

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 and Mathematical Sciences (Double Major) 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 |
|-----------|-------------|-------------|--------------|
| PHMS      | 1, 2, 3     | 20          | 20           |

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). Students with Admission Year 2022 will have their core courses allocated during the online matriculation.
5. Please refer to URL for the most updated GER Core/ICC Core requirements:  
<https://www.ntu.edu.sg/spms/admissions/undergrad/core-courses>

| PHMS – Year 1       |                                                                      |             |           |
|---------------------|----------------------------------------------------------------------|-------------|-----------|
| Course Code         | Course Title                                                         | Course Type | Course AU |
| PH1104              | Mechanics                                                            | Core        | 3         |
| PH1198              | Physics Laboratory Ia                                                | Core        | 2         |
| MH1100              | Calculus I                                                           | Core        | 4         |
| MH1200              | Linear Algebra I                                                     | Core        | 4         |
| MH1300              | Foundations of Mathematics                                           | Core        | 4         |
| CC0002 <sup>#</sup> | Navigating the Digital World                                         | ICC Core    | 2         |
| HW0001              | Introduction to Academic Communication (for students who failed QET) |             | 0         |

<sup>#</sup>Applicable to AY21 students onwards

| PHMS – Year 2 |                                |             |           |
|---------------|--------------------------------|-------------|-----------|
| Course Code   | Course Title                   | Course Type | Course AU |
| PH1105        | Optics, Vibrations and Waves   | Core        | 3         |
| PH1107        | Relativity and Quantum Physics | Core        | 3         |
| PH2198        | Physics Lab IIa                | Core        | 2         |

|         |                                                           |          |   |
|---------|-----------------------------------------------------------|----------|---|
| MH2100  | Calculus III                                              | Core     | 4 |
| ML0004# | Career & Entrepreneurial Development for the Future World | ICC-Core | 2 |
| CC0006# | Sustainability: Society, Economy & Environment            | ICC-Core | 3 |

#Applicable to AY21 students onwards

| PHMS – Year 3 |                      |             |           |
|---------------|----------------------|-------------|-----------|
| Course Code   | Course Title         | Course Type | Course AU |
| PH3101        | Quantum Mechanics II | Core        | 4         |
| PS8001        | Defence Science      | GER-Core    | 3         |

| PHY Major PE |                                               |             |           |
|--------------|-----------------------------------------------|-------------|-----------|
| 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         |
| PH4421       | Final Year Project                            | Major PE    | 10        |

| MATH Major PE |                                      |             |           |
|---------------|--------------------------------------|-------------|-----------|
| Course Code   | Course Title                         | Course Type | Course AU |
| MH3300        | Graph Theory                         | Major PE    | 4         |
| MH3510        | Regression Analysis                  | Major PE    | 4         |
| MH3512        | Stochastic Processes                 | Major PE    | 4         |
| MH4200        | Abstract Algebra II                  | Major PE    | 4         |
| MH4300        | Combinatorics                        | Major PE    | 4         |
| MH4311        | Cryptography                         | Major PE    | 4         |
| MH4510        | Statistical Learning and Data Mining | Major PE    | 4         |
| MH4511        | Sampling & Survey                    | Major PE    | 4         |
| MH4513        | Survival Analysis                    | Major PE    | 4         |
| MH4518        | Simulation Techniques in Finance     | Major PE    | 4         |
| MH4700        | Numerical Analysis II                | Major PE    | 4         |
| MH4701        | Mathematical Programming             | Major PE    | 4         |
| MH4702        | Probabilistic Methods in OR          | Major PE    | 4         |
| MH4900        | Final Year Project                   | Major PE    | 10        |

6. 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.
7. Students with Admission Year 2022 who are not allocated with Core Courses after they matriculate online may write in to [SPMSUndgrad@ntu.edu.sg](mailto:SPMSUndgrad@ntu.edu.sg).
8. Students with Admission Year 2022 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](mailto: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.

9. 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 |

10. 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.
11. Enquiries on curriculum may be directed to:
  - Assoc Prof Cheong Siew Ann ([cheongsa@ntu.edu.sg](mailto:cheongsa@ntu.edu.sg))
  - Ms Tan Soo Pei, Juliet ([JulietTanSP@ntu.edu.sg](mailto:JulietTanSP@ntu.edu.sg))
12. Enquiries on courses registration may be directed to [SPMSundgrad@ntu.edu.sg](mailto: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.
13. 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>