University of Salford
A Greater Manchester University

BSc/ MPhys (Hons)
Physics with Space Technology

> This course is your first step for a career in the space industry
> You will receive a £1k bursary for each year of the course you successfully complete
> An emphasis on hands-on project work to complement the theory learned in the classroom

Are you fascinated by the exploration and possibilities for exploitation of outer space? Do you dream of working for NASA one day, or would you like to be part of the team that makes sending tourists into space a reality?

For 12 years we have been providing our students with a broad understanding of the remarkable subject area of space - at the same time as giving them the knowledge and skills to demonstrate how physics can be applied to the problems that space science presents.

As part of the course you'll have the opportunity to make use of our Space Technology laboratory - home to Starchaser Industries Ltd who work on a number of international research projects including rocket construction and launch.

What I will learn

Specialist modules for this degree:

> Space exploration: an overview of mankind's exploration of the solar system

> Living in space: manned spaceflight

> Spacecraft: orbital dynamics, spacecraft systems and designs, launch propulsion systems and the space environment

> Communications in space: use of satellites for communication

> Astrophysics and plasma physics: from stars to galaxies - understanding the big picture

> Robotics in space: technologies required for remote space based operations

In your final year you will also carry out an individual space technology research project - recent projects have included:

> Rocket propulsion systems

> Astronomy / observation

> Planetary surface rovers

> Spacecraft reaction control systems

> Laser communications

...Our lecturers are at the forefront of research in this area:

Steve Bennett, Managing Director of Starchaser Industries Ltd and lecturer at the University, has recently been awarded research funding to develop an environmentally friendly hybrid rocket engine that will utilize "green" propellants, producing virtually no harmful emissions. Starchaser has also won £130k of funding from the European Space Agency (ESA) to investigate the market for space tourism within Europe.

Dr David Tsiklauri has carried out collaborative projects with NASA and heads up the Solar Plasma Group, researching space weather, coronal mass ejections, solar flares and solar energetic particle evnets.

Understanding these areas is of great importance in maintaining reliable telecommunications through the use of satellites and ensuring the safety of astronauts.

How will I be taught?

Throughout the degree you will be taught using a combination of lectures, tutorials, problem solving classes, coursework, laboratory experiments, group projects and individual research-based projects.

Giving you the experience to get a job

Links with the following companies offer opportunities to apply your knowledge in the real world for up to 12 months between your second and third years. This kind of experience can be invaluable and most students who take this year will not only be paid for their time and find themselves much more motivated on return, but will also have a much better chance of getting a job when they graduate.

> British Aerospace

> Defence Evaluation Research Agency

> Starchaser

> RutherfordAppleton laboratories

What kind of job can I get?

This course opens up a wide range of potential careers, that are not exclusive to working within the space technology sector.

Career opportunities include:

> The aerospace industry

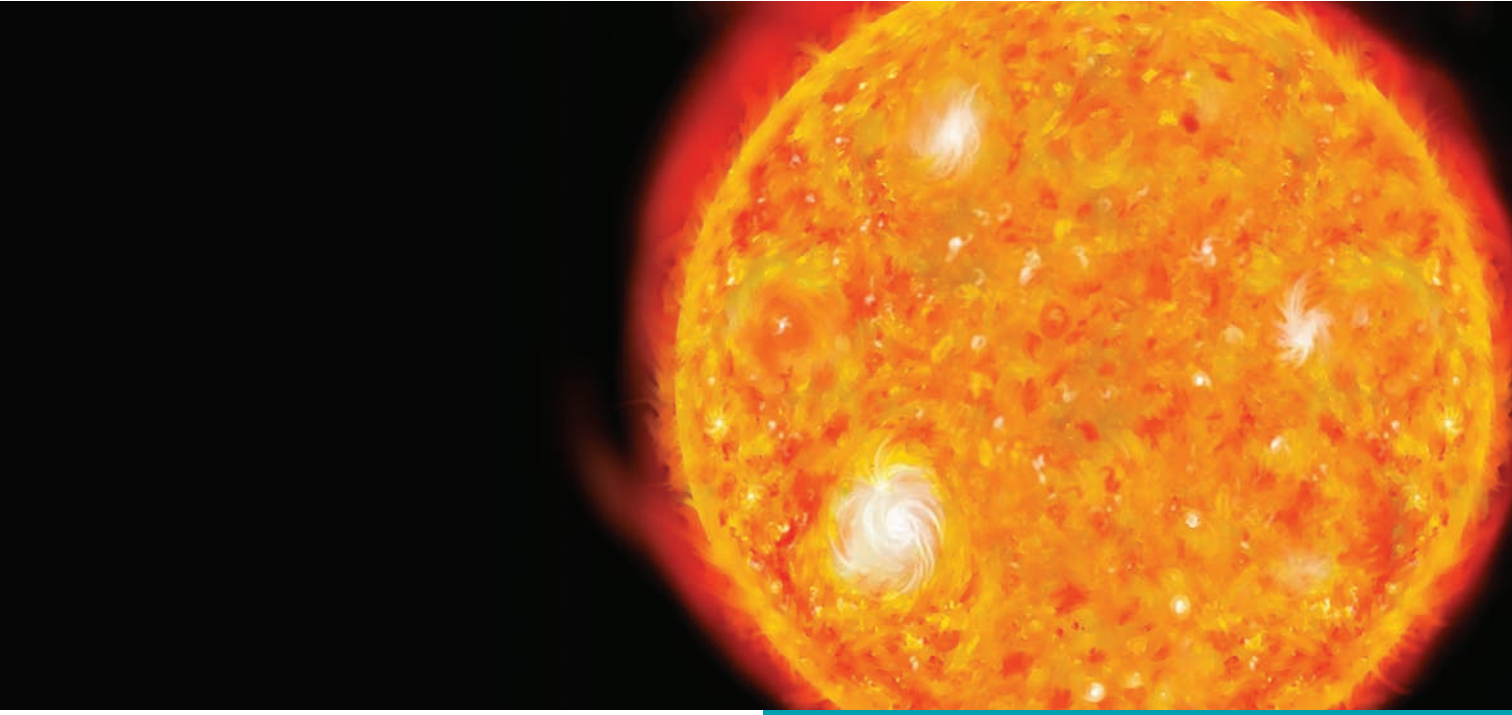
> Information technology

> Space agencies e.g. European Space Agency (ESA), National Astronautics and Space Agency (NASA)

> Communications technology

> Space research for industry or academia

Space tourism is one of the big businesses of the early 21st century, as both private industry and government organisations step up to the big challenge.



Free money for you

All UK / EU full-time students on this course will receive a Salford Subject Bursary of £1k each year (if passed without resits).

This is an automatic bursary that you do not need to apply for and will be taken off your £3k a year fees.

Open Days

You can come to visit us all year round - meet staff, students and get a tour of the campus - visit **www.salford.ac.uk/visit** to book your place online

Entry requirements

GCE A level: 240 points including a grade C in Physics, Maths or a numerate science.

Student profiles

Andy Glover

I currently work in the field of radiation protection. Recently I've been working for Nuvia Ltd at Windscale as a Health Physicist. I work in the National Nuclear Laboratory facility, providing on-site and radiation protection training courses. The Space Technology course from Salford University was very interesting and inspiring. For my final year project I investigated the feasibility of an electromagnetic launcher for space applications – and even though I don't use this in my current role of radiation protection at Windscale, the principles I learned throughout the course are put to daily use.

Anthony Haynes

I joined Salford University's Physics with Space Technology Degree Course in 1997 and graduated with a first class honours. During my year out in industry I worked for the Defence Evaluation Research Agency on design aspects of nuclear submarines. I found this experience invaluable and after graduating I took a job with Starchaser Industries where I have worked my way up to Head of Rocket Propulsion. After many years of hard work I have recently been appointed a directorship within the company.

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remarkable subject area of space...

Contact Enquiries:
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