

1. You are advised to read the instructions to courses registration posted in STARS. Please refer to STARS for the schedule of registration.
2. Students in Physics with 2nd Major in Mathematical Sciences should also refer to the instructions for programme in Mathematical Sciences. Students are only allowed to register for courses up to their **Normal Load** during their scheduled course registration day (during **both** their scheduled timeslot and between 5pm to 10pm on the same day). To register more than Normal Load, students would only be able to do so during the Add/Drop period. Please refer to the table below for the normal and maximum load requirement for your year of study.

Programme	Study Years	Normal Load	Maximum Load
PHMA	4	19	22

3. 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, and it may depend on your past satisfactory academic performance. You are advised to plan ahead as approval takes several days.
4. The following courses are to be read during Semester 1 AY 2022/2023 (subject to pre-requisites).

PHMA - AMAS Major PE/UE			
Course Code	Course Title	Course Type	Course AU
PH3403	Cosmology	Major PE	3
PH4402	Condensed Matter Physics II	Major PE	4
PH4403	Surfaces and Interfaces	Major PE	4
PH4408	Nuclear Physics	Major PE	3
PH4411	Introduction to Experimental Particle Physics	Major PE	3
PH4607	Biomedical Imaging and Sensing	Major PE	3
PH4415	Final Year Project (AY16 batch till AY18 batch)	Major PE	11
PH4421	Final Year Project (AY19 batch and after)	Major PE	10
PH4417	Professional Internship (AY16 batch till AY18 batch)	Major PE	11
PH4420	Professional Internship (AY19 batch and after)	Major PE	10
^MH3300	Graph Theory	Major PE/ UE	4
^MH3512	Stochastic Processes	Major PE/ UE	4
^MH4311	Cryptography	Major PE/ UE	4
^MH4700	Numerical Analysis II	Major PE/ UE	4
^MH4701	Mathematical Programming	Major PE/ UE	4
^MH4702	Probabilistic Methods in OR	Major PE/ UE	4

^As Major PE for AY16 batch and before student and as UE for AY17 batch and after.

PHMA - PMAS Major PE/UE			
Course Code	Course Title	Course Type	Course AU
PH3403	Cosmology	Major PE	3
PH4402	Condensed Matter Physics II	Major PE	4
PH4403	Surfaces and Interfaces	Major PE	4
PH4408	Nuclear Physics	Major PE	3
PH4411	Introduction to Experimental Particle Physics	Major PE	3
PH4607	Biomedical Imaging and Sensing	Major PE	3
PH4415	Final Year Project (AY16 batch till AY18 batch)	Major PE	11
PH4421	Final Year Project (AY19 batch and after)	Major PE	10
PH4417	Professional Internship (AY16 batch till AY18 batch)	Major PE	11
PH4420	Professional Internship (AY19 batch and after)	Major PE	10
^MH4200	Abstract Algebra II	Major PE/ UE	4
^MH4300	Combinatorics	Major PE/ UE	4
^MH4311	Cryptography	Major PE/ UE	4

^As Major PE for AY16 batch and before student and as UE for AY17 batch and after.

PHMA - STAT Major PE/UE			
Course Code	Course Title	Course Type	Course AU
PH3403	Cosmology	Major PE	3
PH4402	Condensed Matter Physics II	Major PE	4
PH4403	Surfaces and Interfaces	Major PE	4
PH4408	Nuclear Physics	Major PE	3
PH4411	Introduction to Experimental Particle Physics	Major PE	3
PH4607	Biomedical Imaging and Sensing	Major PE	3
PH4415	Final Year Project (AY16 batch till AY18 batch)	Major PE	11
PH4421	Final Year Project (AY19 batch and after)	Major PE	10
PH4417	Professional Internship (AY16 batch till AY18 batch)	Major PE	11
PH4420	Professional Internship (AY19 batch and after)	Major PE	10
^MH3512	Stochastic Processes	Major PE/ UE	4
^MH4510	Statistical Learning and Data Mining	Major PE/ UE	4

^MH4511	Sampling and Survey	Major PE/ UE	4
^MH4513	Survival Analysis	Major PE/ UE	4
^MH4701	Mathematical Programming	Major PE/ UE	4
^MH4702	Probabilistic Methods in OR	Major PE/ UE	4

^As **Major PE** for **AY16 batch and before student** and as **UE** for **AY17 batch and after**.

5. 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.

6. The location of the Mathematics Labs is 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

7. Students who are interested may 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 10 AU of level 4 [excluding PH4415/PH4421 Final Year project or PH4417/PH4420 Professional Internship] and above courses as part of their graduation requirement under Major PE. Graduate course information may be found from <https://www.ntu.edu.sg/spms/about-us/physics/undergrad/course-info#grad>. Please take note of the pre-requisite requirement of the graduate courses.

Students may write in to SPMSundgrad@ntu.edu.sg for more details on the application process.

These are the graduate courses offered in AY2022/2023 Semester 1:

- PH7003: Graduate Solid State Physics
- PH7014: Optical Spectroscopic Techniques

Please note that PH7003 is mutually exclusive with PH4402. This application is subject to approval.

8. 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 during the application period: <https://walnut.spms.ntu.edu.sg/waiver/student/default.aspx>. Please upload a copy of the course matching details and a copy of your exchange transcript (if any) in pdf format in your application.
9. Enquiries on curriculum may be directed to :
- Assoc Prof Cheong Siew Ann (cheongsa@ntu.edu.sg)
 - Ms Tan Soo Pei, Juliet (JulietTanSP@ntu.edu.sg)
10. 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 will not be responded to if submitted otherwise.

11. Enquiries on network performance, Studentlink password or STARS PIN may be directed to NSS Service Desk using the IT Service Desk Form below:

- [ServiceNow](#)
- [Password Services](#) (To change or reset Network Account password)
- Service Desk Form: <https://www.ntu.edu.sg/life-at-ntu/internet-account-and-policy/service-desk-form>