MH4900	Final Year Project	Major PE	8

CZ4042	NEURAL NETWORK & DEEP LEARNING	Major PE	3
CZ2101	ALGORITHM DESIGN & ANALYSIS	Major PE	3
EE4476	Image Processing	Major PE	3

MATH – PMAS Major PE			
Course Code	Course Title	Course Type	Course AU
MH3210	Number Theory	Major PE	4
MH4200	Abstract Algebra II	Major PE	4
MH4300	Combinatorics	Major PE	4
MH4311	Cryptography	Major PE	4
MH4920	Supervised Independent Study I	Major PE	4
MH4921	Supervised Independent Study II	Major PE	4
MH4900	Final Year Project	Major PE	8

MATH - STAT Major PE			
Course Code	Course Title	Course Type	Course AU
MH3512	Stochastic Processes	Major PE	4
MH4320	Computational Economics	Major PE	4
MH4510	Statistical Learning and Data Mining	Major PE	4
MH4511	Sampling and Survey	Major PE	4
MH4513	Survival Analysis	Major PE	4
MH4701	Mathematical Programming	Major PE	4
MH4702	Probabilistic Methods in OR	Major PE	4
MH4920	Supervised Independent Study I	Major PE	4
MH4921	Supervised Independent Study II	Major PE	4
MH4900	Final Year Project	Major PE	8
BA2202	Mathematics of Finance	Major PE	4

MATH – Business Analytics Major PE			
Course Code	Course Title	Course Type	Course AU
MH3510	Regression Analysis	Major PE	4
MH4320	Computational Economics	Major PE	4
MH4510	Statistical Learning and Data Mining	Major PE	4
MH4513	Survival Analysis	Major PE	4
MH4700	Numerical Analysis II	Major PE	4

MH4701	Mathematical Programming	Major PE	4
MH4702	Probabilistic Methods in OR	Major PE	4
MH4920	Supervised Independent Study I	Major PE	4
MH4921	Supervised Independent Study II	Major PE	4
MH4900	Final Year Project	Major PE	8
BC2402	Designing and Developing Databases	Major PE	4
BT2403	Services Operations Management	Major PE	4
CZ2007	Introduction to Databases	Major PE	3

- You are allowed to read higher level courses provided that you have met the pre-requisites and there are vacancies available. Pre-requisites may also be met through exemptions.
- The locations of the Mathematics Labs are as follow.

Mathematics Lab	Location
COMP LAB 1	SPMS-MAS-03-02
COMP LAB 2	SPMS-MAS-03-03
COMP LAB 3	SPMS-MAS-03-04

- Prescribed Electives that are not in the prescribed lists (P1 to P4 lists for PMAS, A1 to A5 lists for AMAS, S1 to S3 lists for STAT) can be registered as UE from STARS. To convert it to Major PE, you may send an e-mail request to SPMSundgrad@ntu.edu.sg by stating clearly your matriculation number, the course code and course type to be converted to **after the add/drop period**.
- Some of the Major Prescribed Electives offered by other schools may not have any pre-requisites. Nevertheless, students are advised to strongly assess their own background before taking these courses. Students who find themselves to have insufficient background should drop the course before the end of add/drop period. Some of these Major Prescribed Electives have extremely limited vacancies hence they could only be initially registered as UE from STARS. To convert it to Major PE, you may send an e-mail request to SPMSundgrad@ntu.edu.sg by stating clearly your matriculation number, the course code and course type to be converted to **after the add/drop period**.
- Final Year students who are interested may apply to take graduate courses as prescribed electives or unrestricted electives. A minimum CGPA of 4.00 is required for the application. Students will be required to fulfill at least 18 AU at Level 4 or higher courses as part of their graduation requirement under Major PE/ UE. Graduate course information may be found from the below website:
<http://spms.ntu.edu.sg/MathematicalSciences/Graduate/Pages/Course-Information.aspx>

These are the graduate courses offered in AY 2021/2022 Semester 1

- MAS714 – Algorithms and Theory of Computing
- MAS728 - Topics in Probability and Statistics II

This application is subject to approval, and no exam timetable clashes between UG and PG course are allowed.

10. Students with Admission Year 2021 who are intending to take up higher level courses whereby the prerequisites are fulfilled through exemptions are to write in to SPMSUndgrad@ntu.edu.sg. Exemptions will only be updated after add/drop period and will only be reflected at the end of the semester, together with semester results release.
11. Students who have taken SM2 modules previously and received a minimum of B+ grade in Calculus I and Calculus II respectively will be granted exemptions to MH1100 (Calculus I) and MH1101 (Calculus II) respectively.
12. Students who have taken courses as pre-requisites during exchange programme in the current Semester, please submit your waiver request via the Online Waiver Application using this link: <https://walnut.spms.ntu.edu.sg/waiver/student/default.aspx>. Please upload a copy of the course mapping details and a copy of your exchange transcript (if any) in pdf format in your application.
13. The following UE are also offered in Semester 1 AY 2021/2022.

Course Code	Course Title	Course AU
MH9100	Advanced Investigations in Calculus I	1
MH9200	Advanced Investigations in Linear Algebra I	1
MH9000	Mathematical Problem-Solving	2

14. Enquiries on curriculum may be directed to :
- Mr Chris Kee (kbkee@ntu.edu.sg)
15. Enquiries on courses registration may be directed to SPMSundgrad@ntu.edu.sg. Your matriculation number must always be included in your e-mail. Please refrain from sending multiple similar e-mails as this will not expedite the response but rather it will cause undue delay. All enquiries will be attended to and will be replied as soon as possible, depending on the nature of the request. Appeals for GER-PE and UE vacancies are to be submitted through the online appeal system and they will not be responded to if otherwise.
16. Enquiries on network performance, Studentlink password or STARS PIN may be directed to NSS Service Desk using the IT Service Desk Form below:
<https://www.ntu.edu.sg/life-at-ntu/internet-account-and-policy/service-desk-form>