Physics

PROGRAMME INFORMATION

1. **What undergraduate courses does the Department of Physics offer?**

   The NUS Physics programme is a four-year direct honours programme leading to a BSc (Hons) under the College of Humanities and Sciences (CHS). The new Physics curriculum allows you to chart your learning journey according to your interests, aptitudes and career aspirations. Among the Major requirements, there are some compulsory courses covering fundamental physics, and optional courses which you can choose. You will have a choice of specialisations - Astrophysics, Nanophysics, Quantum Technologies - without additional workload. It is also an option to graduate without any specialisation.

   We also offer a Second Major in Physics and six Minors - Minor in Physics, Minor in Astronomy, Minor in Biophysics, Minor in Medical Physics, Minor in Meteorology and Climate Science and Minor in Nanoscience.

APPLICATION/ADMISSION

2. **How do I apply to read the Major in Physics with the College of Humanities and Sciences?**

   To read Physics as the Primary Major, candidates should apply for admissions to the College of Humanities and Sciences (CHS). The Physics Major requires a good H2 pass (or equivalent) in Mathematics/Further Mathematics. Candidates without these prerequisites are required to read the corresponding bridging course in Mathematics in the first year of studies.

3. **Can polytechnic students apply to take Physics?**

   Yes, as long as their diplomas are accredited to the Physics Major. For the full list of accredited diplomas, please refer to the NUS Office of Admissions' website at nus.edu.sg/oam/admissions/polytechnic-diploma-from-singapore/admission-requirements.

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OTHER INFORMATION

4. **Will I have a chance to do research?**

   In the final year, you may choose to do an Honours Project in Physics with eight units. There are also research opportunities for undergraduate students in your second or third year. Research done within the Undergraduate Research Opportunities Programme in Science (UROPS) gives four units towards graduation. You are also welcome to join laboratories and research groups without a fixed scheme. If you want to explore research, please browse through our research breakthroughs at physics.nus.edu.sg/physics-breakthroughs/.

5. **Will I have internship opportunities?**

   There are internship opportunities available, such as summer internships, and semester-long or year-long internships (usually taken in Year 3), or you can participate in the Undergraduate Professional Internship Programme (UPIP). Internships provide valuable real-world experience in industries and startups, giving you a headstart to explore and discover your career paths.

CAREER PROSPECTS

6. **What are the prospects for physics graduates?**

   Physics graduates have skills that are in high demand in diverse sectors. These include numeracy and mathematical literacy, problem-solving, the communication of complex ideas, as well as a wider understanding of how the world works on a scientific and human level. Through a combination of cutting-edge research and a fundamental understanding of physical principles, physicists pioneer future technology and its uses, and the application of physical ideas to industrial and engineering problems.

   Physics graduates are employed in both scientific and non-technical domains, in sectors ranging from defence to education, engineering, healthcare, materials and technology, amongst others. Many physics graduates work in research roles across many industries, while others have fulfilling careers in the private and public sectors.