

1. You are advised to read the instructions to courses registration posted in STARS. Please refer to STARS for the schedule of registration.
2. For admission year 2011 onwards, 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: <http://spms-appserver5.staff.main.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).

PHY Year 1			
Course Code	Course Title	Course Type	Course AU
PH1106	Electricity and Magnetism	Core	3
PH1107	Relativity and Quantum Physics	Core	3
PH1199	Physics Laboratory Ib	Core	2
MH1803	Calculus for Physics (AY17 batch onwards)	Core	4
MH2802	Linear Algebra for Scientists (AY17 batch onwards)	Core	3
HW0128	Scientific Communication I	GER-Core	2
GC0001	Sustainability: Seeing Through the Haze	GER-Core	1

PHY Year 2 (APHY)			
Course Code	Course Title	Course Type	Course AU
PH2101	Quantum Mechanics I	Core	3
PH2102	Electromagnetism	Core	4
PH2199	Physics Laboratory IIb	Core	2
PH2301	Physical Optics	Core	3
HY0001	Ethics & Moral Reasoning	GER-Core	1
*PS0002	Introduction to Data Science and Artificial Intelligence	GER-Core	3

*Applicable to AY19 and after students

PHY Year 2 (PPHY)			
Course Code	Course Title	Course Type	Course AU
PH2101	Quantum Mechanics I	Core	3
PH2102	Electromagnetism	Core	4
PH2199	Physics Laboratory IIb	Core	2
HY0001	Ethics & Moral Reasoning	GER-Core	1
*PS0002	Introduction to Data Science and Artificial Intelligence	GER-Core	3

*Applicable to AY19 and after students

PHY Year 3 (APHY)			
Course Code	Course Title	Course Type	Course AU
PH3199	Physics Laboratory IIIa	Core	2
PH3399	Physics Lab IIIb	Core	2
ET0001	Enterprise & Innovation	GER-Core	1
HW0228	Scientific Communication II	GER-Core	2
#ML0002	Career Power Up	GER-Core	1

#Applicable to AY17 and before students

PHY Year 3 (PPHY)			
Course Code	Course Title	Course Type	Course AU
PH3199	Physics Laboratory IIIa	Core	2
PH3201	Statistical Mechanics I	Core	4
ET0001	Enterprise & Innovation	GER-Core	1
HW0228	Scientific Communication II	GER-Core	2
#ML0002	Career Power Up	GER-Core	1

#Applicable to AY17 and before students

PHY Major PE (APHY)			
Course Code	Course Title	Course Type	Course AU
PH2601	Introduction to Lasers	Major PE	3
PH3401	Atomic Physics	Major PE	4
PH3603	Biophysics	Major PE	3
PH4401	Quantum Mechanics III	Major PE	4
PH4404	Nanoscale Physics	Major PE	3
PH4414	Introduction to Spintronics	Major PE	3
PH4418	Physics in the Industry	Major PE	4
PH4419	Computational Physics	Major PE	4
PH4603	Soft Condensed Matter Physics	Major PE	3

PH4605	Medical Physics for Radiotherapy	Major PE	4
PH4405	Final Year Project (AY15 batch and earlier)	Major PE	10
PH4415	Final Year Project (AY16 - AY18 batch only)	Major PE	11
PH4413	Professional Internship (AY15 batch only)	Major PE	10
PH4417	Professional Internship (AY16 - AY18 batch only)	Major PE	11

PHY Major PE (PPHY)			
Course Code	Course Title	Course Type	Course AU
PH3401	Atomic Physics	Major PE	4
PH4401	Quantum Mechanics III	Major PE	4
PH4404	Nanoscale Physics	Major PE	3
PH4414	Introduction to Spintronics	Major PE	3
PH4418	Physics in the Industry	Major PE	4
PH4419	Computational Physics	Major PE	4
PH4508	Introduction to General Relativity	Major PE	3
PH4509	Quantum Field Theory with applications in Condensed Matter Physics	Major PE	4
PH4405	Final Year Project (AY15 batch and earlier)	Major PE	10
PH4415	Final Year Project (AY16 - AY18 batch only)	Major PE	11
PH4413	Professional Internship (AY15 batch only)	Major PE	10
PH4417	Professional Internship (AY16 - AY18 batch only)	Major PE	11

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.
5. 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

6. Students with Admission Year 2020 who are intending to take up higher level courses whereby the pre-requisites 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.

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 PH4405/PH4415 Final Year project (10 AU/11 AU) or PH4407/PH4413/PH4417 Professional Internship (10 AU/11AU)] and above courses as part of their graduation requirement under Major PE. Graduate course information may be found from <http://spms.ntu.edu.sg/PhysicsandAppliedPhysics/Graduate-Students/Pages/Course-Schedule.aspx>. Students may write in to spmsundgrad@ntu.edu.sg for more details on the application process.

These are the graduate courses offered in AY2020/2021 Semester 2:

- PAP777 - Graduate Quantum Mechanics
- PAP732 - Nonlinear Optics
- PAP747 - Spintronics for Information Technology
- PAP723 - Advanced Numerical Methods for Physicists

Please note that PAP777 is mutually exclusive with PH4401; PAP732 is mutually exclusive with PH4409; PAP747 is mutually exclusive with PH4414; PAP723 is mutually exclusive with PH4419. 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: <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. This is subjected to approval from approving officer.
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: <https://www.ntu.edu.sg/AboutNTU/contactntu/Pages/servicedesk.aspx>.
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