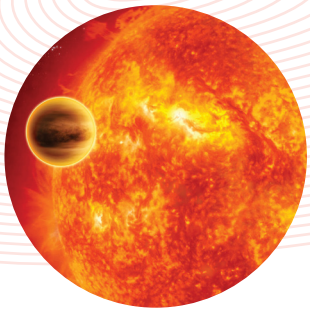
Biosignatures: Characterising Exoplanets with Spectroscopy



UNSW Science

A Year 12 Chemistry Depth Study at UNSW School of Chemistry

On-campus excursion dates available from **5–9 December 2022.**

The Year 12 Depth Study 'Biosignatures: Characterising Exoplanets with Spectroscopy' aims to engage students in a unique application of spectroscopy – the ability to detect life on exoplanets. This is an unusual yet compelling application of spectroscopy which will motivate a now crucial component of the new HSC Syllabus.

This depth study consists of online lesson plans and resources, suggested assessments and a capstone excursion to the UNSW Chemistry laboratories. In this capstone excursion, students will engage with authentic scientific experiments in a hands–on experiment where they will use UV–visible spectrometers to investigate the composition of sample "planets", as well as have the opportunity to engage directly with researchers to discuss science, university and career.

This depth study links with a popular worldwide current research topic, including by UNSW researchers, and thus inherently links research with teaching. Further, the depth study is designed to bridge the gap between high school and university science skills with introduction to university data analysis using information technology tools, independent research components, scaffolded "Speaking to a Scientist" sessions and a scientific debate.

The 'Biosignatures: Characterising Exoplanets with Spectroscopy' depth study is a way to encourage passion in your students, skill development and provide authentic information about university life and scientific career paths.

For further information contact:

A/Prof Kristopher Kilian

k.kilian@unsw.edu.au

unsw.to/ChemDepthStudy