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UNIVERSITY OF  
ABERDEEN

# Planetary Sciences

MSc

Launch your career  
in the rapidly  
expanding space  
sector.

[abdn.ac.uk/planetary-sciences](http://abdn.ac.uk/planetary-sciences)

## Overview

**Planned and delivered by the University of Aberdeen's ground-breaking planetary sciences team, this MSc provides an informed understanding of planetary atmospheres and landforms, space environment, remote sensing, data analysis, astrobiology and space systems engineering and instrumentation, giving students with a springboard for a career in the rapidly expanding space sector.**

We live in a time of unprecedented investment and collaboration in space exploration led by the 'big six' space agencies – NASA, ESA, Roscosmos, CNSA, ISRO and JAXA – and an ever-growing list of national space agencies and private companies such as SpaceX, Virgin Galactic and Blue Origin, who are keen to compete in the rapidly expanding spaceflight sector.

The ambitious plans for the following decades include sending humans back to the moon, establishing a colony on Mars, searching for life near Saturn, sending missions to probe the metalcore of a dead planet, and exploring the hidden ocean on Jupiter's moon Europa.

These plans pose significant scientific and technological challenges which can only be overcome through an interdisciplinary approach.

This MSc, therefore, draws on the diverse expertise and experience of the planetary sciences team at the University of Aberdeen to provide you with a detailed understanding of the pioneering research and technological developments that will guide the future development of space exploration.

## Why study this programme?

- Space exploration requires technological expertise and innovation, but also an understanding of the commercial, political and legal aspects of space agencies and the wider space industry. That is why the MSc Planetary Sciences is **open to students from any academic background.**
- The Department of Planetary Science is part of current and future missions to Mars: we have an instrument on the Mars Curiosity Rover, we are co-Investigators in the ESA Trace Gas Orbiter, and we have developed an instrument that will go to Mars in the forthcoming ExoMars mission.
- The interdisciplinary training included in this programme will provide you with the skills to tackle other problems outside of space exploration, such as instrument design, geology, microbiology and environmental sciences, planetary sciences and data analysis in remote sensing.
- According to the latest industry survey, Size & Health of the UK Space Industry 2020, the UK space sector is growing rapidly. Scotland alone is now home to 173 space organisations, with 1,951 space companies in total supporting a total of 126,300 jobs across the UK supply chain.



## Courses Include:

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- Comparative Planetology and the Atmosphere of Earth
- Basics of Remote Sensing and Geospatial Analysis
- Spectroscopy, Radiative Transfer and Retrieval
- Instrumentation, Design and Data for Planetary Exploration
- Earth and Planetary Surface and Internal Processes
- Astrobiology, Biogeochemistry and Geobiology for Explorers
- Sustainable Deep Space Exploration and Planetary Protection
- Space Weather and Radiation for Planetary Exploration



### MSc Planetary Sciences

"The diversity of topics on this MSc course allows you to

attack head on multiple areas of the space sector, from planetary formation, atmospheres and landforms, to data analysis and space instrumentation. This variety and interdisciplinary approach meant that even though I wasn't an engineer or a physicist, I was able to collect my own tailored tool-box of skills and techniques to apply in any industry, not only the rapidly expanding space sector.

The support from the planetary sciences team helped grow my confidence in tackling new areas of research with conviction and trust in my own knowledge. Most importantly, what I took away from this course is that I can venture into a completely alien subject and even if I don't know the answer, I now know how to find it."



## Entry Requirements

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Our minimum entry requirement for this programme is a degree at 2:1 (upper second class) UK Honours level (or an Honours degree from a non-UK institution which is judged by the University to be of equivalent worth).

### English Language Requirements:

International applicants must also meet the University's English language requirements.

For more information visit:

[www.abdn.ac.uk/international/english-requirements](http://www.abdn.ac.uk/international/english-requirements)

## Fees and Funding

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For the latest information on fees, funding and scholarships, please refer to [www.abdn.ac.uk/pgt/planetary-sciences](http://www.abdn.ac.uk/pgt/planetary-sciences)

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"There is space for everybody in Space. That is why the MSc Planetary Sciences is open to students from any academic background."

**Professor Javier Martin-Torres**

Programme Leader, MSc Planetary Sciences

## Find out more

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