



Physics Advising Guide

Detailed information about ISA programs at these host institutions is available on ISA's website by following the links below. If you would like to receive specific course syllabi, or have further questions about any of these recommendations, please feel free to contact ISA's Academic Affairs Department at academicaffairs@studiesabroad.com.

Courses are in English unless otherwise noted.

AFRICA

University of Cape Town (Cape Town, South Africa)

The Faculty of Science at the [University of Cape Town](https://www.uct.ac.za) is internationally recognized as a leading research institution. The School is also proud of the strength of its teaching. Physics and Astrophysics courses are structured around faculty research topics and are coupled with laboratory work that allows students to demonstrate their acquired knowledge.

Sample Courses:

- [Astronomical Techniques](#)
- [Astrophysics](#)
- [Classical and Quantum Mechanics](#)
- [Matter and Interactions](#)
- [Principles of Physics](#)
- [Stellar Astrophysics](#)

[Astronomy course list](#)

[Physics course list](#)

ASIA

Korea University (Seoul, South Korea)

With one of the strongest physics departments in South Korea, [Korea University](https://www.ku.ac.kr) offers courses that explore pure, theoretical, and experimental physics. As Korea's top ranked university, KU offers ISA students a great opportunity to pursue coursework in English with local students.

Sample Courses:

- [Atomic Physics](#)
- [Electromagnetism I](#)
- [Heat Transfer](#)
- [Modern Optics](#)
- [Optics](#)
- [Physical Chemistry](#)

[Physics course list](#)

Other Regional Options:

- [Hanyang University](#) – Seoul, South Korea (summer program only)
- [Mahidol University](#) – Bangkok, Thailand

EUROPE

Queen Mary, University of London (London, England)

The School of Physics and Astronomy at [Queen Mary, University of London](https://www.qmul.ac.uk) is renowned for the strength of their research and teaching. Research specializations within the department include astronomy, condensed matter and materials, theoretical physics, and particle physics. Queen Mary is notably committed to addressing the gender imbalance within Physics departments and boasts a female undergraduate enrollment that is slightly higher than the national average.

Sample Courses:

- [Electromagnetic Waves and Optics](#)
- [Fluid Dynamics](#)
- [Nuclear Physics and Astrophysics](#)
- [Physical Cosmology](#)
- [Spacetime and Gravity](#)
- [Waves and Oscillations](#)

[Astronomy course list](#)

[Physics course list](#)

National University of Ireland, Galway (Galway, Ireland)

The School of Physics at the [National University of Ireland, Galway](#) features undergraduate courses that are influenced by the School's main research areas: Photonics and Laser Applications; Atmospheric and Environmental Physics; and Astronomy. Visiting students can take core physics courses as well as courses in the four undergraduate pathways of Applied Physics, Astrophysics, Biomedical Physics and Theoretical Physics.

Sample Courses:

- [Astrophysical Concepts](#)
- [Electricity, Magnetism & Electrical Circuits](#)
- [Nuclear and Particle Physics](#)
- [Observational Astronomy](#)
- [Quantum Physics](#)
- [Wave Optics](#)

[Physics course list](#)

University of Glasgow (Glasgow, Scotland)

As one of the largest universities in the UK, the [University of Glasgow](#) offers students a wide array of course options. The university's School of Physics and Astronomy offers courses in the following tracks: Physics, Theoretical Physics, Chemical Physics, and Physics with Astrophysics. All physics courses cover a variety of academic skills such as presentation and writing.

Sample Courses:

- [Astronomy Skills 1](#)
- [Atomic Systems](#)
- [Circuits and Systems](#)
- [Circumstellar Matter](#)
- [Instruments for Optical and Radio Astronomy](#)
- [Magnetism and Superconductivity](#)

[Astronomy course list](#)

[Physics course list](#)

Other Regional Options:

- [King's College London](#) – London, England
- [University of Reading](#) – Reading, England
- [Maynooth University](#) – Dublin, Ireland
- [University College Dublin](#) – Dublin, Ireland
- [University of Limerick](#) – Limerick, Ireland
- [Universidad de Salamanca](#) – Salamanca, Spain (courses in Spanish)
- [Universitat Politècnica de València](#) – Valencia, Spain

LATIN AMERICA

Universidad del Norte (Barranquilla, Colombia)

The [Universidad del Norte](#) is one of the leading universities in Colombia. Visiting students at the advanced-level of Spanish can take physics courses with local students. One of the highlights of studying at the UniNorte is the opportunity to complete a research project, under the guidance of UniNorte faculty, for academic credit. Students are expected to have at least a high-beginning language level in order to enroll in the research course.

Sample Courses:

- [Heat Wave Physics](#)
- [Mechanical Physics](#)
- [Physics of Electricity](#)
- [Research Project](#)

[Physics course list](#)

Other Regional Options:

- [Universidad de Belgrano](#) – Buenos Aires, Argentina (courses in Spanish)

PACIFIC

University of Queensland (Brisbane, Australia)

With one of the strongest reputations for physics research in Australia, the [University of Queensland's](#) School of Mathematics and Physics offers courses in classical and modern physics. In addition to advancing their knowledge of physics and astronomy, students studying at the University of Queensland also have the opportunity to perfect their laboratory and computing skills. [Cricos Code: 00025B]

Sample Courses:

- [Algebraic Methods of Mathematical Physics](#)
- [Dynamics, Chaos & Special Relativity](#)
- [Electronics & Circuit Theory](#)
- [Mechanics & Thermal Physics I](#)
- [Quantum Physics](#)
- [Thermodynamics & Condensed Matter Physics](#)

[Physics course list](#)

University of Sydney (Sydney, Australia)

With one of the leading Physics departments in Australia, the [University of Sydney](#) offers a strong foundation of beginning physics courses as well as more advanced courses in Physics, Astronomy, and a variety of related sciences. Most of academic staff in the School of Physics are involved in a research group or Centre of Research Excellence. [Cricos Code: 00026]

Sample Courses:

- [Astronomy](#)
- [Astrophysics and Relativity](#)
- [High Energy Physics/Optics and Lab](#)
- [Physics I](#)
- [Statistical Mechanics and Physics Lab](#)

[Physics course list](#)

University of Auckland (Auckland, New Zealand)

With New Zealand's largest physics department, [University of Auckland](#) offers courses that combine knowledge and practical competencies. Learning from the country's leading physicists, students can enroll in a number of physics courses as well as a courses from a range of related sciences.

Sample Courses:

- [Basic Concepts of Physics](#)
- [Classical and Thermal Physics](#)
- [Electromagnetism](#)
- [Particle Physics and Astrophysics](#)
- [Planets, Stars and Galaxies](#)
- [Relativity and Quantum Physics](#)

[Physics course list](#)

University of Canterbury (Christchurch, New Zealand)

The Department of Physics and Astronomy at the [University of Canterbury](#) offers a range of courses in the following physics pathways: Astronomy; Atmospheric Physics; Gravitation and Cosmology; Medical Physics, Nanotechnology, Condensed Matter; and Theoretical and Mathematical Physics.

Sample Courses:

- [Astrophysics](#)
- [Classical Mechanics and Symmetry Principles](#)
- [Electromagnetism and Materials](#)
- [Quantum Mechanics](#)
- [Relativistic and Quantum Physics](#)
- [Thermal, Statistical and Particle Physics](#)

[Physics course list](#)

Other Regional Options:

- [Queensland University of Technology](#) – Brisbane, Australia

- [University of Melbourne](#) – Melbourne, Australia
- [University of Newcastle](#) – Newcastle, Australia
- [Macquarie University](#) – Sydney, Australia
- [University of New South Wales](#) – Sydney, Australia
- [James Cook University](#) – Townsville, Australia
- [University of the South Pacific](#) – Suva, Fiji
- [AUT University](#) – Auckland, New Zealand
- [University of Otago](#) – Dunedin, New Zealand
- [Victoria University of Wellington](#) – Wellington, New Zealand