



L-Università ta' Malta
Faculty of Science

Science in Careers

iChoose Fair
Saturday 19th July 2025

Speaker: Dr Fiona Sammut
Head, Department of Statistics & O.R.
Deputy Dean, Faculty of Science





Source: <https://www.thoughtco.com/mad-scientist-pictures-4122975> - last accessed on 14th July, 2025.

Why should you study Science at UM?

- Exciting and fun – research and fast-paced development
- Beneficial for our Society at Large – shape and understand the world around us
- Problem Solving and Decision Making
- Transferable Analytical Skills
- Career Opportunities



The Faculty of Science

The Departments

- Biology
- Chemistry
- Geosciences
- Physics
- Mathematics
- Statistics and Operations Research



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The Faculty of Science – Degrees Offered

- Undergraduate Degrees
 - Five departments offer joint honours degree with areas from within the faculty and with subjects other faculties – 4 years
 - Biology, Chemistry, Geosciences and Physics departments offer single honours degree – 3 years
- Postgraduate Degrees



The Faculty of Science Entry Requirements

Applicants must satisfy the **General Entry Requirements** for admission:

- the Matriculation Certificate
- Secondary Education Certificate passes at Grade 5 or better in Maltese, English Language and Mathematics.

Applicants must also satisfy **Special Course Requirements**.



The Department of Biology

Biology: Degrees Offered

- BSc (Hons) in Biology
- BSc (Hons) in Biology and Chemistry
- BSc (Hons) in Biology and Physics
- BSc (Hons) in Biology and Statistics and Operations Research
- BSc (Hons) in Biology and Mathematics
- BSc (Hons) in Science for Education and Communication with specialisation in Biology





What we all do...





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Biology trips



Biology trips



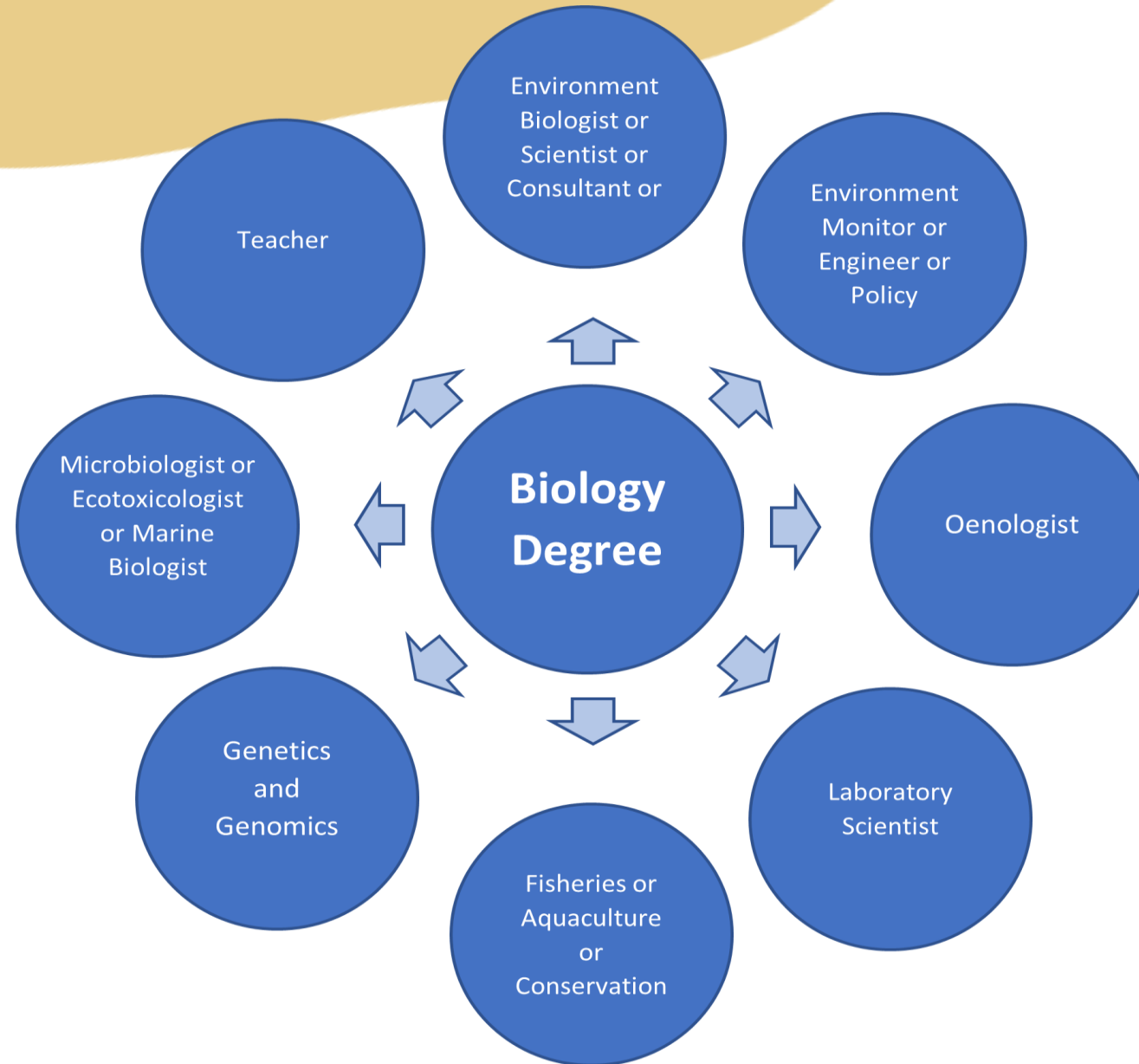
Biology trips



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Job Opportunities





**The
Department
of Chemistry**

Chemistry: Degrees Offered

- BSc (Hons) in Chemistry
- BSc (Hons) in Chemistry with Materials
- BSc (Hons) in Chemistry and Biology
- BSc (Hons) in Chemistry and Statistics and Operations Research
- BSc (Hons) in Chemistry and Mathematics
- BSc (Hons) in Chemistry and Physics
- BSc (Hons) in Science for Education and Communication with specialisation in Chemistry

Chemistry everyday and everywhere

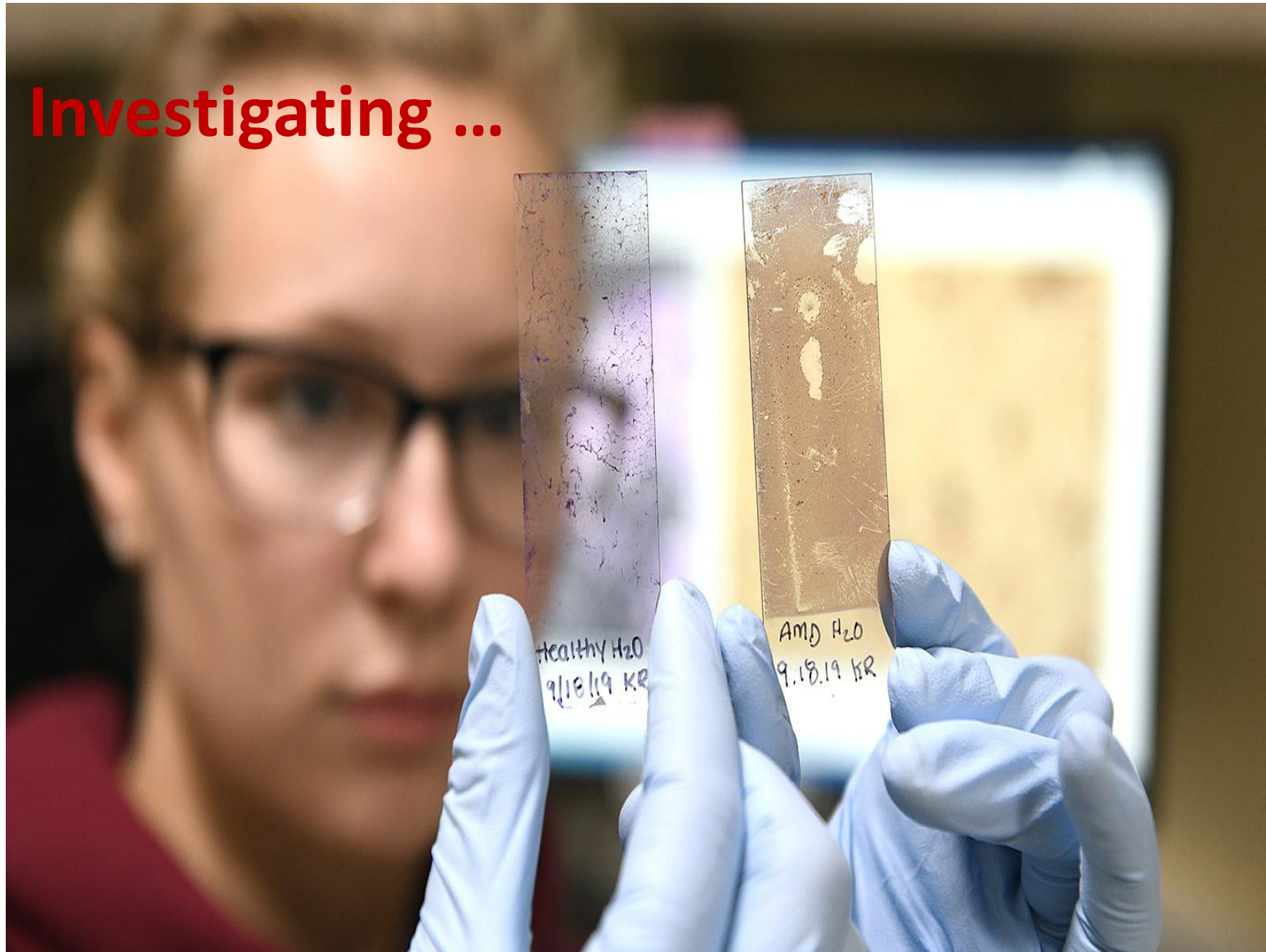
- Chemistry plays an important role in everyday life.
 - Chemistry is not limited to beakers and laboratories.
 - Chemistry is involved in every aspect of the life around us.
 - Many of the changes we observe in everyday lives are due to chemical reactions.
- **C**ommunity
 - **H**ealth
 - **E**nvironment
 - **M**edicine
 - **I**ndustry
 - **S**ciences
 - **T**eaching
 - **R**esearch
 - **Y**ou



Analysing



Investigating ...



Monitoring ...



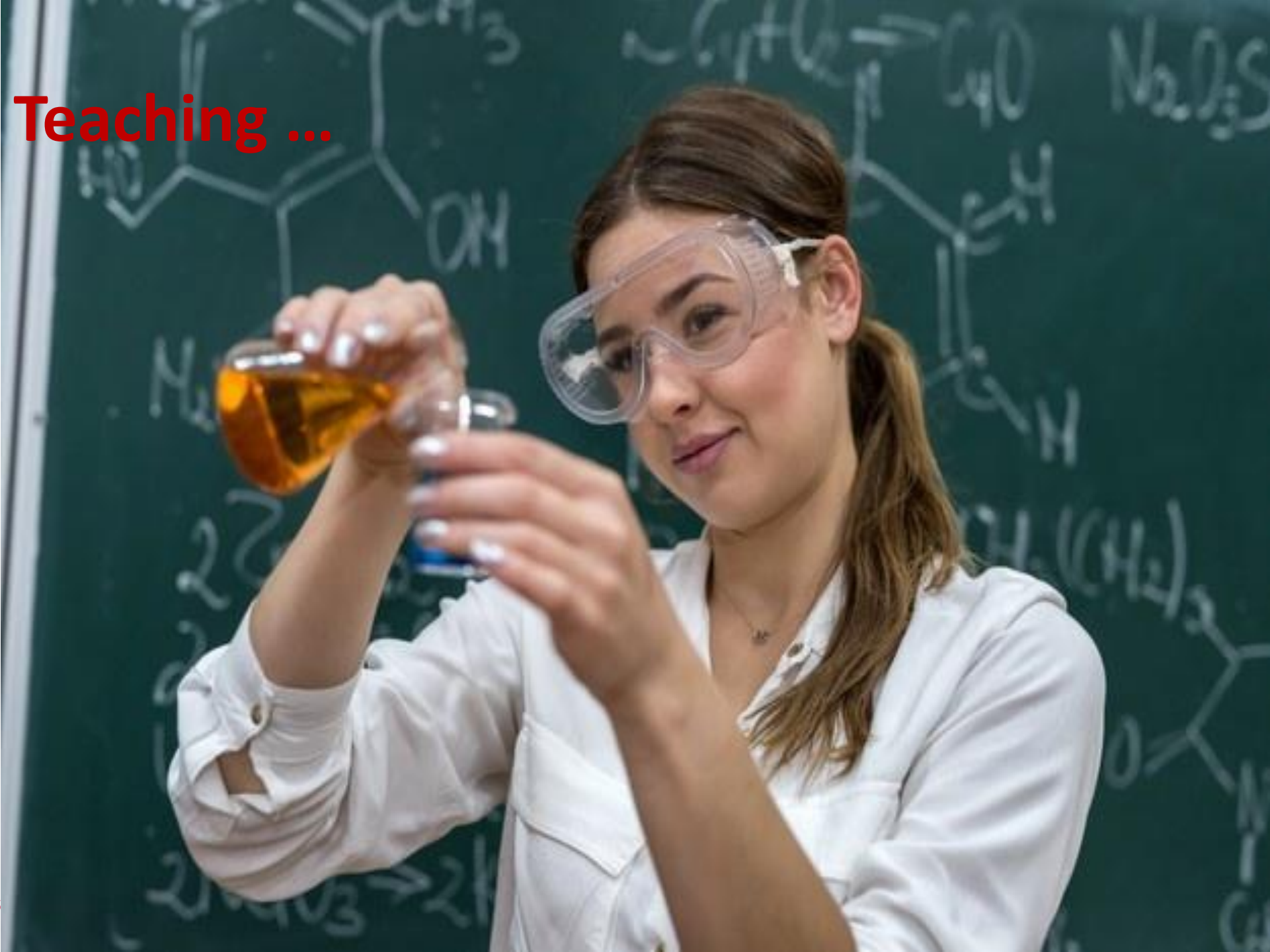
Synthesising ...



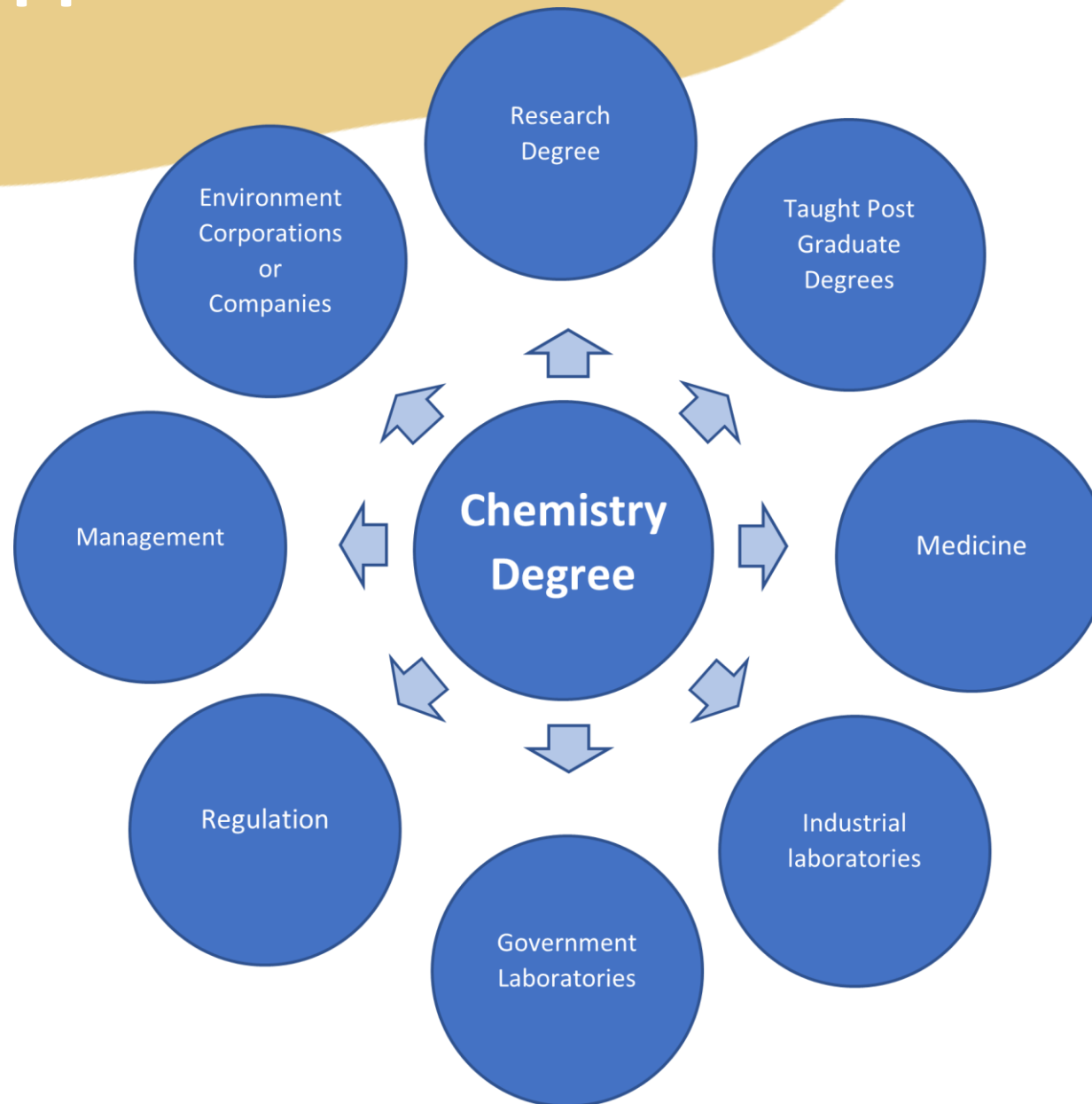
Restoring ...




Teaching ...



Job Opportunities





**The
Department
of
Geosciences**

Geosciences: Degrees Offered

- BSc (Hons) in Geosciences
- BSc (Hons) in Science for Education and Communication with specialisation in Geosciences



Earthquake



Floods



Tsunami



Drought



Coastal Erosion



Air Pollution

Climate Change



Where the Science comes in

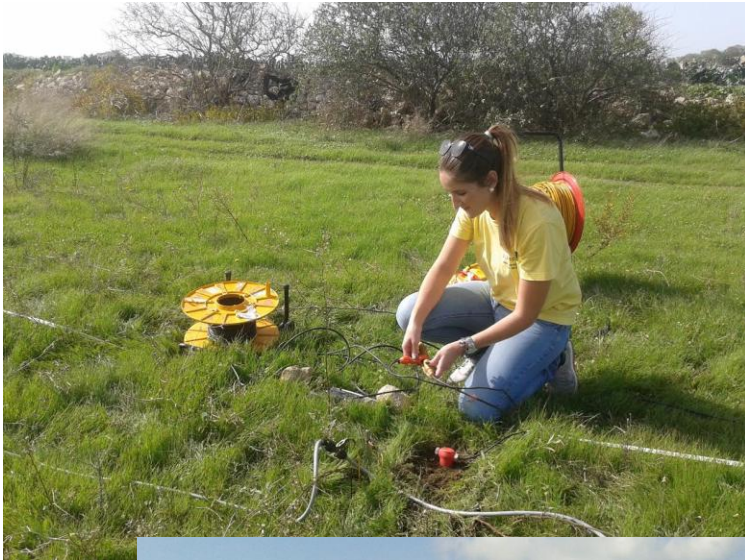
- Many problems can be avoided by changing human behaviour
- Some of these problems cannot be avoided because that is how our planet behaves
- BUT: to avoid or solve problems, we need to

UNDERSTAND HOW THE EARTH WORKS.

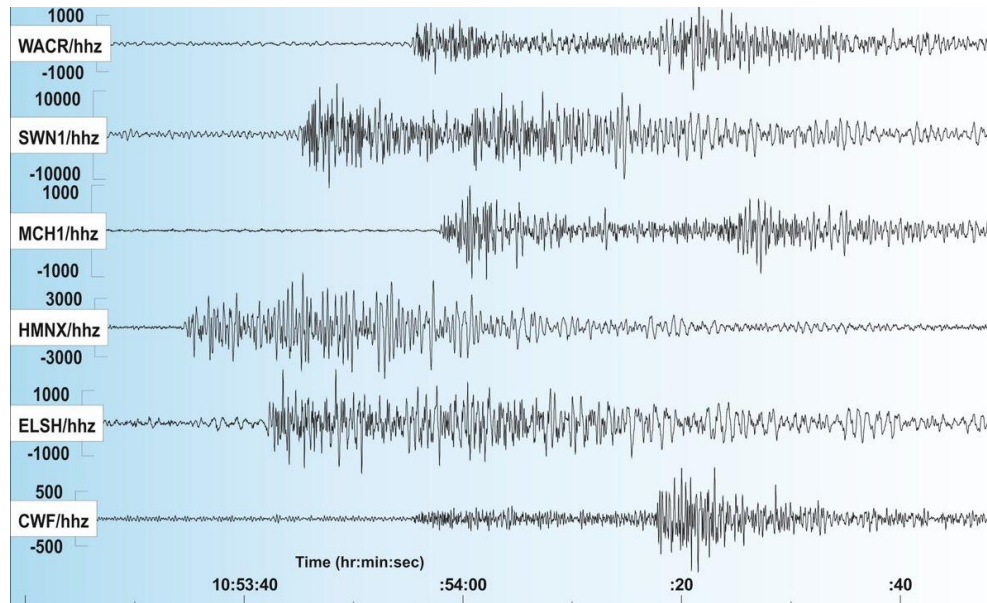
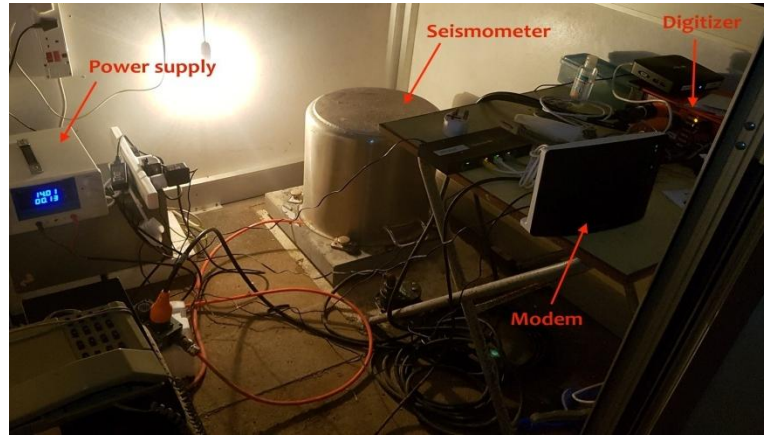
Studying rocks



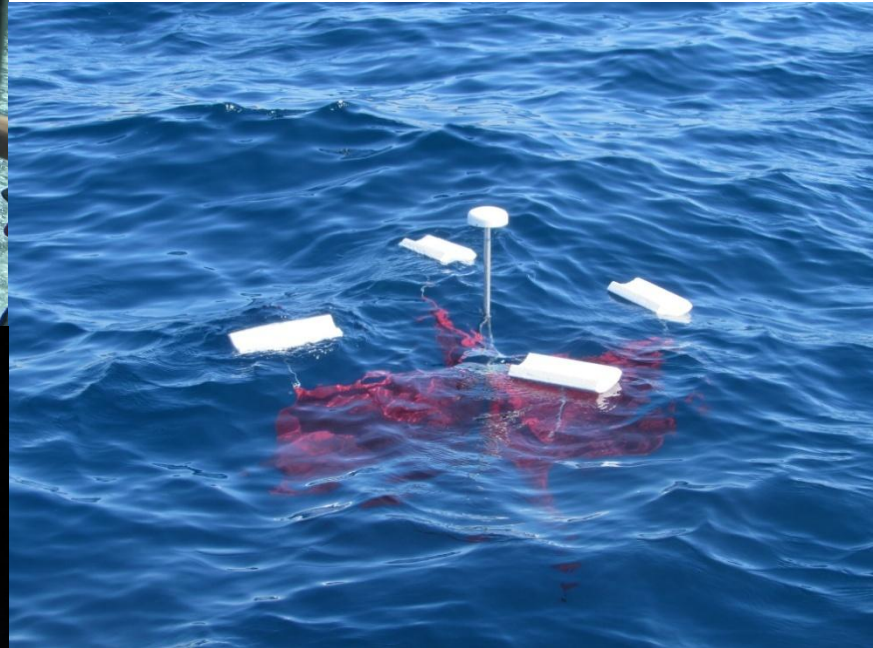
Studying what lies beneath the rocks



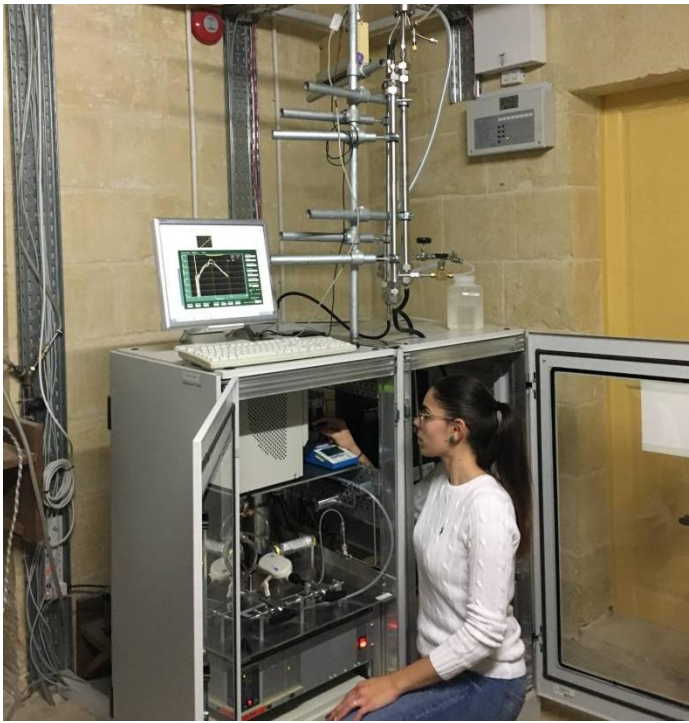
Studying Earthquakes, Volcanoes, and the seafloor



Studying the Oceans

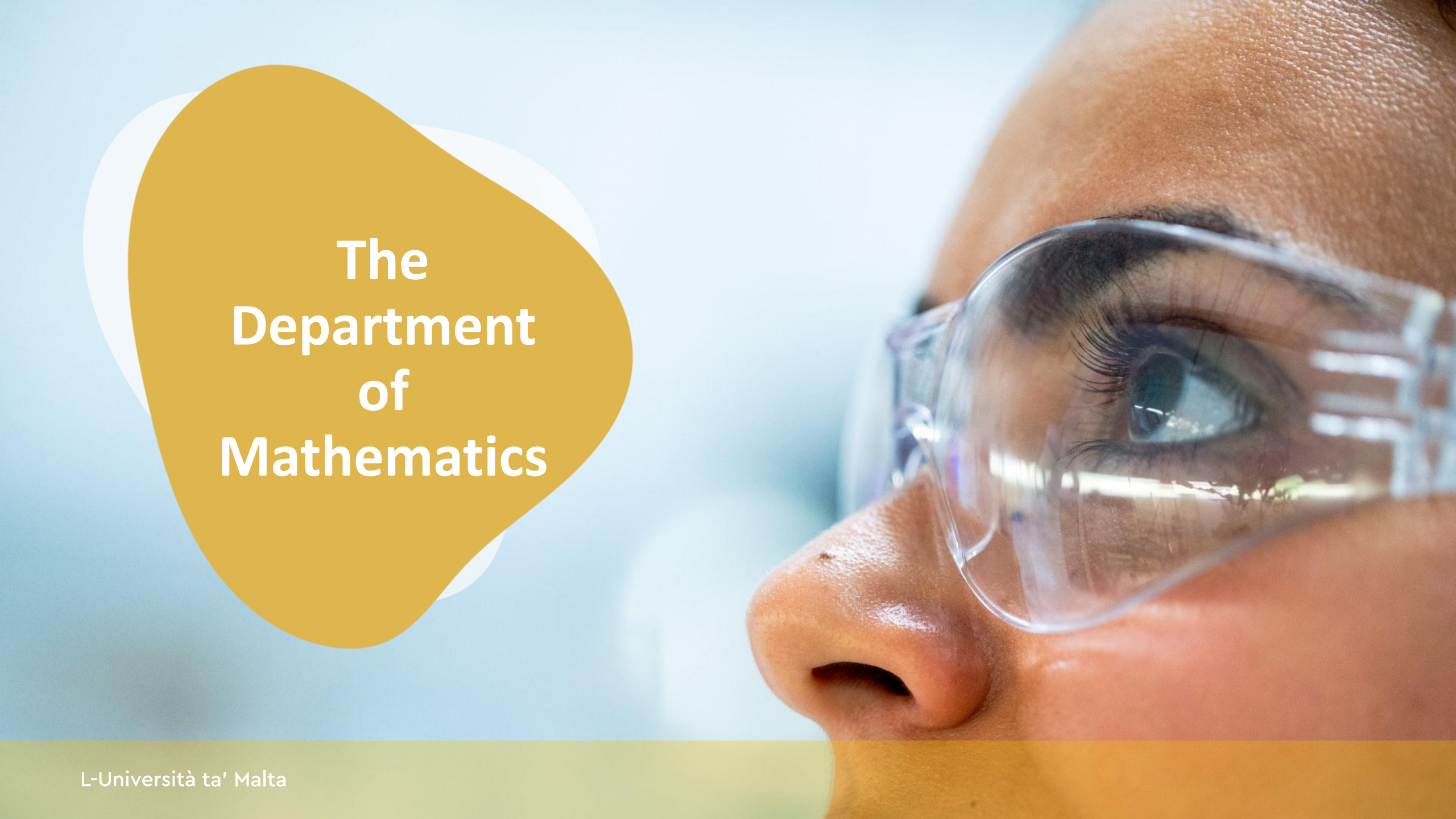


Studying the Atmosphere



Job Opportunities





**The
Department
of
Mathematics**

Mathematics: Degrees Offered

- BSc (Hons) in Mathematics and Banking and Finance
- BSc (Hons) in Mathematics and Biology
- BSc (Hons) in Mathematics and Chemistry
- BSc (Hons) in Mathematics and Computing Science
- BSc (Hons) in Mathematics and Philosophy
- BSc (Hons) in Mathematics and Physics
- BSc (Hons) in Mathematics and Statistics and Operations Research

NEW DEGREE (from October 2024)

B.Sc. in Financial Mathematics, Actuarial and Risk Management

in collaboration with the departments of Statistics and Operations Research (Science) and Insurance and Risk Management (FEMA)

Target students

Mathematically and/or analytically strong students who wish to pursue a financial career in actuarial science, insurance, underwriting and/or risk management in any financial services firm or related entities.

Entry requirements

Pure Mathematics (*A-Level at grade C or better*)

Duration

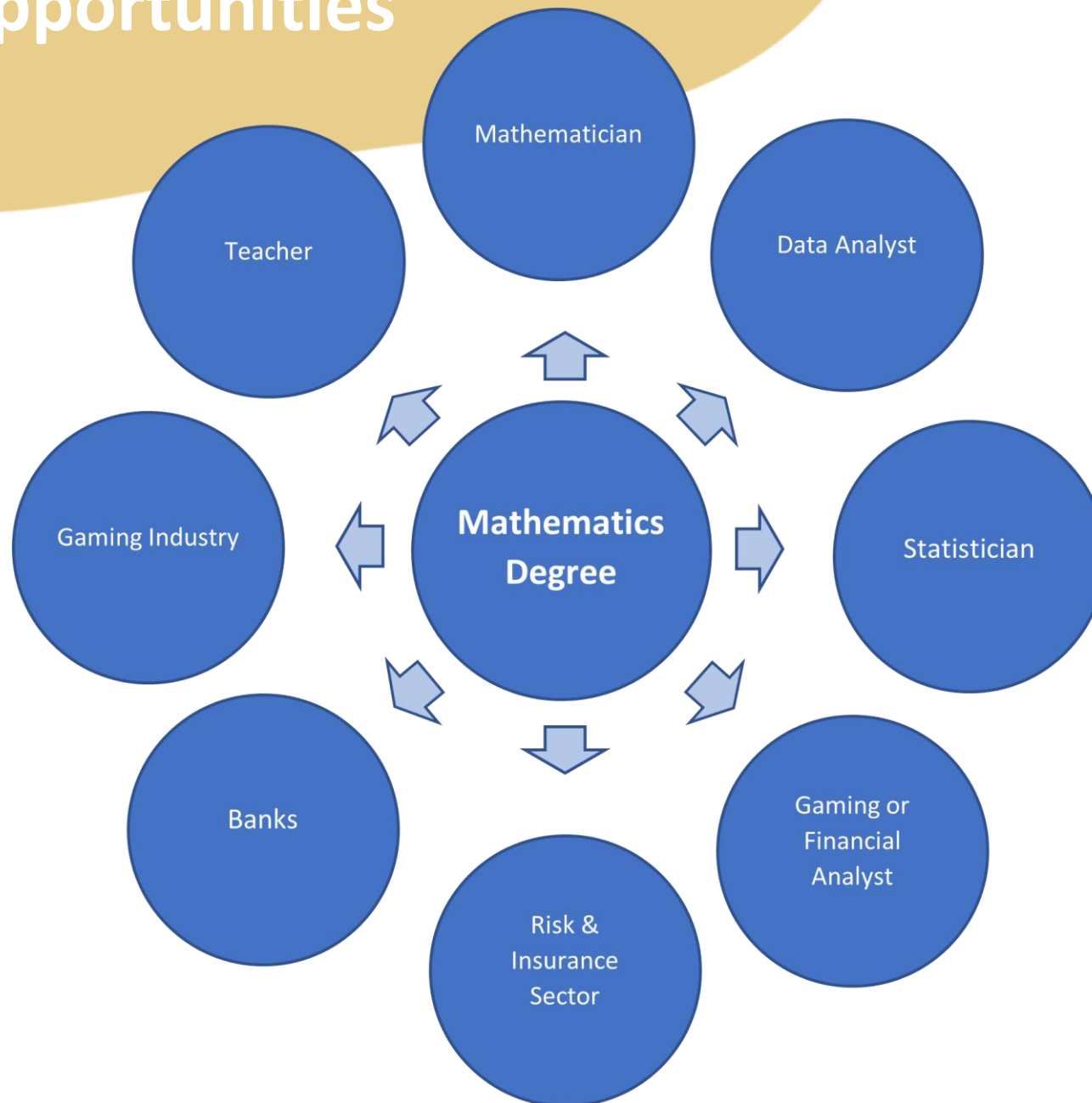
4 years



**Math.
It's fun.
Provably.***

* See us at Science in the City

Job Opportunities





The Department of Physics

Physics: Degrees Offered

- BSc (Hons) in Physics
- BSc (Hons) in Computational Physics
- BSc (Hons) in Physics and Banking and Finance
- BSc (Hons) in Physics and Biology
- BSc (Hons) in Physics and Chemistry
- BSc (Hons) in Physics and Mathematics
- BSc (Hons) in Physics and Statistics and Operations Research
- BSc (Honours) in Physics, Medical Physics and Radiation Protection
- BSc (Honours) in Science for Education and Communication with specialisation in Physics

Topics Covered in the Course

Mathematical methods, classical mechanics, etc.

Relativistic & quantum mechanics, electromagnetism, etc.

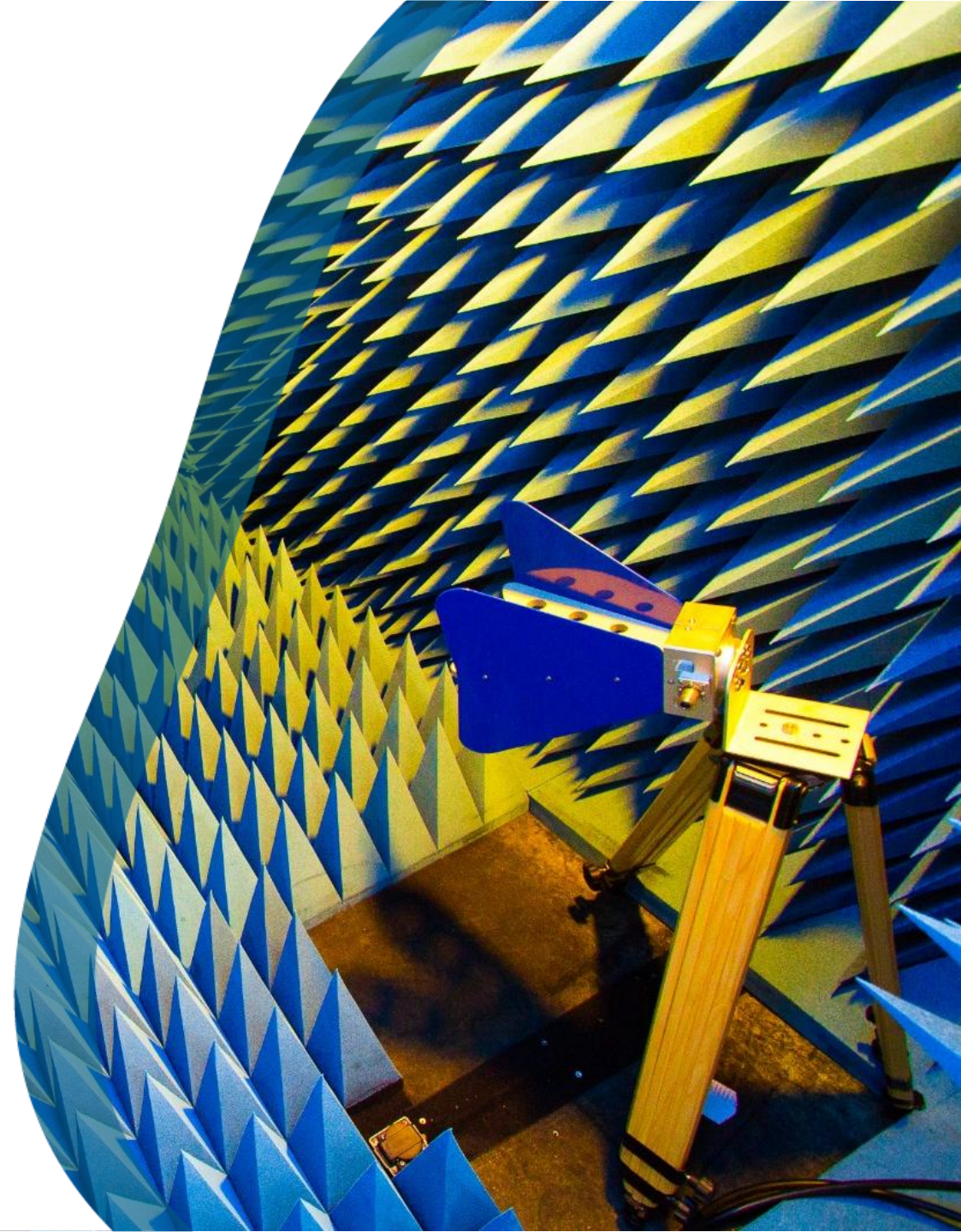
Atomic physics, statistical mechanics, general relativity, etc.

Streams: Space sciences, electromagnetics, quantum physics

Physics research I

Electromagnetics

- Medical applications of microwaves
- Antenna design
- Measurement & modelling of electromagnetic fields



Physics research II

Astronomy & astrophysics

- Radio astronomy and instrument design
- Galaxy formation and development
- Astro-informatics



Physics research III

Quantum optics & condensed matter

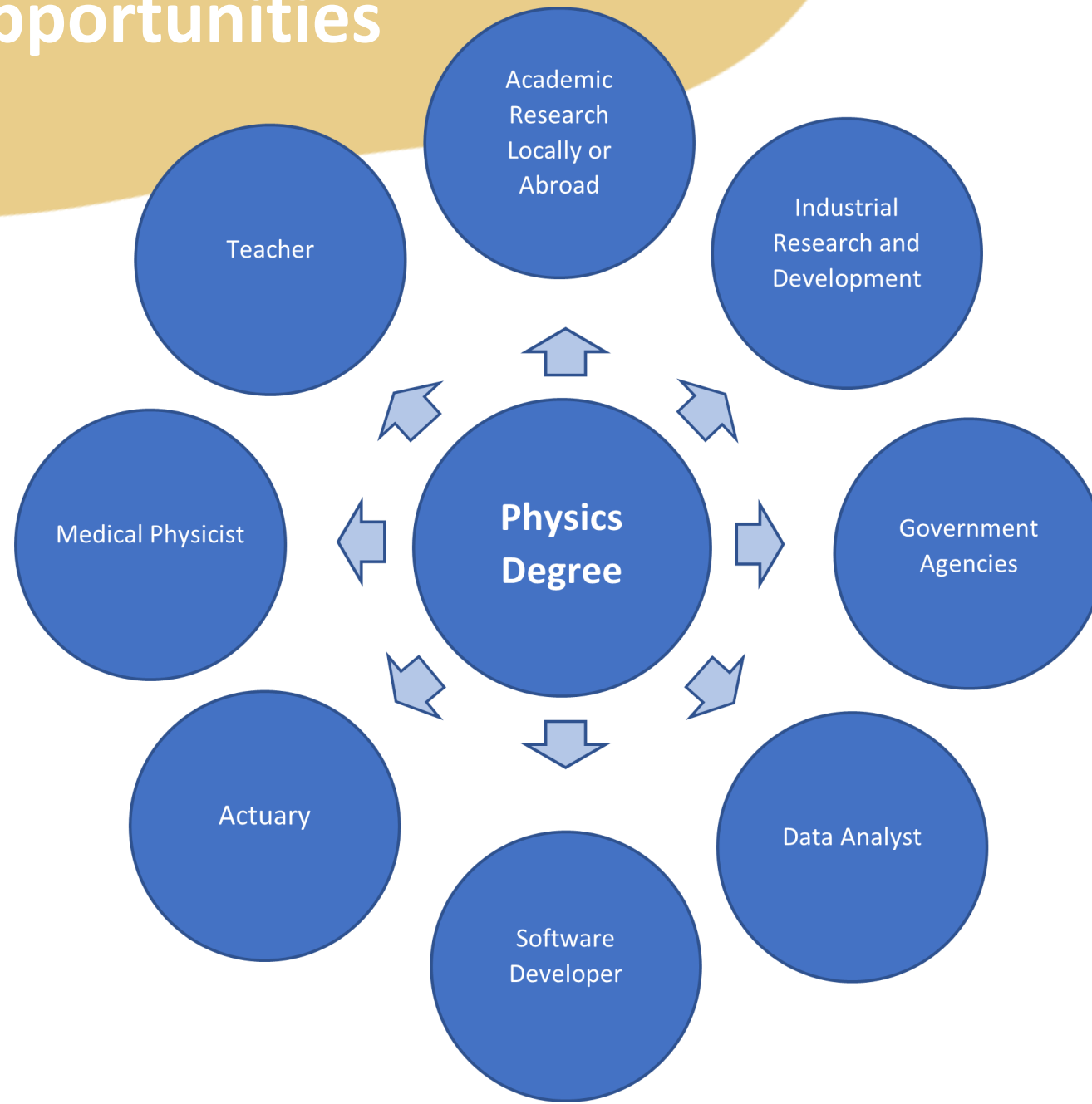
- Quantum optics and optomechanics
- Quantum thermodynamics and quantum information
- Mesoscopic quantum mechanics






**The department
boasts of several
experimental
facilities**

Job Opportunities





**The
Department
of Statistics
and
Operations
Research**

Statistics and Operations Research: Degrees Offered

- BSc (Hons) in Statistics and Operations Research and Banking and Finance
- BSc (Hons) in Statistics and Operations Research and Biology
- BSc (Hons) in Statistics and Operations Research and Chemistry
- BSc (Hons) in Statistics and Operations Research and Computing Science
- BSc (Hons) in Statistics and Operations Research and Mathematics
- BSc (Hons) in Statistics and Operations Research and Physics

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B.Sc. in Financial Mathematics, Actuarial and Risk Management

in collaboration with the departments of Mathematics(Science) and Insurance and Risk Management (FEMA)

Target students

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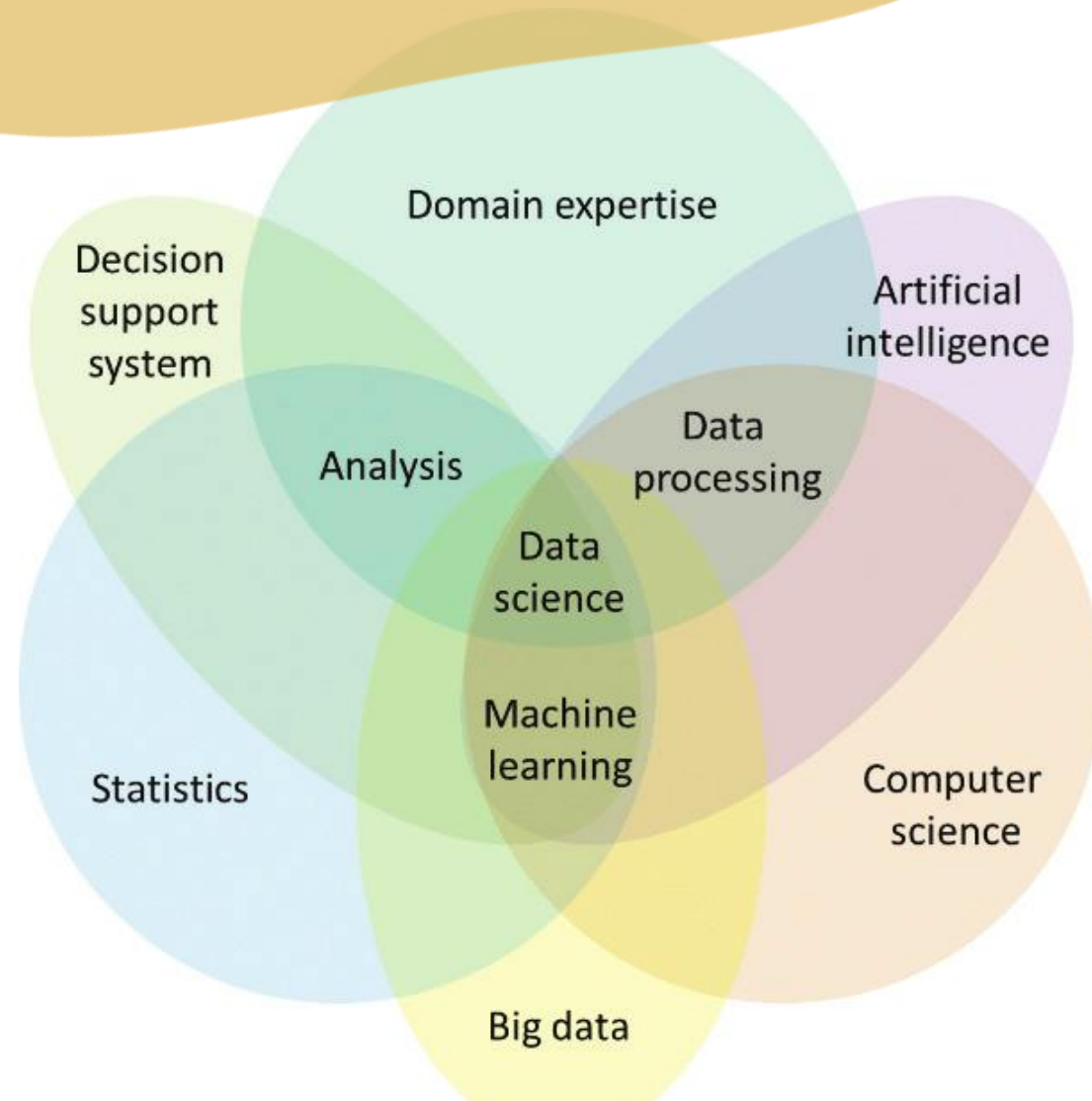
Entry requirements

Pure Mathematics (*A-Level at grade C or better*)

Duration

4 years

Statistics



Operations Research



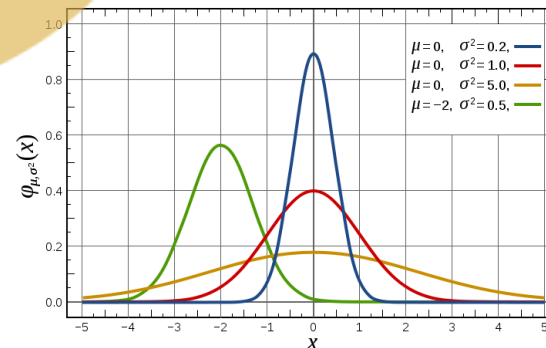
Source: <https://towardsdatascience.com/why-operations-research-is-awesome-an-introduction-7a0b9e62b405> - last accessed on 11th July, 2024.

Job Opportunities



Job Titles

- Statistician
- Data Analyst
- Marketing Analyst
- Insight Analyst
- Quantitative Analyst
- Business Intelligence Developer
- Data Champion.











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Thank you for your attention.

If you have any questions, now is the right time to ask! You can also contact us on:

 Ms Marvic Cuschieri

 (+356) 2340 2450

 /um.sciencefaculty

 science@um.edu.mt

<http://www.um.edu.mt/science>

<https://www.scubed.org.mt/>



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Come find us at the University of Malta Stand!