



## Master's Degree Study Programme

# Tropical Forestry and Agroforestry (TFA)

Tropical Forestry and Agroforestry (TFA) is a two-year Master's study programme taught in English. The study programme is based on the interdisciplinary approach in order to deepen theoretical knowledge and practical skills related to forestry and rural development in Third world countries. Students are prepared for professional forestry and wood processing activity in the countries of the tropical and subtropical zones. Great emphasis is also placed on related agriculture and rural development in these countries. The programme consists of the courses addressing forest management, silviculture, water management and forest conservation. A special emphasis is put on the study of small-holder farming systems in tropics that often encompasses both agriculture and forestry (agroforestry). Crucial part of the programme represents methodological issues for basic and applied research concerning forestry and rural development, targeting relevant problems and questions, assessment of all aspects in formulated task, design of studies in order to answer the task question, analysis, results interpretation and final application or synthesis. Very important part of courses represents Scientific Seminar during which gives to students opportunity to present their own work and improve their communication skills dealing with their diploma thesis. Faculty provides many opportunities to gain hands-on experience and practical skills through its projects around the world. Students are highly encouraged to develop their master's thesis in conjunction with one of these development projects or with a local institution, such as a university's Arboretum in Kostelec nad C.I. The studies are terminated by State exam and defence of the Master's thesis. Students graduate with the title „Inženýr“ - Ing.

### Examples of Master's theses:

- Morphological and genetic diversity of selected agroforestry tree species
- Impact of agroforestry systems on biodiversity conservation
- Vegetative propagation of selected tropical tree species
- In vitro micropropagation of selected tropical tree species
- Tree diversity in cocoa agroforestry



# Indicative study plans

## Obligatory courses

- ✓ Agroforestry (Sistemas Agroforestales) \*
- ✓ Tropical Dendrology
- ✓ Agroforestry Systems
- ✓ Forest Management in TS
- ✓ GIS I.
- ✓ Economic Botany
- ✓ Forest Ecology
- ✓ Silviculture in TS
- ✓ Research Training and Internship
- ✓ Forest Protection in TS
- ✓ Water Resource Management

*Courses are supplemented by preparation of Master's theses. \* Course can be also studied in Spanish*

The **Research Training and Internship** emphasizes the development of their methodological research or management skills gain in the field (data collection) or laboratory practice focused on the research of tropical bioresources at scientific, educational or even private institutions in the Czech Republic or abroad.

## Required optional courses

- ✓ Tropical Crop Production
- ✓ Special Crops
- ✓ Tropical Phytocoenoses
- ✓ Animal Husbandry in Tropics
- ✓ Molecular Ecology
- ✓ Processing and Interpretation of Biological Data
- ✓ Genetics and Forest Tree Breeding
- ✓ Wood Science
- ✓ Irrigation and Drainage
- ✓ Biodiversity
- ✓ Fruit Production
- ✓ Classification of Vegetation
- ✓ Ecosystem Conservation and Management
- ✓ Soil Science (Forestry)

*Students select at least 4 courses from this group.*

## Optional courses

- ✓ Plant Breeding and Genetic Resource Conservation
- ✓ Protected Areas Management
- ✓ Economics of Farming Systems
- ✓ Special Forest Plantations
- ✓ Forest Inventory
- ✓ Forest Economy
- ✓ Harvesting, Timber Transport and Wood Processing
- ✓ Remote Sensing
- ✓ Conservation Genetics
- ✓ Environmental Soil Science
- ✓ Summer Sport Event
- ✓ Winter Sport Event
- ✓ Management of (sub-) Tropical Land-Use Systems
- ✓ Plant Tissue Culture
- ✓ Organic Waste Management
- ✓ Population Genetics
- ✓ Applied Dendrology
- ✓ Surveying
- ✓ Soil and Plant Relationship
- ✓ GIS II.

Students can select also other courses which are taught in English from the actual offer of the Czech University of Life Science Prague or courses can be passed at foreign universities as part of Erasmus+ exchange programs.

## State exam

State exam consists of Master's thesis defence and examinations from 2 obligatory and 1 optional topics.

### Obligatory topics:

- Forest Management and Silviculture
- Agroforestry Systems in the Tropics

### Optional topics:

- Water and Soil Protection and Management
- Tropical Crop Management in Agroforestry
- Forest Genetics and Tree Breeding
- Forest Ecosystem Conservation

**Detailed study plans are available in the University Information System (UIS) – [is.czu.cz](http://is.czu.cz)**