

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 2 AY 2020/2021 (subject to pre-requisites).
4. Please refer to URL for the most updated GER Core requirements:
<http://spms.ntu.edu.sg/Programmes/Undergrads/Pages/GER-Core-Requirements.aspx>

MATH Year 1 (U20)			
Course Code	Course Title	Course Type	Course AU
MH1101	Calculus II	Core	4
MH1201	Linear Algebra II	Core	4
MH1301	Discrete Mathematics	Core	3
MH1403	Algorithms & Computing	Core	3
HW0128	Scientific Communication I	GER-Core	2
GC0001	Introduction to Sustainability: Multidisciplinary Approaches and Solutions	GER-Core	1

MATH - Applied Mathematics Year 2 (U19)			
Course Code	Course Title	Course Type	Course AU
MH3100	Real Analysis I	Core	4
MH3110	Ordinary Differential Equations	Core	4
HY0001	Ethics & Moral Reasoning	GER-Core	1
PS0002	Introduction to Data Science and Artificial Intelligence	GER-Core	3
	One Core Course from chosen track	Core	3-4

MATH - Pure Mathematics Year 2 (U19)			
Course Code	Course Title	Course Type	Course AU
MH3100	Real Analysis I	Core	4
MH3110	Ordinary Differential Equations	Core	4
HY0001	Ethics & Moral Reasoning	GER-Core	1
PS0002	Introduction to Data Science and Artificial Intelligence	GER-Core	3
	One Core Course from chosen track	Core	3-4

MATH – Statistics Year 2 (U19)			
Course Code	Course Title	Course Type	Course AU
MH3100	Real Analysis I	Core	4
MH3110	Ordinary Differential Equations	Core	4
HY0001	Ethics & Moral Reasoning	GER-Core	1
PS0002	Introduction to Data Science and Artificial Intelligence	GER-Core	3
	One Core Course from chosen track	Core	3-4

MATH – Business Analytics Year 2 (U19)			
Course Code	Course Title	Course Type	Course AU
MH3110	Ordinary Differential Equations	Core	4
HY0001	Ethics & Moral Reasoning	GER-Core	1
PS0002	Introduction to Data Science and Artificial Intelligence	GER-Core	3

MATH – Applied Mathematics Year 3 (U18)			
Course Code	Course Title	Course Type	Course AU
MH3701	Basic Optimization	Core	4
MH3700	Numerical Analysis I	Core	3
ET0001	Enterprise & Innovation	GER-Core	1
HW0228	Scientific Communication II	GER-Core	2

MATH – Pure Mathematics Year 3 (U18)			
Course Code	Course Title	Course Type	Course AU
MH3200	Abstract Algebra I	Core	3
ET0001	Enterprise & Innovation	GER-Core	1
HW0228	Scientific Communication II	GER-Core	2

MATH – Statistics Year 3 (U18)			
Course Code	Course Title	Course Type	Course AU
MH3511	Data Analysis with Computer	Core	3
MH3500	Statistics	Core	4
ET0001	Enterprise & Innovation	GER-Core	1
HW0228	Scientific Communication II	GER-Core	2

MATH - Business Analytics Year 3 (U18)			
Course Code	Course Title	Course Type	Course AU
MH3511	Data Analysis with Computer	Core	3
MH3400	Algorithms for the Real World	Core	4
MH3500	Statistics	Core	4
ET0001	Enterprise & Innovation	GER-Core	1
HW0228	Scientific Communication II	GER-Core	2

MATH - Applied Mathematics Major PE			
Course Code	Course Title	Course Type	Course AU
MH3400	Algorithms for the Real World	Major PE	4
MH4110	Partial Differential Equations	Major PE	4
MH4310	Coding Theory	Major PE	4
MH4514	Financial Mathematics	Major PE	4
MH4900	Final Year Project	Major PE	8
MH4920	Supervised Independent Study I	Major PE	4
MH4921	Supervised Independent Study II	Major PE	4
CZ2001	Algorithms	Major PE	3

MATH - Pure Mathematics Major PE			
Course Code	Course Title	Course Type	Course AU
MH3400	Algorithms for the Real World	Major PE	4
MH4100	Real Analysis II	Major PE	4
MH4310	Coding Theory	Major PE	4
MH4600	Algebraic Topology	Major PE	4
MH4900	Final Year Project	Major PE	8
MH4920	Supervised Independent Study I	Major PE	4
MH4921	Supervised Independent Study II	Major PE	4

MATH - Statistics Major PE			
Course Code	Course Title	Course Type	Course AU
MH3400	Algorithms for the Real World	Major PE	4
MH3701	Basic Optimization	Major PE	4
MH4500	Time Series Analysis	Major PE	4
MH4501	Multivariate Analysis	Major PE	4
MH4514	Financial Mathematics	Major PE	4
MH4900	Final Year Project	Major PE	8
MH4920	Supervised Independent Study I	Major PE	4
MH4921	Supervised Independent Study II	Major PE	4

MATH – Business Analytics Major PE			
Course Code	Course Title	Course Type	Course AU
MH3700	Numerical Analysis I	Major PE	4
MH3701	Basic Optimization	Major PE	4
MH4500	Time Series Analysis	Major PE	4
MH4501	Multivariate Analysis	Major PE	4
CZ2107	Introduction to Databases	Major PE	3
CZ4041	Machine Learning	Major PE	3
CZ4034	Information Retrieval	Major PE	3
AB1401	Technological Innovations and Developments	Major PE	3
BC3402	Financial Service Processes and Analytics	Major PE	4
MH4900	Final Year Project	Major PE	8
MH4920	Supervised Independent Study I	Major PE	4
MH4921	Supervised Independent Study II	Major PE	4

- 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

- 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.
- 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**. Please make sure that you have fulfilled your track list before taking other track courses.
- 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**.

10. 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. Graduate course information may be found from <http://spms.ntu.edu.sg/MathematicalSciences/Graduate/Pages/Course-Information.aspx>. These are the graduate courses offered in AY2020/2021 Semester 2. Please note that application is subject to approval.

Course Code	Course Title
MAS723	Topics in Probability and Statistics I
MAS790	Graduate Seminar – Discrete Mathematics I

11. Students with Admission Year 2020 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.
12. Students who have taken courses as pre-requisites during exchange programme in the current semester, please write in to SPMSundgrad@ntu.edu.sg with your course mapping approval, screenshot of registered courses in the overseas university and results slip/transcript (if available).
13. The following UE courses are also offered in Semester 2 AY 2020/2021:
Please look out for the email in late Nov/early Dec.

Course Code	Course Title	Course AU
MH9101	Advanced Investigations in Calculus II	1
MH9201	Advanced Investigations in Linear Algebra II	1

14. 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.
15. 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/AboutNTU/contactntu/Pages/servicedesk.aspx>