

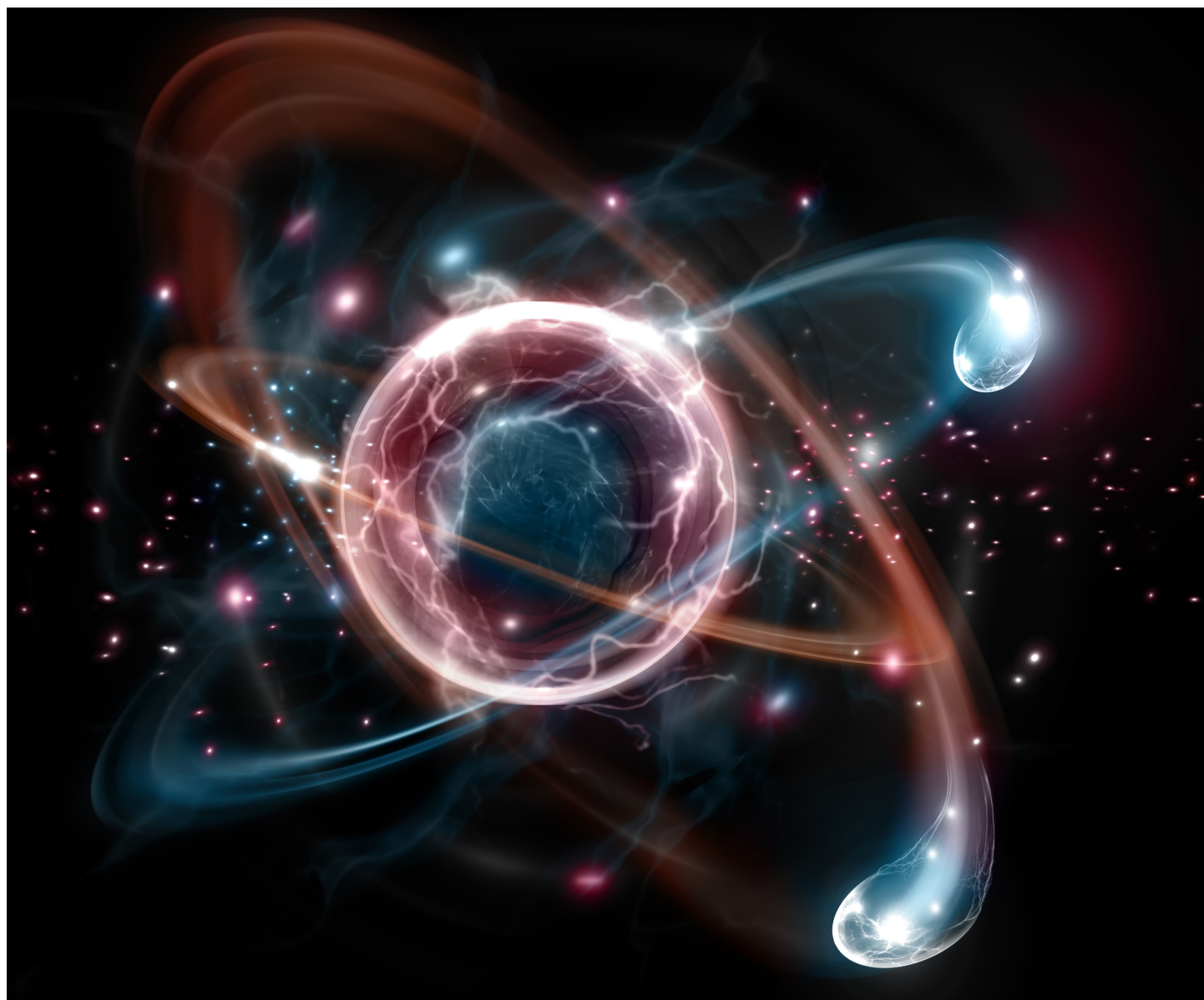


**SORBONNE  
UNIVERSITY  
ABU DHABI**

THE CAREER CENTRE

# **RECRUITING STUDENTS**

**FOCUS ON THE BACHELOR PROGRAMME IN PHYSICS**





**In short:** Physics is a theoretical and practical discipline concerned with the understanding of the world. Our students are trained to study physical phenomena, develop mathematical models, evaluate data, design and implement experiments and applications.

While a physics curriculum may lead physicists to work in research, a common misconception today is that graduates mainly become theoretical or experimental physicists who work at universities and for national laboratories. An increasing number of companies from different industries are recruiting graduates from this diverse discipline.

As part of their training, physics students enrolled at Sorbonne University are required to perform a six- to eight-week internship with organisations from the public or private sector to put their academic knowledge into practice and gain solid first-hand experience.

## A TECHNICAL CURRICULUM

Sorbonne University Abu Dhabi (SUAD) Bachelor's in Physics is a three-year undergraduate programme taught in English, which can be preceded by a Foundation Year in Sciences. This comprehensive curriculum provides students with a solid background in physics, computing, technology, mathematics and engineering while guiding them to become well-rounded critical thinkers, dedicated innovators and collaborative problem solvers.

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### Finding the right talent for your business

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Designed to equip students with rigour and autonomy, the physics programme prepares them for the job market or to pursue postgraduate studies. They are taught to observe, understand and predict natural phenomena and the behaviour of man-made systems. Dealing both with essential questions about the universe and important commercial, environmental and technological issues, physics often drives applications and developments in a myriad of other fields.

By connecting physics principles with practical applications and using them to create innovative solutions to real world problems, our students have a unique way of looking at problems that many employers value. Physics graduates are also numerate, articulate and eminently employable in a wide range of jobs.





## WHAT ESSENTIAL SKILLS DO OUR STUDENTS OFFER?

Our students are expected to have technical and interpersonal skills enabling them to think critically, challenge concepts and ideas and communicate effectively when addressing complex mathematical or physical real-world problems. A combination of scientific and relational aptitudes, such profiles are increasingly demanded on the labour market and make our students highly employable.

### Graduates from this degree programme are expected to:

- Demonstrate an understanding of fundamental physical laws, principles and topics and show an aptitude for experimental physics
- Easily grasp new knowledge and concepts, construct logical arguments and use technical language correctly
- Solve difficult problems, identify appropriate physics principles, find relationships between physical factors
- Research and analyse while paying attention to detail and produce clear and accurate scientific reports
- Use mathematics to describe the physical world and understand mathematical modelling
- Communicate well both verbally and in writing, present complex information clearly and concisely
- Competently use computer applications and programmes, including programming languages (Python) and platforms (MATLAB, LabVIEW, Arduino)
- Work independently and collaboratively, using initiative, planning and organising to meet deadlines and interact constructively with other people
- Use laboratory apparatus and techniques soundly
- Manage their time and meet deadlines
- Successfully collect, analyse and interpret data, as well as evaluate the level of uncertainty in results

The fundamentals, include electromagnetism, quantum and classical mechanics, statistical physics and thermodynamics, wave phenomena and the properties of matter. Students also study the application of the fundamental principles to areas which may include atomic physics, nuclear and particle physics, condensed matter physics, materials, plasmas and fluids.

A bachelor degree in physics equips graduates with a strong set of broad problem-solving skills which allows them to adapt easily to the needs of your organisation in many different areas such as electronics, optics and computational modelling.

## WHICH FUNCTIONS AND ACTIVITY SECTORS ARE ELIGIBLE?

A physics education provides knowledge and skills to succeed in a wide variety of engineering and science fields and disciplines, all of which are founded by physics principles. Sorbonne University's bachelor programme in Physics is an excellent preparation for many careers and specialisations. This undergraduate degree is often used as a steppingstone to advanced studies when matched with complementary minors. Some physics major graduates find employment in the private sector immediately following the completion of their studies.

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**Supporting the UAE strategies and plans**  
such as the UAE 2021 Vision, the 4IR Strategy, the National  
Space Strategy 2030 and more

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Internships therefore represent an opportunity for an organisation to train physics students in their field of expertise and provide them with business exposure. As a business, you can help us shape the professionals of tomorrow. You may hire an intern to perform missions in various fields ranging from research and development, science and engineering to education, medicine, law or business.



A sampling of professions accessible to SUAD graduates may comprise positions such as: nuclear physicist, laboratory technician, data analyst, electronic engineer, software engineer, renewable energy specialist, meteorologist, solar energy physicist, business analyst, research scientist, astrophysicist, astronomer, radar systems designer, optical physicist, marine geophysicist, aviation inspector, computational scientist, chemical analyst.

## INTERSHIPS DONE BY OUR PHYSICS STUDENTS

The Sciences and Engineering Department of Sorbonne Abu Dhabi collaborates with Cleveland Clinic, the Abu Dhabi Central Testing Laboratory, Khalifa University, New York University Abu Dhabi, the UAE Space Agency, Thales, Total.

Other businesses, institutions and academia who have hosted physics interns in the past are the Abu Dhabi Centre of Meteorology, Masdar Institute, United Arab Emirates University, Dubai Health Authority, Emerson, Dorsch, Schneider, Intuit Analytics.

Organisations generally hire physics interns to fill science and engineering positions, but employment opportunities exist in all areas of the economy. Employers who hired our students praised their hard work, commitment, meticulous work and systematic approach. SUAD students who have recently been recruited, completed internships in the following domains:

- Telecommunications
- Computer sciences and cybersecurity
- Astrophysics and astronomy
- Geophysics
- Engineering physics
- Atomic, Molecular and Optical
- Biomedical and health
- Biophysics
- Nuclear physics
- Meteorology

These sectors are excellent examples demonstrating the critical role an interdisciplinary science like physics plays in today's intricate and technological world. Our students' knowledge and ability to work as part of a team are the keys to delivering success for your business.

## IMPORTANT CONSIDERATIONS WHEN HIRING AN INTERN

### When to recruit?

Between October and December

### For how long?

The ideal internship duration is six to eight weeks, from May to June

### What you will need:

To identify a company supervisor to provide the intern with professional guidance and expertise

### How to recruit?

Contact The Career Centre to organise recruitment sessions, post your internship offers on the SUAD job board or meet our students at the Astrolabe Career Forum 2022

## CONTACT US

### The Career Centre

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