

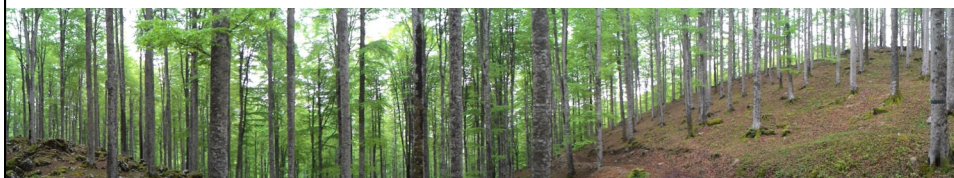


UNIVERSITÀ
DEGLI STUDI
DI PADOVA

TESAF

Forest Science

International Master Degree in Forestry @ Padova University



Italy is a forest-rich country

1950 = 5.5 M hectares
2000 = 10.4 M hectares
2010 = 11 M hectares

Forest: about 33% of total land area



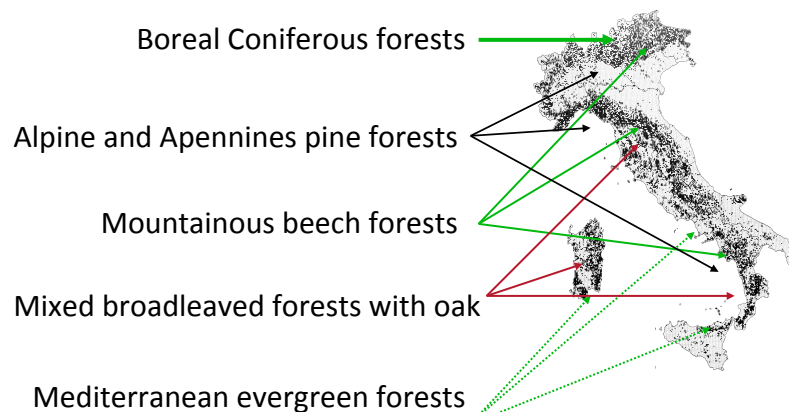
TESAF Dipartimento Territorio
e Sistemi Agro-Forestali



Italy is a forest-biodiverse country

More than 5,800 species (5,300 herbaceous sp, 500 tree sp)

Europe: 7,500 specie



TESAF Dipartimento Territorio
e Sistemi Agro-Forestali



Forest Science Master Degree

Mission

forming high-profile graduates with a holistic, innovative and international vision on management and conservation of forest and natural resources, with a focus on ***Alpine and Mediterranean*** mountains

TESAF Dipartimento Territorio
e Sistemi Agro-Forestali



Forest Science Master Degree

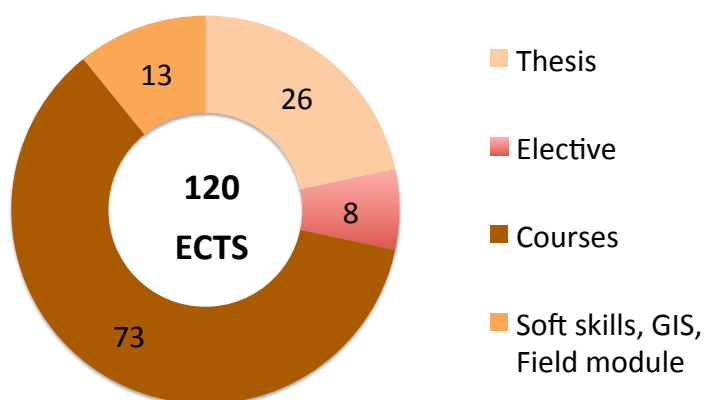
Admission requirements

Bachelor graduates with forestry, agriculture, environmental or biological backgrounds

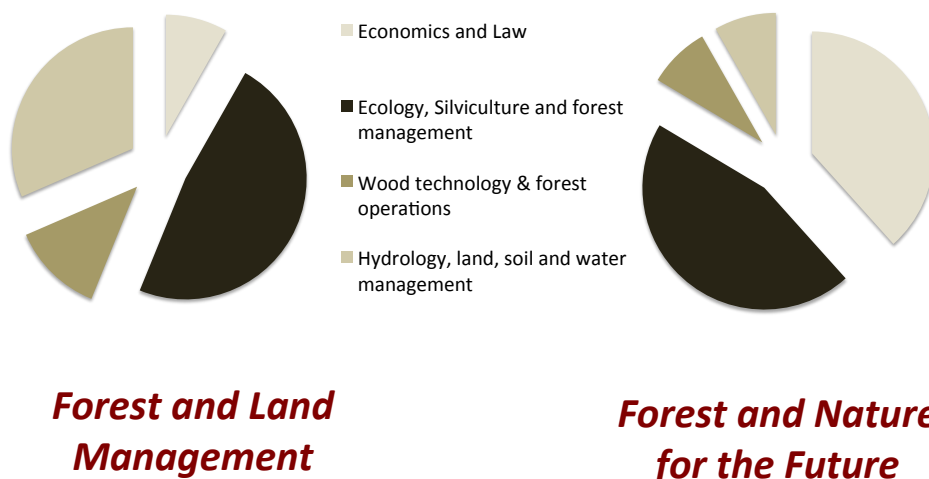
adequate knowledge in agricultural and forest sciences, specifically in ecological, silvicultural, economic and technical areas - skills in disciplinary survey methods and in using the results of research and experimentation for the professional solution of concrete issues in the forest sector

Forest Science Master Degree

- 2-years



Two specialisation paths



TESAF Dipartimento Territorio e Sistemi Agro-Forestali



1 – Forest and Land Management

a technical profile in management, conservation and integrated valorisation of forests and natural resources characterized by an interdisciplinary approach. Students acquire awareness and understanding of the organization of forest ecosystems and skills for sustainable management of forests, with a special focus on typical disturbances of mountainous alpine and Mediterranean environments.

| First year, first semester | |
|---|------|
| Courses | ECTS |
| Forest policy for a bio-economy strategy | 6 |
| Forest ecology and management | 11 |
| Natural Disturbances ecology and management | 6 |
| Communication skills | 2 |

| First year, second semester | |
|---------------------------------------|------|
| Courses | ECTS |
| Insect ecology and management | 6 |
| Wildlife conservation and management | 6 |
| Forest pathology and wood alterations | 6 |
| Geology of Mountain Areas | 6 |
| Introduction to GIS | 2 |
| Joint Field Module | 4 |

| Second year, first semester | |
|---|------|
| Courses | ECTS |
| Forest transportation | 9 |
| Forest hydrology and erosion control | 11 |
| Mountain River Morphology and Restoration | 6 |
| Research planning | 3 |
| Guidelines to develop your master thesis | 2 |

| | |
|-------------------------|----------|
| Elective Courses | 8 |
|-------------------------|----------|

| | |
|----------------------|-----------|
| Master thesis | 26 |
|----------------------|-----------|

| | |
|--------------|------------|
| TOTAL | 120 |
|--------------|------------|

TESAF Dipartimento Territorio e Sistemi Agro-Forestali



2 – Forest and Nature for the future

a technical-economical profile in governance of forests and natural ecosystems in the context of international issues such as climate change, deforestation, land use change and biodiversity conservation . Students acquire capacity to interpret complex socio-ecological systems and to identify innovative solutions for responsible forest management in line with the major global environmental issues.

| First year, first semester | |
|--|------|
| Courses | ECTS |
| Stand history and dynamics | 6 |
| Applied Silviculture and Forest Management | 8 |
| Reduced Impact Timber Harvesting | 6 |
| Communication skills | 2 |

| First year, second semester | |
|---|------|
| Courses | ECTS |
| Global change and forest ecosystems | 7 |
| Natura 2000 management | 6 |
| Biodiversity and Ecosystem Services in Forest | 6 |
| Integrated watershed management | 6 |
| Introduction to GIS | 2 |
| Joint Field Module | 4 |

| Second year, first semester | |
|---|------|
| Courses | ECTS |
| Forest policy, governance & conflicts: from global to local | 8 |
| Environmental resource valuation | 6 |
| Market-based instruments for Ecosystem Services | 6 |
| Social responsibility and certification | 8 |
| Research planning | 3 |
| Guidelines to develop your master thesis | 2 |

| | |
|------------------|---|
| Elective Courses | 8 |
|------------------|---|

| | |
|---------------|----|
| Master thesis | 26 |
|---------------|----|

| | |
|--------------|------------|
| TOTAL | 120 |
|--------------|------------|

TESAF Dipartimento Territorio
e Sistemi Agro-Forestali



UNIVERSITÀ
DEGLI STUDI
DI PADOVA

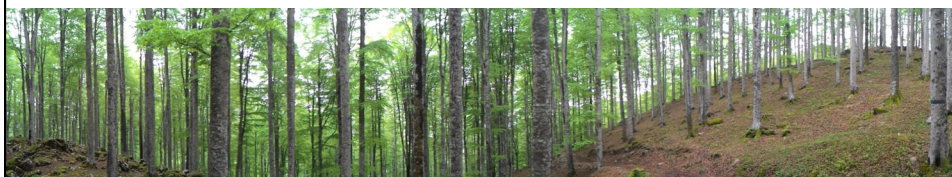
Elective courses 2018-2019


Class

- **Special Topics in Forestry: Dynamic hydrology: water prediction and management in a changing world (6 ECTS)**


E-learning :

- **Climate change and forestry: monitoring and policies (6 ECTS)**
- **Ecosystem Services Entrepreneurship: from ideas to business (6 ECTS)**





UNIVERSITÀ
DEGLI STUDI
DI PADOVA



Thesis Work

26 ECTS

Soft Skills: support for thesis preparation and communication

Guidelines to develop your master thesis (2 ECTS)

how to deal with the steps of a thesis development process: from the design to the finalization and communication of results

Communication skills (2 ECTS)

skills which can compensate for limited linguistic competence, like fluency, intonation, pronunciation, body language and eye-contact, on raising self-awareness and confidence, and boosts the ability to interact and communicate in academic environments

Research planning (3 ECTS)

research planning techniques and competences on how to design a quantitative and a qualitative survey.



Joint field Module in Denmark and Sweden – summer 2016

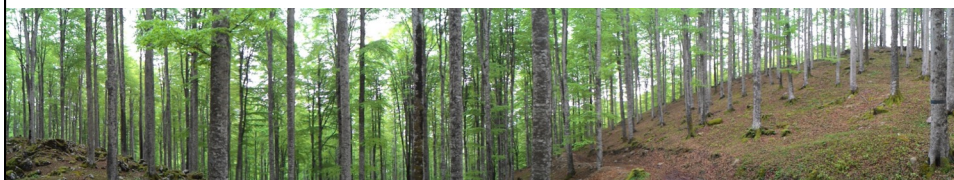




Students' satisfaction







| | 2014-2015 | 2015-2016 | 2016-2017 |
|--------------------------|-----------|-----------|-----------|
| Overall satisfaction | 8,47 | 8,64 | 8,86 |
| Organisational aspects | 8,70 | 8,89 | 9,00 |
| Didactical effectiveness | 8,65 | 8,86 | 9,05 |

On a 0-10 scale, where 6 is 'pass'








Forest Science's professors







Hydrology and watershed management

 Marco Borgia
 Paolo Tarolli
 Vincenzo D'Agostino
 Omar Bartoli
 Francesco Pirotti
 Raffaele Cavalli






Communication skills

 Caroline Clark
 Mara Thiene
 Mauro Masiero
 Emanuele Lingua
 Mario Pividori



Economics, policy and governance

 Paola Gatto
 Davide Pettenella
 Laura Secco
 Riccardo Da Re
 Tommaso Sitzia
 Marco Carrer

Biodiversity, management of disturbances and of wildlife

 Lorenzo Picco
 Andrea Battisti
 Lorenzo Marini
 Lucio Montecchio
 Maurizio Ramanzin

Forest operations and GIS

 Stefano Grigolato
 Maurizio Ramanzin

Ecology and silviculture

Forest Science's Guest Professors 2016-2019



**Forest Ecology and
management in
mediterranean climates**

Mark Adams, University of
Sydney



**Policy and market development
for Non wood forest products**

Paul Vantomme, FAO and KU
Leuven



**Dynamic hydrology: water
prediction and
management in a changing
world**

Maria Helena Ramos
IRSTEA, France



Social Forestry

Anna Lawrence
Scottish School of Forestry,
University of the Highlands
and Islands, Scotland, UK

TESAF Dipartimento Territorio
e Sistemi Agro-Forestali



Field activities





Field activities

TESAF Dipartimento Territorio
e Sistemi Agro-Forestali



UNIVERSITÀ
DEGLI STUDI
DI PADOVA



Field activities

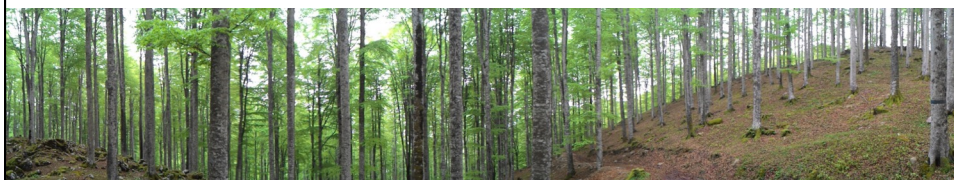


UNIVERSITÀ
DEGLI STUDI
DI PADOVA



Opportunities for internships in Italy and abroad

- FAO (Rome – Italy)
- CIFOR (Centre for International Forestry Research)
- EFI FLEGT and REDD Units at EFIMED (Bcl)
- USSE - *USSE.Unión de silvicultores del Sur de Europa*
- Bioversity International (former IPGRI - Rome)
- Forest Stewardship Council Int. (Bonn) and FSC-Italy (Padova)
- UN-ECE Timber Committee (Geneva)
- WWF Mediterranean Program (Rome)
- Forest consultant companies (Indufor, Etifor, ...) and NGOs



Double degree programmes

Forest Sciences participates to 3 Erasmus Mundus International programmes:

- **MEDfOR** *Mediterranean Forestry and Natural Resources Management*, from 2012-2013
Partner Universities: Viterbo (Italy), Lisbon and Porto (Portugal), Lleida and Valladolid (Spain), Karadeniz (Turkey)
- **SUTROFOR**: *Sustainable Tropical Forestry* from 2006-2007
Partner Universities: Copenhagen (Denmark), Dresden (Germany), Bangor (UK), Montpellier (France)
- **SUFONAMA**: *Sustainable Forests and Nature Management*, from 2007-2008
Partner Universities: Copenhagen (Denmark), Goettingen (Germany), Bangor (UK), Alnarp (Sweden)

