

Girls into Geoscience Workshops and Taster Lecture 2020

Please rank your top 4 activities, we will aim to allocate you your top choices of workshop, however this will be on a first comes first served basis.

Many thanks!

Workshop 1: Palaeoecology, Landscapes, People and Climate – Dr Jessie Woodbridge

Come and explore how the fossil remains of plants (pollen) and algae (diatoms) preserved in lake and peat bogs for thousands of years are used to investigate past human-environment interactions and changes in global climate. Get hands-on experience of examining microfossils using light microscopes and reconstruct 10,000 years of environmental change in just 30 minutes!

Workshop 2: Mapping glacier change in the Peruvian Andes – Dr Caroline Clason, Dr Sally Rangecroft and Jess Kitch

In this workshop we will be looking at how glaciologists map changes in glacier area to better understand their response to a changing climate. We will be using satellite imagery from the Cordillera Blanca in the Peruvian Andes to investigate how glaciers in the region have evolved over recent years. We will also consider the impacts of this change in Andean glacier cover for downstream water, food, and energy security.

Workshop 3: Reconstructing catastrophic floods in Earths Martian desert– Prof Anne Mather

This workshop will use a combination of virtual reality, satellite imagery and field data to evaluate the role of climate and tectonics in generating catastrophic floods in the driest place on Earth, the Atacama Desert of South America. We will examine how we can reconstruct the events and how this can help us understand flood hazards in deserts and on other planetary bodies such as Mars.

Workshop 4: Causes and effects of earthquakes – Dr Zoe Mildon and Dr Lucy Campbell

Earthquakes can cause devastating damage to people that live in tectonically active regions, so it's important to try and understand what causes earthquakes and when and where the next one might happen. In this session you will run a short experiment in small groups to recreate some of the physical mechanisms of earthquakes, and test whether it is possible to predict earthquakes.

Workshop 5: Strong as a rock: tools to become an engineering geologist – Dr Irene Manzella

Most of our students find jobs in the Engineering Geology sector, which is where the geologists apply their knowledge to problems which arise from the interaction between the natural and built environments. During this hands-on workshop we will perform tests and analysis that are commonly used by engineering geologists in their daily job. Come and have a peek of what your future as professional geologist might look like!

Workshop 6: Planetary geology & Interplanetary Fieldwork – Dr Natasha Stephen

Geologists don't just study the Earth! There are other planets and bodies throughout our Solar System that share geological similarities to Earth as well as some very dramatic differences. Volcanoes on Mars are bigger than Mt Everest, they're much hotter on Venus and even frozen on Jupiter's moons! Marsquakes are a real thing and we really do have rovers, landers and satellites on planets, moons, comets and asteroids, as well as space rocks here on Earth to study. Join us on an interplanetary fieldtrip as we explore the geology of the Solar System from the luxury of a classroom – no space travel required!

Workshop 7: Taster Lecture: Submarine volcanism - Earth's mightiest volcanoes! – Dr Michelle Harris

In this session you will be introduced to the interactive lecturing style used in our degree courses, where we use a mixture of presentations and activities to enhance the learning experience, and also use our research to underpin our teaching. This taster lecture will cover the topic of submarine volcanism along mid-ocean ridges. You will be discovering how we study the ocean floor and learning about the products, processes and impact of submarine volcanism on the broader Earth System, in an interactive lecture delivered by Michelle Harris, one of the Earth Science lecturers at the University of Plymouth who research mid-ocean ridges.