



UNIVERSITÀ
DEGLI STUDI
DI TRIESTE



BSc in EARTH SCIENCES FOR SUSTAINABLE DEVELOPMENT
(ESSD)

Geoscientists and Sustainability

Georesources and Geohazard
are key area of action in the
quest for sustainable future



Geoscientists and Sustainability



Geoscientists study the Earth and the processes that shape it.

Geoscientists are, and increasingly will be, key actors in tackling the pressing challenges posed by energy transition, responsible utilization of Georesources and Geohazard.

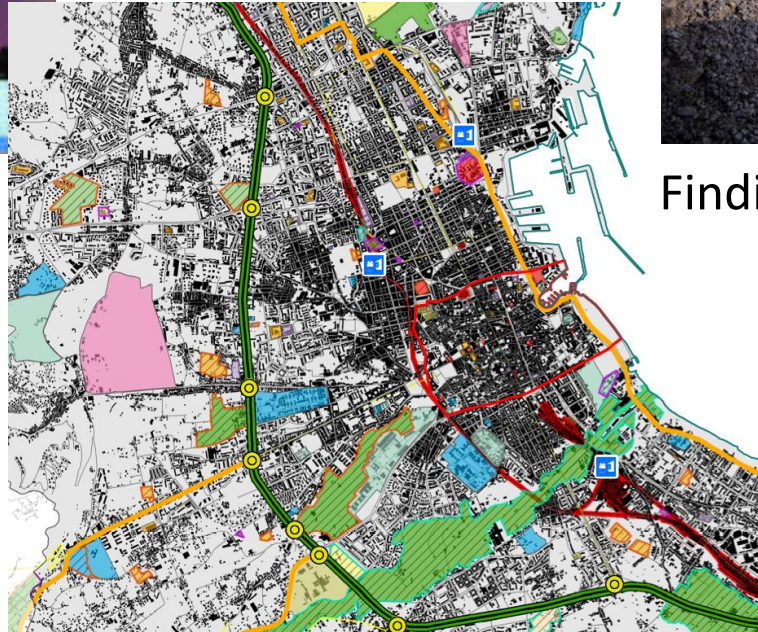


Geoscientists and Sustainability



Jessica Watkins, Geologist, Astronaut.

Research



Preventing and mitigating geohazard



Finding and sustainable management of georesources



Geoscientists and Sustainability



Global challenges require global answers.

**Job opportunities in industry, public,
academia... worldwide.**

Geoscientist is a “global” professional.



BSc in Earth Sciences for Sustainable Development (ESSD)

HIGHLIGHTS

- Taught entirely in **English**
- Focus on **Georesources** and **Geohazards**
- Core courses in the **fundamentals of Geosciences**
- **Novel courses** to learn a **modern approach** to the **challenges** of **Georesources** and **Geohazards**
- **Collaborations** with **UN** and other **international institutes** in Trieste

GOALS

- **Support** growth of **Sustainable Development culture**
- **Train qualified professionals** for the **global job market**
- **Get students ready** to pursue **higher level degrees**
- **Favor knowledge transfer** to less developed countries



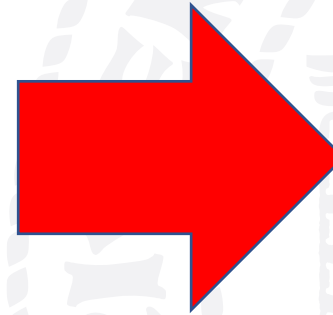
WHY TRIESTE?

High quality teaching and research in geosciences

Home of national and international institutions that operate in the fields of geosciences



OGS
Istituto Nazionale
di Oceanografia
e di Geofisica
Sperimentale



**Great potential for
creating
opportunities**



**CNR
ISMAR**
ISTITUTO
DI SCIENZE
MARINE



**UNIVERSITÀ
DEGLI STUDI
DI TRIESTE**

WHY TRIESTE?

Opportunity to access higher-level degrees

MSc in Geophysics and Geodata

Master's degree in Sustainable Blue Economy

PhD School in Earth Sciences, Fluid Dynamics and Mathematics

ICTP Postgraduate Diploma Programme



**UNIVERSITÀ
DEGLI STUDI
DI TRIESTE**

THE SAN GIOVANNI CAMPUS



BSc in Earth Sciences for Sustainable Development (ESSD)

Admission requirements:

- Valid high-school diploma.
- Selection through TOLC (online attitudinal and knowledge test).
- Minimum B2 level English proficiency

Max 50 students/year:

- Ranking based on TOLC test results

Enrolments scheduled to open end May - early June 2025

keep an eye on the UniTS website for the call for admissions!



STUDY PLAN

strong fundamentals and focus on the challenges of Sustainable Development

FIRST YEAR

- General Geology and Physical Geography
- Fundamentals of Mathematics for Earth Sciences
- Fundamental of Physics for Earth Sciences
- Sedimentary Geology and Paleontology
- Chemistry
- Geochemistry of Planet Earth
- Mineralogy

SECOND YEAR

- Petrography
- Structural Geology and Rock Mechanics
- Earth Surface Processes, Landforms and Climate Change
- Geophysics
- Digital Geologic and Thematic Mapping
- Engineering Geology and Applied Geophysics
- Introduction to Geologic Data Acquisition and Interpretation
- One free-choice exam

THIRD YEAR

- Georesources and Elements of Petrogenesis
- Hydrogeology and water management
- Geohazards and sustainability
- Environmental Geochemistry and Mineralogy
- Geological Surveying
- Introduction to Data Science for Geosciences
- One free-choice exam
- Traineeship
- Thesis



STUDY PLAN

strong fundamentals and focus on the challenges of Sustainable Development

FIRST YEAR

- General Geology and Physical Geography
- Fundamentals of Mathematics for Earth Sciences
- Fundamental of Physics for Earth Sciences
- Sedimentary Geology and Paleontology
- Chemistry
- Geochemistry of Planet Earth
- Mineralogy

SECOND YEAR

- Petrography
- Structural Geology and Rock Mechanics
- **Earth Surface Processes, Landforms and Climate Change**
- Geophysics
- **Digital Geologic and Thematic Mapping**
- **Engineering Geology and Applied Geophysics**
- **Introduction to Geologic Data Acquisition and Interpretation**
- One free-choice exam

THIRD YEAR

- Georesources and Elements of Petrogenesis
- Hydrogeology and water management
- Geohazards and sustainability
- Environmental Geochemistry and Mineralogy
- Geological Surveying
- Introduction to Data Science for Geosciences
- One free-choice exam
- Traineeship
- Thesis



STUDY PLAN

strong fundamentals and focus on the challenges of Sustainable Development

FIRST YEAR

- General Geology and Physical Geography
- Fundamentals of Mathematics for Earth Sciences
- Fundamental of Physics for Earth Sciences
- Sedimentary Geology and Paleontology
- Chemistry
- Geochemistry of Planet Earth
- Mineralogy

SECOND YEAR

- Petrography
- Structural Geology and Rock Mechanics
- Earth Surface Processes, Landforms and Climate Change
- Geophysics
- Digital Geologic and Thematic Mapping
- Engineering Geology and Applied Geophysics
- Introduction to Geologic Data Acquisition and Interpretation
- One free-choice exam

THIRD YEAR

- **Georesources and Elements of Petrogenesis**
- **Hydrogeology and water management**
- **Geohazards and sustainability**
- **Environmental Geochemistry and Mineralogy**
- **Geological Surveying**
- **Introduction to Data Science for Geosciences**
- One free-choice exam
- Traineeship
- Thesis



WHAT YOU CAN DO NOW IF YOU ARE NOT ITALIAN CITIZEN

Do your English TOLC-I test!

<https://www.cisiaonline.it/tolc/english-tolc-i/structure-and-syllabus>




WHAT YOU CAN DO NOW


Do your English TOLC-I test!

<https://www.cisiaonline.it/tolc/english-tolc-i/structure-and-syllabus>





TOLC ▾English TOLC ▾Altri test ▾Prima del TOLC ▾Bisogno di aiuto? ▾



Home / TOLC / ENGLISH TOLC-I / Structure and syllabus

STRUCTURE AND SYLLABUS

DATES

UNIVERSITIES

The English TOLC-I

English TOLC-I is required by some universities for admission to degree courses in Engineering and other technical and scientific fields, mainly held in English language.

Before booking an English TOLC-I, check the type of test required on the admission notice for your university degree course.

You can find on your university website all the detailed information about the admission procedure and deadlines.

Structure of the English TOLC-I

50 questions divided into 4 sections:

- mathematics
- logic
- sciences
- reading comprehension.

SECTIONS	QUESTIONS	DURATION (mins)
Logic	10	20
Reading comprehension	10	20
Mathematics	20	50
Sciences	10	20
TOTAL	50	110



WHAT YOU CAN DO NOW

Do your English TOLC-I test!

<https://www.cisiaonline.it/tolc/english-tolc-i/structure-and-syllabus>



Click on “dates” to see the available @home TOLC

The screenshot shows the CISIA website's 'English TOLC-I' page. The top navigation bar includes the CISIA logo and links for TOLC, English TOLC, Altri test, Prima del TOLC, and Bisogno di aiuto?. The breadcrumb trail reads 'Home / TOLC / ENGLISH TOLC-I / Structure and syllabus'. A sidebar menu on the left has 'STRUCTURE AND SYLLABUS' selected, with 'DATES' and 'UNIVERSITIES' as sub-links. The main content area is titled 'The English TOLC-I' and explains that the test is required for admission to degree courses in Engineering and other technical and scientific fields. It advises checking the admission notice for the university degree course and finding detailed information on the university website. Below this, the 'Structure of the English TOLC-I' is detailed as 50 questions divided into 4 sections: mathematics, logic, sciences, and reading comprehension. A table summarizes the sections, questions, and duration.

SECTIONS	QUESTIONS	DURATION (mins)
Logic	10	20
Reading comprehension	10	20
Mathematics	20	50
Sciences	10	20
TOTAL	50	110



WHAT YOU CAN DO NOW IF YOU ARE NOT ITALIAN CITIZEN

**Submit documents to the DreamApply platform for pre-evaluation (it costs 10 euros)
AS SOON AS THE PLATFORM OPENS:**

<https://apply.units.it/courses/course/96-b-earth-sciences-sustainable-development>



WHAT YOU CAN DO NOW IF YOU ARE NOT ITALIAN CITIZEN

AFTER EVALUATION OF SUBMITTED DOCUMENTS

You will then receive an offer with instructions to:

- **Apply for VISA**
- **Apply to call for admissions**
- **Finalize enrolment**



CONTACTS

PERSPECTIVE STUDENTS SUPPORT

orientamento@units.it

ENROLLMENT AND ADMISSIONS

areatecnoscientifica.ammissioni@amm.units.it

TEACHING SECRETARIAT of MIGe

didattica.dmg@units.it



BSc in Earth Sciences for Sustainable Development (ESSD)

**GEOLOGY KNOWS
NO BORDERS!**



**UNIVERSITÀ
DEGLI STUDI
DI TRIESTE**