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UNIVERSIDADE FEDERAL DE LAVRAS

# GRADUATE PROGRAMS

The first Graduate Programs of the Federal University of Lavras started their activities in the decade of 1970 (Crop Science, Administration, Food Science and Animal Science), demonstrating the tradition in teaching and researching at the Graduate level. At the current moment, UFLA has 42 graduate programs, being them distributed in the following fields of knowledge:

**Agricultural Sciences**

- Graduate Program in Animal Science
- Graduate Program in Medicinal, Aromatic and Seasoning Plants
- Graduate Program in Agricultural Microbiology
- Graduate Program in Plant Science
- Graduate Program in Soil Science
- Graduate Program in Food Science
- Graduate Program in Wood Science and Technology
- Graduate Program in Veterinary Sciences
- Graduate Program in Entomology
- Graduate Program in Plant Pathology
- Graduate Program in Agrochemistry
- Graduate Program in Genetics and Plant Breeding

**Biological Sciences**

- Graduate Program in Plant Biotechnology
- Graduate Program in Applied Botany
- Graduate Program in Applied Ecology
- Graduate Program in Plant Physiology

**Engineering**

- Graduate Program in Water Resources
- Graduate Program in Agricultural Engineering
- Graduate Program in Environmental Engineering
- Graduate Program in Biomaterials Engineering
- Graduate Program in Systems and Automation Engineering
- Graduate Program in Forest Engineering
- Graduate program in Chemical and Materials Engineering

**Health Sciences**

- Graduate Program in Health Sciences

**Exact and Earth Sciences**

- Graduate Program in Computer Science

**Linguistics, Letters, and Arts**

- Graduate Program in Linguistics

## Graduate Program in Animal Science

Carla Luiza da Silva Ávila
Email for contact: carlaavila@ufla.br

### Brief description of Program

The Animal Science Graduate Program (PPGZ) offers Master's and Doctoral courses in the field of Production and Nutrition of Non-Ruminants and Ruminants. The objective of the PPGZ is to educate professionals with solid theoretical and practical knowledge to work on solving general and specific problems in livestock and other animal husbandry within Brazil, with a vision for technological innovation and entrepreneurship.

### Brief description of the program's lines of research

PPGZ has the following lines of research in the area of ruminants and non--ruminants: nutritional, physiological and metabolic aspects in the production and reproduction; evaluation of additives; molecular biology applied to nutrition and genetic improvement; determination of nutritional requirements and food evaluation; production factors that influence meat quality and the lines breeding, nutrition, and reproduction in freshwater fish and assessment, production and fodder conservation.

### Describe which Chinese University has the area/line of research or topics of interest to the Program and, if possible, the contact of the Chinese researcher.

-Hongyun Liu, Jianxin Liu – Zhejiang University
- Hao Wu, Liping Ren, Qingxiang Meng – China Agricultural University
- Q. Liu, Shanxi, Yawei Zhang – Shanxi Agricultural University
- Jianguo Li, Yanxia Gao – Hebei Agricultural University
- Yonggen Zhang – Northeast Agricultural University
- Mingren Qu – Jiangxi Agricultural University
- Huazhong Agricultural University (HZAU) - Zexia Gao

## Graduate Program in Medicinal, Aromatic and Seasoning Plants

Luciane Vilela Resende
Email for contact: luciane.vilela@ufla.br

### Brief description of Program

The Graduate Program in Medicinal, Aromatic and Seasoning Plants, aims at the training and qualification of human resources at master's and doctoral level in line with the National Policy on Medicinal Plants and (PNPMF).

### Brief description of the program's lines of research

The programme has two lines of research: 1) Cultivation and Sustainable Management of Medicinal Plants, and 2) Bioactivity of Medicinal Plants. The lines cover a diverse set of research projects involving chemical and genetic variability of medicinal species, production of secondary metabolites in vitro and chemical-biological evaluation of medicinal plants of pharmacological and phytosanitary interest, in vitro and in vivo animal models.

### Describe which Chinese University has the area/line of research or topics of interest to the Program and, if possible, the contact of the Chinese researcher.

Zhejiang Agricultural and Forestry University;

- Zhejiang University of Traditional Chinese Medicine;
- Hebei Medical University

## Graduate Progam in Agricultural Microbiology

Dr. Victor Satler Pylro
victor.pylro@ufla.br

### Brief description of Program

The Graduate Program in Agricultural Microbiology prepares graduates to work in applied microbiology fields, offering scholarships, and research opportunities. The program focuses on agroindustry, environmental and industrial microbiology, and it has achieved a rating of 6 in the CAPES evaluation, showcasing its international quality.

### Brief description of the program's lines of research

PPGMA focuses on three research areas:

- Ecology, genetics, and physiology of microorganisms in diverse environments.

- Biotechnology of microorganisms for sustainable agriculture and ecosystem recovery.

- Food quality and microbiological safety assessment throughout production and processing, including risk analysis.

### Describe which Chinese University has the area/line of research or topics of interest to the Program and, if possible, the contact of the Chinese researcher.

- Yuji Jiang and Bo Sun: State Key Laboratory of Soil and Sustainable Agriculture, Institute of Soil Science, Chinese Academy of Sciences, Nanjing 210008, China and Ecological Experimental Station of Red Soil, Chinese Academy of Sciences, Yingtan 335211, China

- College of biotechnology: https://sky.zafu.edu.cn/: Dr. Haiping Lin.

- College of food and health: https://spjk.zafu.edu.cn/. Within this department, two interesting researchers are: Dr. Juan Xu - https://spjk.zafu.edu.cn/info/1198/1090.htm and - Dr. Jian Guo - https://spjk.zafu.edu.cn/info/1193/3213.htm

Microbiology building

Microbial Ecology and Bioinformatics Laboratory

Culture Collection Unit


Electron Microscopy

Laboratory of Fermentation

**Graduate Program in Plant Science**
Adriano Teodoro Bruzi
adrianobruzi@ufla.br

**Brief description of Program**

Graduate Program in Plant Science

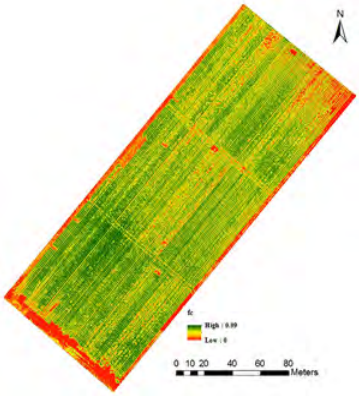
**Brief description of the program's lines of research**

Major crops management and production
Horticultural plants management and production
Seed production and technology

Seed Science and Technology

Tissue Culture

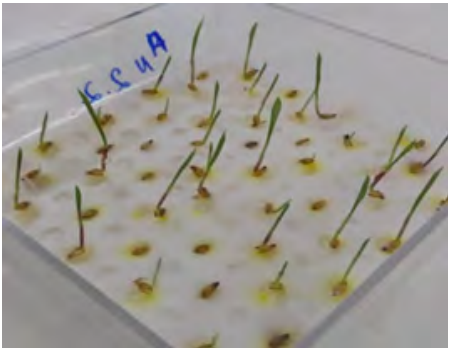
Medicinal Plants: processing and prospection




Vegetables Classification and Evaluation

Coffee Science: Sample Classification, Drying and Quality Analysis

Multiuse Laboratory (Soil; Plant; Image)



Research/Extension Farms

**Graduate Program in Soil Science (PPGCS/UFLA)**
Coordinator: Prof. Dr. Bruno Montoani Silva
Email pg.esal@ufla.br

**Brief description of Program**

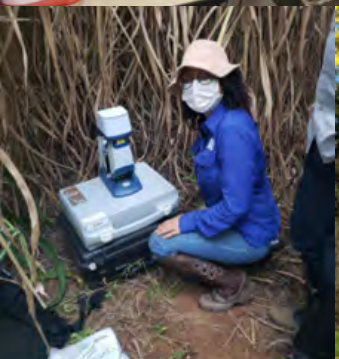
Our program offers scientific training and integrated courses in soil science. Faculty members are actively engaged in research, ensuring that the content remains current and relevant. The internationalization efforts provides students with opportunities to interact with renowned research groups worldwide.

**Brief description of the program's lines of research**

Soil amendments, fertilizers, and waste utilization; Nutrient dynamics and availability in the soil-plant system; Plant nutrition, metabolism, and nutritional diagnosis; Carbon in the soil-plant system; Agronomic biofortification of food. Soil biodiversity, biochemical and biophysical processes. Soil chemistry, mineralogy and pollution; Soil and water management and conservation; Soil physics; Digital soil mapping

**Describe which Chinese University has the area/line of research or topics of interest to the Program and, if possible, the contact of the Chinese researcher.**

Shanghai University, Agricultural and Forestry University of Zhejiang, Hebei Normal University (Shijiazhuang), Beijing Normal University.



**Food Science Graduate Program**

Coordinator Jefferson Luiz Gomes Corrêa
jefferson@ufla.br

**Brief description of Program**

PPGCA was created in 1976, and it has produced more than 560 Dissertations and 300 Thesis. It is an Excellence Academic Program (PROEX-CAPES, Grade 6). The staff is composed by 20 professors (17 permanents and 4 collaborators).

**Brief description of the program's lines of research**

The PPGCA involves the several areas in food science as known: 1-Products from animals: science and Technology, 2- Products from vegetables: science and Technology, 3- Food Microbiology and fermentative processes, 4- New products developments, sensorial analysis and packaging and 5- Processes engineering

**Describe which Chinese University has the area/line of research or topics of interest to the Program and, if possible, the contact of the Chinese researcher.**

Chinese Academy of Agricultural Sciences, Beijing, China

Bi, Jin Feng https://orcid.org/0000-0001-8664-8788

Ministry of Agriculture of the People's Republic of China, Beijing, China

Li, Xia

Zhejiang Agriculture and Forestry University 1. College of biotechnology: https://sky.zafu.edu.cn/ Dr. Haiping Lin. 2. College of food and health: https://spjk.zafu.edu.cn Within this department, two interesting researchers are: Dr. Juan Xu - https://spjk.zafu.edu.cn/info/1198/1090.htm Her research aims at the study of lactic acid bacteria and probiotics, but its main focus is on edible fungi.

Dr. Jian Guo - https://spjk.zafu.edu.cn/info/1193/3213.htm

His research aims at the decontamination of molds and mycotoxins in rice grains.

## Graduate Program in Wood Science and Technology

Paulo Ricardo Gherardi Hein
Paulo.hein@ufla.br

### Brief description of Program

The Graduate Program in Wood Science and Technology (PPGCTM) proposed to work in the training of professionals qualified to face the contemporary challenges for the rational use of wood and in the development of solutions for the industrial applications.

### Brief description of the program's lines of research

The PPGCTM focus on the characterization and understanding of the behavior of the material and its performance in industrial applications, in addition to promoting research, development and innovation in wood sciences, with ethics and commitment. Its research activities include Use of biomass and solid wastes, characterization of wood and its products, developing of new nanostructured materials and energy production.

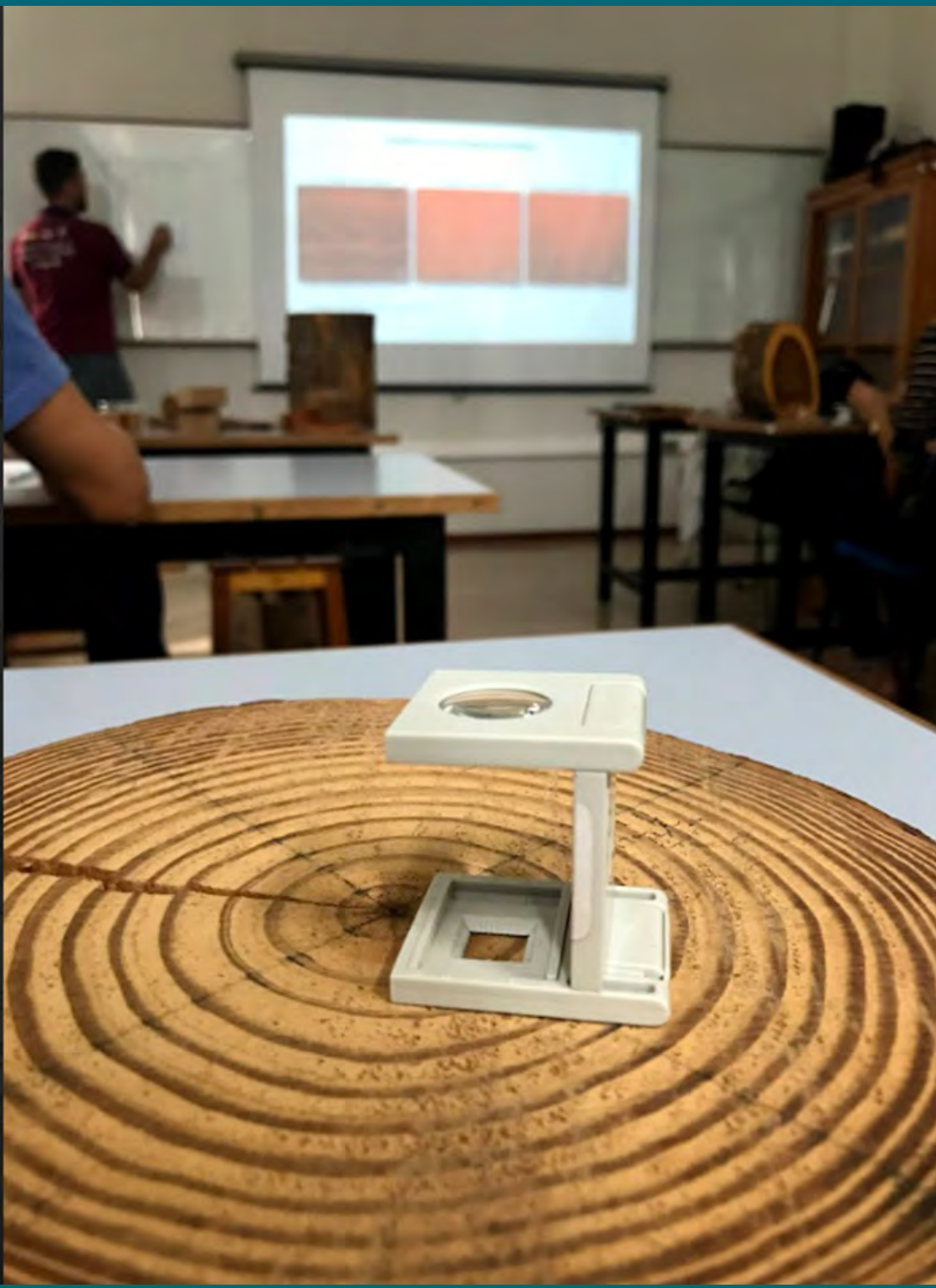
### Describe which Chinese University has the area/line of research or topics of interest to the Program and, if possible, the contact of the Chinese researcher.

Chinese Academy of Forestry

Research Institute of Subtropical Forestry

Hangzhou, China

Contact: Honggang Sun (honggangsun@caf.ac.cn)



## Graduate Program in Veterinary Sciences

Sérgio Scherrer Thomasi
Sergio.thomasi@ufla.br

### Brief description of Program

UFLA's Graduate Program in Veterinary Sciences focuses on the following areas of research: Clinic, surgery and veterinary pathology; Animal physiology and metabolism; Animal production and reproduction and Animal health and collective health.

### Brief description of the program's lines of research

The main lines of research of the program are the following: Imaging diagnosis and medicine for domestic, exotic and wild animals; Pathology of the main animal diseases; Physiology and metabolism in different species of freshwater fish; Birds incubation management; Nanotechnology and pharmacokinetics based on physiological and pathophysiological mechanisms; Use of animal models for studies of toxicity and disease mechanism (Zebrafish, rats and mice); Biotechnology, physiology and nutrition applied to animal reproduction; Management of cattle production systems; Nutrition, metabolism and well-being of cattle; Quality of products of animal origin in production systems; Epidemiology and unique health applied to disease control and health promotion; Immunoparasitology and nanotechnology applied to immunology; Mastitis and bacterial resistance to antimicrobials and Parasite-host relationship and tick control.

## Graduate Program in Entomology

Rosangela Cristina Marucci
rosangelac.marucci@ufla.br

### Brief description of Program

The PPGEN focuses on the training of MSc and PhD with technical, scientific, and humanistic excellence, as in to be protagonists in the development of sustainable and innovative agriculture, committed to ethics and to socioeconomic, environmental and technological demands of Brazil.

### Brief description of the program's lines of research

Development of chemical, botanical, macro and microbiological insecticides to control pests in agricultural and forestry crops. Toxicological evaluation (mortality and side effects), selectivity for bees and natural enemies, and insecticide resistance management. Development of Biological Control Programs and research with potential natural enemies of pests and their maintenance in the environment. Studies with trophic interactions between plants, pests, natural enemies and pathogens.

### Describe which Chinese University has the area/line of research or topics of interest to the Program and, if possible, the contact of the Chinese researcher.

Prof. Yalin Zhang

Key Laboratory of Plant Protection Resources & Pest Management of the Ministry of Education, College of Plant Protection, Northwest A&F University, Yangling 712100, Shaanxi, China.

Prof. Peng Han

Yunnan Key Laboratory of Plant Reproductive Adaptation and Evolutionary Ecology and Centre for Invasion Biology, Institute of Biodiversity, School of Ecology and Environmental Science, Yunnan University, Kunming, 650504, China

Prof. Shao-hua Gu

Department of Entomology, China Agricultural University, Beijing, 100193, China.

## Graduate Program in Plant Pathology

Antonia dos Reis Figueira
Email for contact: antonia@ufla.br

### Brief description of Program

The UFLA's Graduate Program in Plant Pathology has 14 permanent professors with expertise in Bacteriology, Mycology, Virology, Nematology and Biological Control of Plant Diseases. Since 1996, 347 master's dissertations and 178 doctoral theses have been defended on it.

### Brief description of the program's lines of research

The program focuses on conventional and molecular plant pathology, involving three main lines of research:

Diagnosis and diversity of beneficial and pathogenic microorganisms

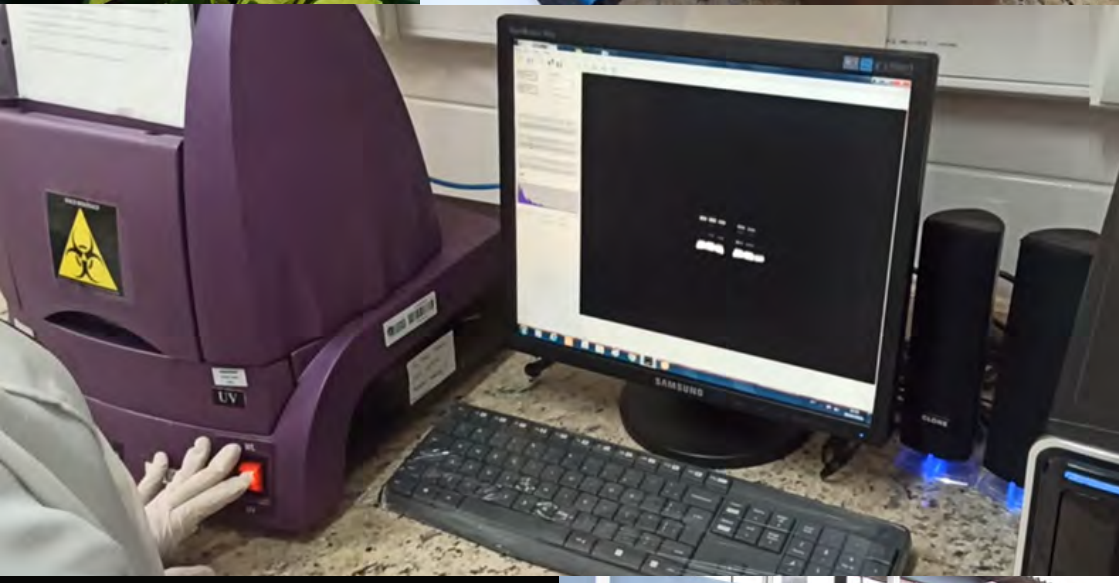
Epidemiology and management of Plant Diseases

Interactions of plants with beneficial and pathogenic microorganisms

### Describe which Chinese University has the area/line of research or topics of interest to the Program and, if possible, the contact of the Chinese researcher.

Our interest is in Chinese universities that work in Phytopathology. Three examples would be:

1. China Agricultural University - Beijing
2. Fujian Agriculture and Forestry University – Fujian
3. South China Agricultural University - Guangdong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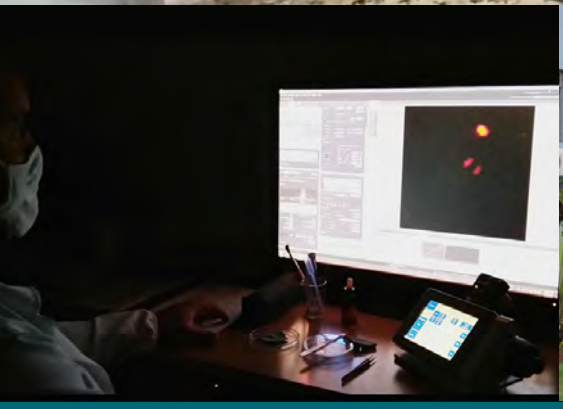



Departamento
Fitopatologia

## Agrochemistry Graduate Program

Sérgio Scherrer Thomasi
Sergio.thomasi@ufla.br

### Brief description of Program

The Agrochemistry Graduate Program (PPGAQ) was founded 25 years ago with specific goals. The PPGAQ has, primarily, the following objectives: to qualify high-level human resources to work in research, extension, management, and teaching in the areas of agricultural sciences and chemistry, and contribute to the development of innovation.

### Brief description of the program's lines of research

(i) Biochemistry, Cachaça Technology and Natural and Synthetic Products: evaluation, purification and identification of different biological activities of the active principles of plants; (ii) Environmental Chemistry applied to Agriculture: use/transformation of waste into materials of technological value,; (iii) Computational Chemistry applied in Agriculture: they will act in the application of modern chemistry allied to computational modeling, such as in the development of compounds of therapeutic and agrochemical interest (QSAR), molecular modeling of macromolecules, conformational analysis and computational catalysis.

### Describe which Chinese University has the area/line of research or topics of interest to the Program and, if possible, the contact of the Chinese researcher.

Professors in our program have already submitted this form filled out with information about professors and universities of interest. Some of them are: Zhejiang Agricultural and Forestry University and Beijing Normal University.

## UFLA's Graduate Program in Genetics and Plant Breeding

Coordinator: José Airton Rodrigues Nunes
Email: coordenacaogenetica.dbi@ufla.br

### Brief description of Program

UFLA's Graduate Program in Genetics and Plant Breeding (PPGGM) was created in 1986. PPGGM has always focused on training plant breeders and geneticists to work on Public and Private Companies as well as Universities.

### Brief description of the program's lines of research

PLANT CYTOGENETICS - Study of the structural and functional aspects of chromatin and mitotic and meiotic chromosomes of cultivated and native species.

GENOMICS AND MOLECULAR GENETICS OF PLANTS AND PHYTOPATHOGENS - Use of genomic tools to improve annual and perennial plants and to evaluate their genetic diversity, as well as to study phytopathogens.

PLANT BREEDING, QUANTITATIVE GENETICS AND BIOMETRY - Use of biometric methods in cultivated, annual and perennial plants to obtain estimates of genetic and phenotypic parameters that help breeders in decision-making in breeding programs.

### Describe which Chinese University has the area/line of research or topics of interest to the Program and, if possible, the contact of the Chinese researcher.

We are interested in collaborating with groups of plant biology that develop and integrate knowledge in Genomics, Cytogenomics and Epigenetics applied to crop breeding. A potential collaborator is Dr. Wenli Zhang, College of Agronomy, Nanjing Agriculture University, Nanjin.

**Program: Plant Biotechnology**

Kalynka Gabriella do Livamento
kalynkalivramento@ufla.br

**Brief description of Program**

The Graduate Program in Plant Biotechnology at the Federal University of Lavras aims to train professionals capable of using the tools, principles, and concepts of modern biotechnology to generate new products and biological processes in the agricultural/environmental and microbiological fields.

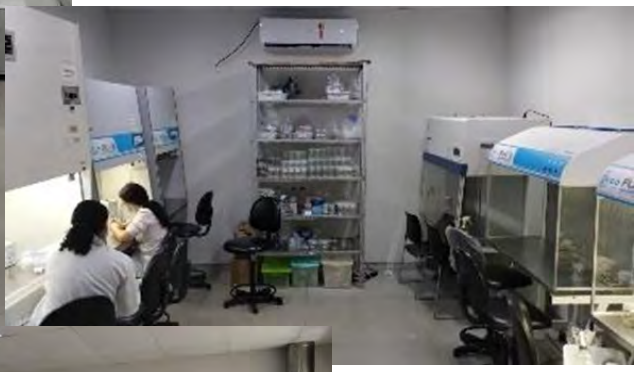
**Brief description of the program's lines of research**

The Graduate Program in Plant Biotechnology encompasses three research lines with significant potential: 1) Genomic and Functional Analysis: This research line focuses on studying the genomes of plants to understand their structure, organization, and function. 2) Genetic Transformation and Cloning: This research line involves the manipulation of plant genomes to introduce desired traits or modify existing ones. Molecular 3)Biology of Plant-Microorganism and Insect Interactions: This research line investigates the complex interactions between plants, microorganisms, and insects.

**Describe which Chinese University has the area/line of research or topics of interest to the Program and, if possible, the contact of the Chinese researcher.**

Shanghai University

Zheijang Agricultural and Forestry University



## Graduate Program in Applied Botany

Marinês Ferreira Pires Lira
Email for contact pg.icn@ufla.br

### Brief description of Program

The Graduate Program is designed to advance the exploration of plant species' potential and their products, as well as to enhance plant production and educate highly skilled master's and doctoral professionals. Its focus lies in utilizing scientific knowledge to optimize various human activities while adhering to the principles of sustainable management in natural and agricultural systems.

### Brief description of the program's lines of research

The Program consists of two research lines:

"Plant Structure and Function," which focuses on conducting research and applying knowledge related to plant structure and its correlation with plant production, reproduction, adaptation to different environments, restoration of degraded areas, and exploration of natural products.

"Plant Biosystematics," which involves floristic and systematic studies on plant taxa found in Brazilian biomes. This research line facilitates the identification, description, and collection of phenological and phytogeographic data. These studies support systematic and evolutionary projects, as well as contribute to the understanding and implementation of policies related to the conservation and management of Brazilian flora species.

### Describe which Chinese University has the area/line of research or topics of interest to the Program and, if possible, the contact of the Chinese researcher.

- College of Life Sciences, Nankai University, Department of Plant Biology and Ecology. It is made up of the Lab of Plant Molecular Biology, the Lab of Physiological Ecology, the Lab of Resource Botany and the Lab of Structural Botany.

- College of Life Sciences, South China Agricultural University, Department of Plant Sciences. The college owns various scientific research platforms, including the Guangdong Provincial Veterinary Herbal Medicine and Nature Pharmaceutical Engineering Technology Research Center, the Key Laboratory of Plant Functional Genes and Biotechnology. The college has three teaching centers, which are the National Experimental Teaching Center of Plant Biology, the Experimental Teaching Center of Modern Biotechnology in the Department of Education of Guangdong Province, and School-Level Experimental Teaching Center for undergraduate students.

- School of Life Sciences, Shandong University. The School of Life Science includes the Key Laboratory of Plant development and environmental adaptation of the Ministry of Education, the Shandong Vegetation Ecological Engineering Technology Research Center, the Biology doctoral degree authorization of Environmental Engineering and Ecology, and the Biology postdoctoral research station.

## Graduate Program in Applied Ecology

Rafael Dudequi Zenni
Email : rafael.zenni@ufla.br

### Brief description of Program

The Graduate Program in Applied Ecology aims at training professionals with solid knowledge in ecology and conservation. Professionals who are able to identify, diagnose and propose mitigating and sustainable solutions to anthropogenic impacts on natural biota.

### Brief description of the program's lines of research

ECOLOGY AND CONSERVATION OF RESOURCES IN FRAGMENTED LANDSCAPES AND AGROSSYSTEM deals with monitoring changes in the physical and biotic environment arising from anthropic actions, such as the implementation of agricultural, industrial and urban enterprises in general.

ECOLOGY AND RESOURCES CONSERVATION IN FRAGMENTED LANDSCAPES AND AGROSYSTEMS addresses the development of the survey of plant and animal biodiversity in terrestrial and aquatic systems.

## Graduate Program in Plant Physiology

Paulo Eduardo Ribeiro Marchiori
paulo.marchiori@ufla.br

### Brief description of Program

1 - generation and dissemination of knowledge in Plant Physiology through high level teaching activities, development of cutting-edge research and the communication of findings;

2 - to foster technological innovation aimed at regional and national development in the area of plant physiology , encompassing areas of economic, social, and environmental interest;

3 - qualification of professionals to teach Plant Physiology as an essential basic discipline at any level of citizen and professional development.

*Master's course totally in English for foreign students.

### Brief description of the program's lines of research

1- Plant biochemistry, nutrition and metabolism: aims to better understand how environmental conditions affect plant physiology.

2- Plant growth and development physiology: studies how stimuli of the physical or biotic environment regulate plant physiology.

3 - Applied plant physiology: employs current technological advances in the physiology of agricultural production and for the recovery of areas of natural vegetation.

4 - Macrophysiology: physiological approaches on large spatial and temporal scales, particularly in the face of environmental variations or anthropic actions.

### Describe which Chinese University has the area/line of research or topics of interest to the Program and, if possible, the contact of the Chinese researcher.

-College of Life Science, Sichuan Agricultural University. Prof. Yang-Er Chen, Associate Professor. E-mail: anty9826@163.com

-Institute of Botany, Chinese Academy of Sciences, Beijing, 100093, China, Prof. Ting-Yun Kuang. E-mail: kuangty@ns.ibcas.ac.cn.

-State Key Laboratory of Resources and Environmental Information System, Chinese Academy of Science, Beijing 100101, China. Prof. Anzhou Zhao, E-mail: zhaoanzhou@126.com

## Graduate Program in Water Resources

Adriano Valentim Diotto
adriano.diotto@ufla.br

### Brief description of Program

The research's central theme is the different interactions between water and agricultural production systems, such as irrigation engineering, crop management under irrigation, hydrology, soil and water conservation, and water quality.

### Brief description of the program's lines of research

The Irrigation and Drainage research line aims to study irrigation projects and management, surface and underground water monitoring, crops water and energy use, and hydraulics of irrigation systems. The Hydrology research line aims to study hydrological processes in watersheds, qualitative and quantitative analysis, hydrological modeling, assessment of climate scenarios and land use, soil hydrology, and remote sensing applied to water resources.

### Describe which Chinese University has the area/line of research or topics of interest to the Program and, if possible, the contact information of the Chinese researcher.

Zhejiang Agricultural and Forestry University

The hydrology forest laboratory

Center pivot field Irrigation evaluation

Water quality laboratory

Irrigation laboratory

Greenhouse production experiment

## Graduate Program in Agricultural Engineering

Fábio Lúcio Santos, Coordinator of the Program
fabio.santos@ufla.br

### Brief description of Program

The Graduate Program in Agricultural Engineering aims to train professionals to act as professors or researchers in the field of Agricultural Engineering and also to generate knowledge, technologies, new products and processes in agriculture and agroindustrial systems.

### Brief description of the program's lines of research

The Graduate Program in Agricultural Engineering, with the master's and doctorate courses, has the following research lines: Construction, Ambience and Waste Treatment; Instrumentation; Agricultural Machinery and Mechanization; Agricultural Product Processing; Remote Sensing and Geoprocessing.

### Description of the topics of interest to the Program

The Graduate Program in Agricultural Engineering, composed by students and teaching staff, presents interest in subjects related to all research lines described. In this context, it is possible to highlight some purposes and activities of the Program: training of professionals in related fields to act as a professor or researcher; to provide the improvement of knowledge to competently solve the issues related to Agricultural Engineering; to contribute to the development of environmentally compatible and innovative technological products and processes; to develop innovative educational processes that promote qualified human development and citizenship; to base scientific and pedagogical conduct on ethical and socially correct standards.

**Instrumentation Development Center Applied to Agriculture (CEDIA)**

**Mechanical Vibrations Laboratory**

**Agricultural Product Storage Laboratory**

## Graduate Program in Environmental Engineering

Master's Program in Environmental Engineering
Ronaldo Fia
ronaldofia@ufla.br

### Brief description of Program

The Federal University of Lavras has demonstrated outstanding commitment to environmental matters, being recognized for its management with a focus on sustainability. In line with this, the Master's Program in Environmental Engineering aims to educate professionals who share this vision.

### Brief description of the program's lines of research

Materials and Environment: materials and manufacturing processes that are both efficient and environmentally friendly; Climate Change, Energy and Atmospheric Pollution: to evaluate atmospheric processes and energy; and Sanitation and Environmental Geotechnics: treatment of water, treatment/utilization of wastewater and solid waste, evaluation of slope stability and recovery of degraded areas.

### Describe which Chinese University has the area/line of research or topics of interest to the Program and, if possible, the contact of the Chinese researcher.

School of Environmental and Chemical Engineering / Shanghai University

College of Environment & Resources / Zhejiang A&F University

School of Environment / Beijing Normal University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## Graduation Program on Biomaterials Engineering

Dr. Gustavo Henrique Denzin Tonoli
Email: gustavotonoli@ufla.br

### Brief description of the Graduation Program

Graduation Program dedicated to the qualification of human resources in the formulation, processing, and characterization of materials derived from renewable sources, such as cellulose-based materials, functional additives and renewable polymers, and substances for different applications in materials science.

### Brief description of the program's lines of research

Lignocellulosic composites: research line dedicated to the formulation, processing, and characterization of composite materials for different applications, including papers, packaging, wood panels/composites, fiber-cement and wood panels/composites, etc. Bioproducts and Bioprocess: research line dedicated to the processing and characterization of bioproducts and bio substances obtained from different renewable sources for different applications and biosystems, including cellulose nanofiber production and applications, tannins, extractives, gums, emulsions, food applications, films, and other applications of interest.

### Describe which Chinese University has the area/line of research or topics of interest to the Program and, if possible, the contact of the Chinese researcher.

- Dr. Xin Feng fengxin@shu.edu.cn . Research Center of Nano Science and Technology, Shanghai University, Shanghai 200444, P. R. China. Fax: +86 21 66136038 Tel: +86 21 66137257

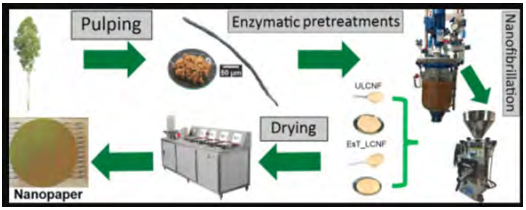
- Dr. Xing-Hong Zhang. Email: xhzhang@zju.edu.cn . MOE Key Laboratory of Macromolecular Synthesis and Functionalization, Department of Polymer Science and Engineering, Zhejiang University, Hangzhou, 310027 China

- Dr. Ping Zhang email: zhangpingzju@gmail.com . Ningbo Institute of Technology Zhejiang University, Ningbo, 315100 People's Republic of China

- Dr. Jun Lu. E-mail: junzoelu@zju.edu.cn ; Dr. Xinwen Peng fexwpeng@scut.edu.cn College of Chemical and Biological Engineering, Zhejiang University, Hangzhou, Zhejiang, 310027 China

- Dr. Hongzhi Liu. hzliu@iccas.ac.cn ; hongzhil@zafu.edu.cn School of Engineering, Zhejiang Agriculture & Forestry University, Lin'an, Hangzhou 31130, China. (Prof. Hongzhi Liu). Tel: +8-571-63746552.

- Dr. Shengchun Wu shengchunwu@126.com School of Engineering and §School of Environmental and Resource Sciences, Zhejiang Agriculture & Forestry University, No. 666 Wusu Street, Lin'an District, Hangzhou 311300, China



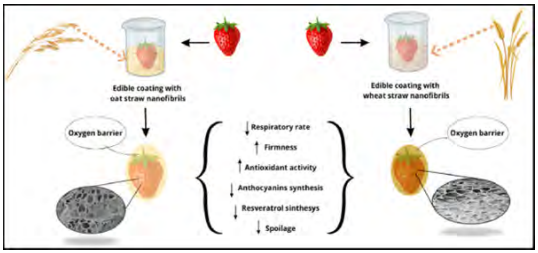
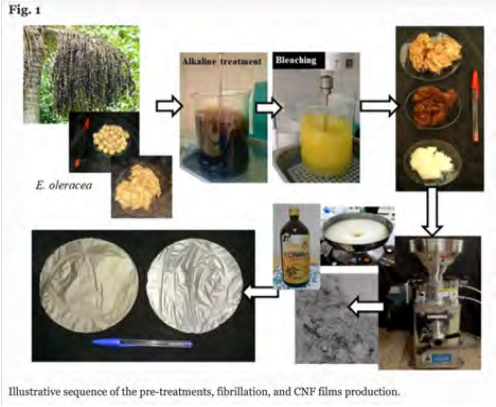




Fig. 1




Illustrative sequence of the pre-treatments, fibrillation, and CNF films production.

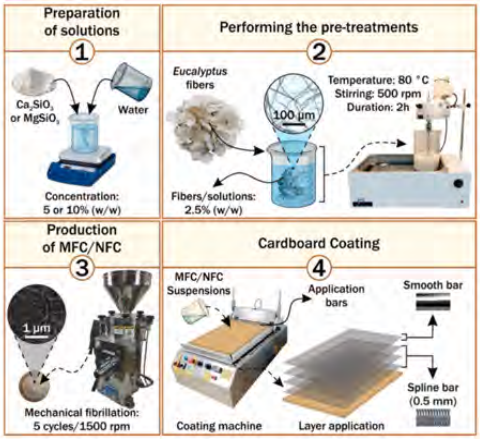
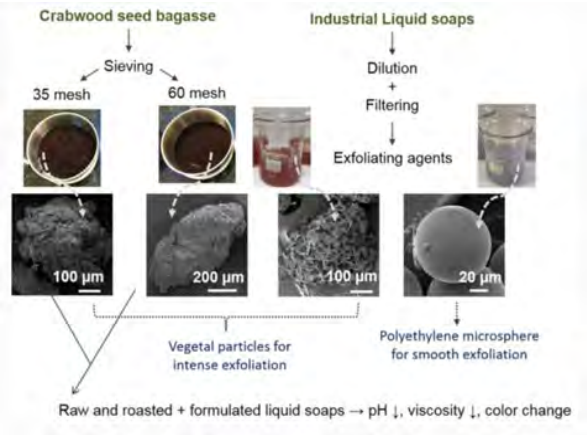



**Fig. 1.** Scheme of pre-treatments with calcium silicate and magnesium silicate on the EUC fibers; production of MFC/NFC, and cardboard coating.



**Systems and Automation Engineering Graduate Program - PPGESISA**

Ricardo Rodrigues Magalhães - Coordinator
ricardorm@ufla.br

**Brief description of Program**

PPGESISA is focused on interdisciplinary researches on theories, methods and applications involving modeling, design, implementation and analysis of physical and virtual systems such as industrial, mechatronics, agricultural and IA.

**Brief description of the program's lines of research**

Intelligent Systems: Artificial Neural Networks; Fuzzy and Embedded Systems; Evolutionary Computation and Optimization; Dynamic Systems Identification and Control; Pattern Recognition; Numerical Methods; Evolutionary algorithms.

Automation and Instrumentation: Signal and image processing; Machine Vision; Optical Metrology; Pattern Recognition; Instrumentation; Voice and Video Coding.

**Describe which Chinese University has the area/line of research or topics of interest to the Program and, if possible, the contact of the Chinese researcher.**

Hebei University – Researcher: Wang Yan

Normal University – Researcher: Zhao Hong

Shanghai Jiao Tong University – Researchers: Wang Jing and Yuanxin Wu

Zhejiang University – Researcher: Chen Xiaoyan

## Graduate Program in Forest Engineering

Natalino Calegario
calegari@ufla.br

### Brief description of Program

The Graduate Program in Forest Engineering (PPGEF), at the Master's and Doctorate levels, aims to qualify professionals for higher education, research, innovation, and extension activities, enhancing their knowledge in Forest Sciences

### Brief description of the program's lines of research

The Graduate Program has three research lines: 1) Forest Ecology: This line focus on tropical forest conservation and preservation; 2) Forest Management: This line deals with forest management and regulation techniques of both natural and plantation forests; 3) Forest Silviculture and Genetics: This line focus on silvicultural and genetic studies of both natural and plantation forests.

### Describe which Chinese University has the area/line of research or topics of interest to the Program and, if possible, the contact of the Chinese researcher.

The following Chinese Universities have compatible graduate programs and research lines:

Zhejiang University, Anhui Agricultural University, Fujian Agriculture and Forestry University, Jiangsu Polytechnic College of Agriculture and Forestry, Beijing Forestry University, Northeastern Forestry University, and others.


Ciências
Florestais

## Graduate Program in Chemical and Materials Engineering

Rafael Farinassi Mendes
Rafael.mendes@ufla.br

### Brief description of Program

The program has a multidisciplinary profile, with a strong profile of innovation and interaction with industries, enabling the development of new products and processes with economic viability and sustainability.

### Brief description of the program's lines of research

Bioprocesses, bioenergy and petrochemistry

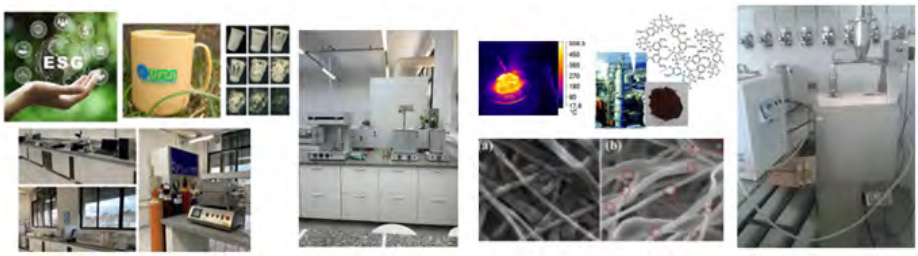
Technology and innovation in chemical and agro-industrial processes

Science and Technology of Materials

Materials for Industrial Application

### Describe which Chinese University has the area/line of research or topics of interest to the Program and, if possible, the contact of the Chinese researcher.

- Development, optimization and application of industrial processes and their products;
- Chemical and agro-industrial processes;
- Improvement of the quality of processes and products, in addition to minimizing the impact of the productive sector on the environment and society.
- Development and/or improvement of products and processes for application in industrial scale of ceramic, polymeric, metallic and composite materials;
- Synthesis, processing, characterization and applications of materials;
- Sustainable materials.



**Program: Health Sciences**

Bruno Del Bianco Borges
bruno.borges@ufla.br

**Brief description of Program**

The Master's Program in the Graduate Program of Health Sciences/PPGSA is designed to train students with autonomy, critical-reflexive sense and solid knowledge to work in teaching and research in a professional and interdisciplinary manner within the field of Health Sciences.

**Brief description of the program's lines of research**

The Program is distributed in the following lines: 1) Metabolic Disorders, Inflammation and Functional Foods; 2) Epidemiology, education, and evaluation of health processes; 3) Experimental and behavioral neurobiology; and 4) Parasite-host relationship and vector control.

**Describe which Chinese University has the area/line of research or topics of interest to the Program and, if possible, the contact of the Chinese researcher.**

China has several universities that offer programs in health sciences and conduct research in various areas of interest, such as clinical medicine, public health, biomedical sciences, and pharmaceutical sciences. The research topics include cancer biology, epidemiology, molecular medicine, health policy, among others. Thus, an international partnership with a Chinese institution in the area of health sciences could bring great benefits to a growing program like ours, as it would promote access to specialized knowledge and resources, collaboration with high-level research and researchers, expansion of international partnerships in the Program and improvement in internationalization. Overall, this partnership holds potential for advancing research within our program, fostering academic collaboration, and contributing to the general development of health sciences at UFLA.

## Graduate Program in Computer Science

André Pimenta Freire, PhD (Ebor)
apfreire@ufla.br

### Brief description of Program

The Computer Science Graduate Program offers a Master's degree in Computer Science, with courses in Portuguese and in English. The program boasts robust partnerships with institutions worldwide.

### Brief description of the program's lines of research

The program has three lines of research: 1) Software Engineering and Information Systems, 2) Artificial Intelligence and Optimization and 3) Computer Systems. It covers a diverse set of research projects involving pure and applied studies in Computer Science.

**Describe which Chinese University has the area/line of research or topics of interest to the Program and, if possible, the contact of the Chinese researcher.**

Beijing Normal University - School of Artificial Intelligence

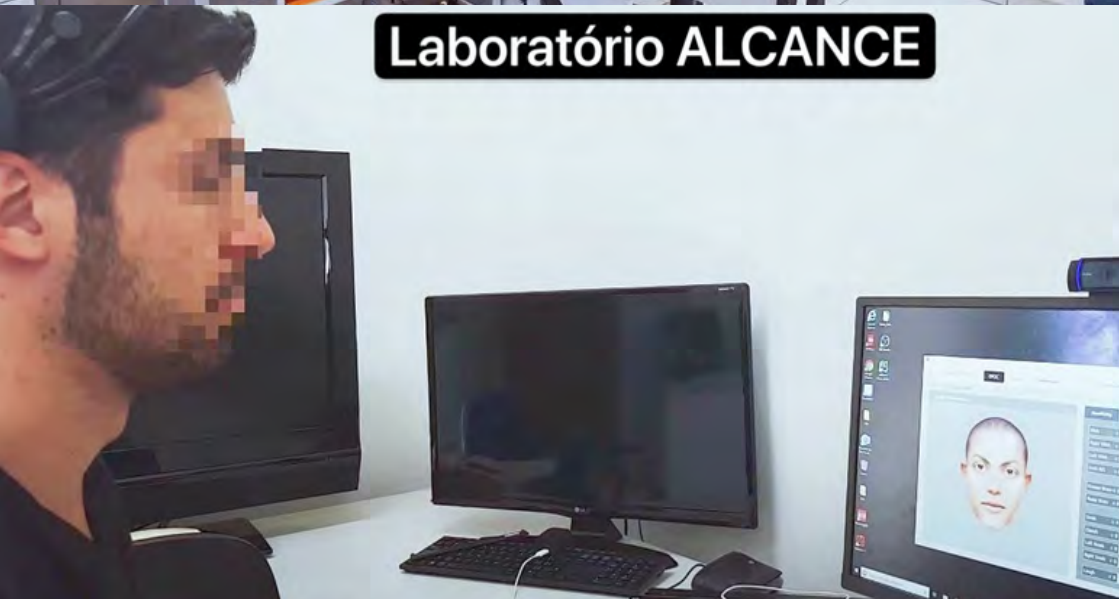
Beijing Normal University - Institute of Chinese Information Processing

Hebei Normal University - Computer Science and Technology

Shanghai University – Communication and Information System


GRUBi


GRUBi - Com


Laboratório ALCANCE

**Graduate Program in Linguistics**

Coordinator Patricia Vasconcelos Almeida
Associate Coordinator Rodrigo Garcia Barbosa
patricialmeida@ufla.br - rodrigobarbosa@ufla.br

**Brief description of Program**

The Academic Graduate Program in Languages aims to qualify researchers and teachers for advanced academic performance, transforming procedures and processes inherent to the questions of language and culture, carried out through reflection on individuals and society.

**Brief description of the program's lines of research**

Line 1 - Descriptive-analytical studies of verbal language/language and their technologies Description: The line addresses the analytical-descriptive foundations of linguistic processes and their constitution within the scope of social dimensions, their uses and technologies in the process of description and analysis.

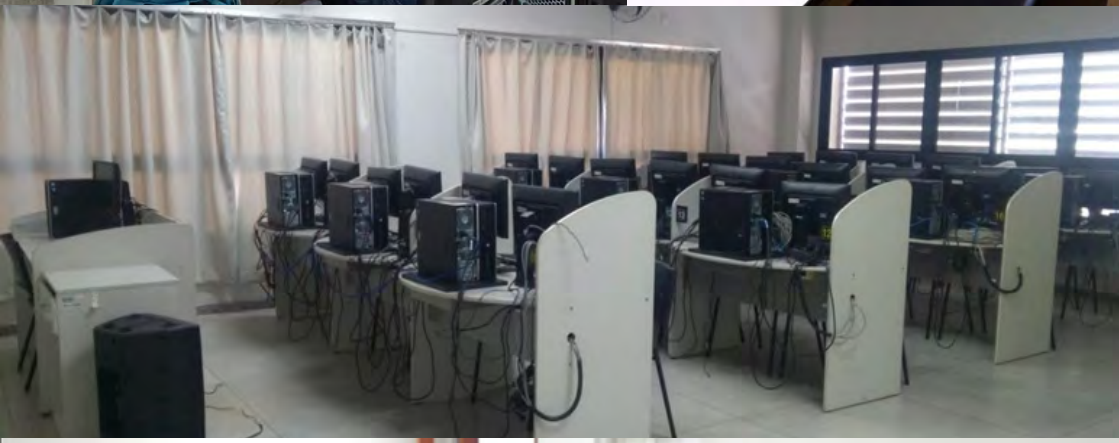
Line 2 - Cultural objects and sense production Description: This line brings together studies focused on the multiple approaches and analysis of cultural objects, both from the discursive and literary point of view, which contribute to various forms of apprehension/meaning production.

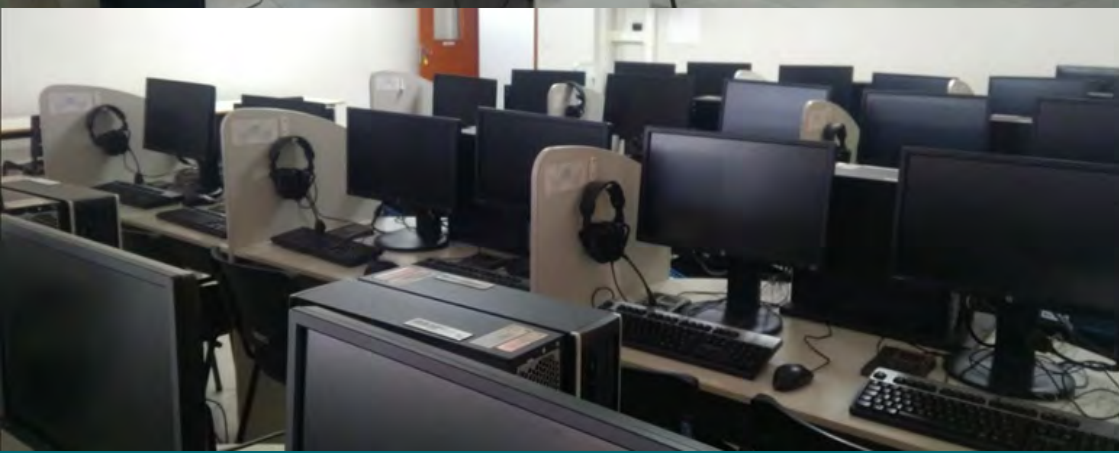
**Describe which Chinese University has the area/line of research or topics of interest to the Program and, if possible, the contact of the Chinese researcher.**

Xangai University - Foreign Linguistics and Applied Linguistics, Linguistics and Applied Linguistics, Portuguese Language and Literature and a huge field in other languages and literatures.

Beijing Normal University - School of Foreign Languages and Literature, School of Chinese Language and Literature

Hebei Normal University (Shijiazhuang) – it has a great program in School of Chinese Language and Literature, College of International Culture Exchange and School of Foreign Languages



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