





What is the TESS Graduate School (EUR) ?

EUR Ecole universitaire de recherche

Master's and **doctoral** level study program supported by the ANR and in collaboration with the local **research environment** (labs & industry).



Toulouse Graduate School of Earth and Space Science





What is the TESS Graduate School (EUR) ?

Toulouse Graduate School of Earth and Space Science

Training future generations to

- monitor and understand the Earth
- manage natural resources and the environment
- explore our place in the Universe

4 fields of study

Astrophysics & space science

Earth and environmental science

Ocean, atmosphere, climate

Biodiversity, ecology, evolution

TESS master's program

**Complementary
Lectures
(≈100 hours)**

**30 ECTS
as a supplement
to the master's degree**

Interdisciplinarity

Observation and data management

Mobility and Openness to the World

Choosing interdisciplinarity

Sharing lectures with students from four master's programs
 Being trained by teachers, researchers, engineers, from 12 research entities

SUTS
 Sciences de l'univers
 et technologies
 spatiales



STPE
 Sciences de la Terre
 et des planètes,
 environnement



SOAC
 Sciences de l'océan,
 de l'atmosphère
 et du climat



BEE
 Biodiversité,
 écologie,
 évolution



Streams included

<p>ASEP Astrophysique, Sciences de l'Espace et Planétologie</p>	<p>TERRE Exploration, Ressources, Recherche, Evolution</p>	<p>DC Dynamique du Climat</p>	<p>EA Ecosystèmes et anthropisation</p>
<p>TSI Techniques spatiales et Instrumentation</p>	<p>OGDE Observation et Gestion Durable de l'Environnement</p>	<p>EE Etudes Environnementales</p>	<p>GATE Géomatique pour l'aménagement des territoires et l'écologie</p>

Choosing interdisciplinarity

Interdisciplinary options



- Space weather
- Exoplanets
- Global survey of Earth and planetary crusts, landscapes and resources
- The carbon cycle
- Contaminants, pollution and man-made perturbations
- Human impacted land-ocean continuum
- Space geodesy
- The water cycle (rainfall, hydrology, cryosphere)
- Monitoring the functioning and dynamics of ecosystems using space-based and in situ methods
- Advanced numerical modelling

**9 ECTS
choose 3
out of 10
options**

Practising observation and data management

Core Courses



- Making measurements
- Processing and managing data
- Putting data in broader context

3 x 3 ECTS

Reinforced internship



- 4 to 8 weeks in addition to the master's internship
- stipend of €900 per month

6 ECTS

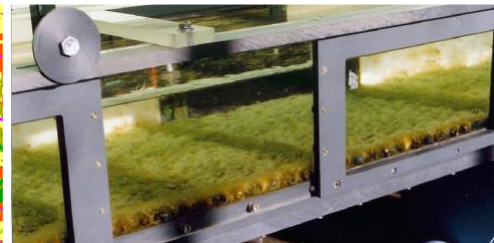
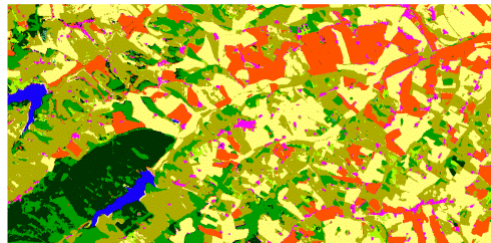
Practising observation and data management

Observation oriented projects



- Astronomical observations
- Airborne instrumentation
- In-situ measurements of the marine environment
- Combining in-situ and space-based observations of continental surfaces
- Laboratory fluid dynamics
- Monitoring of hydrochemical and sedimentary parameters

**6 ECTS
choose 1
out of 6
options**



Choosing mobility and Openness to the world

“Settling In” Grant

- **€1500 granted to each student registered at an institution outside of France in the year preceding admission to the TESS program**
- **€800 granted to each student registered at an institution outside the *Academie de Toulouse* in the year preceding admission to the TESS program**

Openness to the world

- **Courses offered partially in English**
- **Access to TESS’ international network**
- **“Going abroad” grant: up to €5000 for international mobility during internships**

TESS interdisciplinary teaching program schedule

S9

CORE COURSE 3
26h CTD
Fridays 4-6pm

**OBSERVATION
ORIENTED PROJECT 2**
30h TP
Supervised personal
work

INTERDISCIPLINARY OPTIONS
26h CTD
Tuesdays 6-8pm

S8

CORE COURSE 2
26h CTD
Tuesdays 6-8pm and
Fridays 4-6pm

**OBSERVATION
ORIENTED PROJECT 1**
30h TP fieldwork
June

INTERDISCIPLINARY OPTIONS
26h CTD in one week
late June / early July

S7

CORE COURSE 1
26h CTD
Fridays 4-6pm

INTERDISCIPLINARY OPTIONS
26h CTD
Tuesdays 6-8pm

UE 7 Reinforced internship
6 ECTS

Applications

First apply to your selected master's program

- Application to the desired master's program before 24 March via: <https://www.monmaster.gouv.fr>

Then apply to the TESS Graduate School

- Application (CV, academic record, letter of motivation) to be submitted before 24 June via: <https://tess.omp.eu/applications/>

And after the master's? The TESS doctoral program

- Accessible to PhD students from the SDU2E Doctoral School
“Sciences de l’Univers, de l’Environnement et de l’Espace”
- Access to the **INTERDISCIPLINARY OPTIONS** of the TESS master’s program to be counted as scientific training for the PhD
- Two types of bursaries are available
 - **TESS Booster**
4 to 6 grants per year
(up to €10 000 each) for the duration of the PhD
 - **TESS Mobility**
10 to 15 grants per year for international mobility during the PhD

Take home message

The Toulouse Graduate School of Earth and Space Science

- is an **additional course** common to four master's degrees at the University of Toulouse III, and provides a **supplement to the master's degree** worth 30 ECTS.
- offers an **interdisciplinary teaching program** based on an the observation of the Earth and the universe in order to respond to major **contemporary challenges**.
- brings together students, lecturers, researchers and engineers from the **University of Toulouse's training programs and research laboratories**.
- provides the opportunity to observe the Earth and Space by taking advantage of the major scientific platforms of the **Observatoire Midi Pyrénées**.
- enables students to **broaden their horizons** by funding **internships** and **national and international mobility**.



Information



<https://tess.omp.eu>



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Coordinating team



**Scientific Director
Doctoral Program Coordinator**
Geneviève Soucail



**Associate Coordinator
for the Master's Program**
Stéphanie Duchêne



**Chair of the
TESS Council**
Yves Morel



**Administrative
manager**
Maria Peshkova