

JUNIA

SCIENCE AND TECHNOLOGY
FOR A SUSTAINABLE FUTURE

Join JUNIA as a visiting professor in

- Health and environment
- Agriculture and landscape
- Food sciences
- Building and urban environment
- Computer science and mathematics
- Smart systems and energies
- Engineering
- Electronics, physics and acoustics

26-27



Incoming opportunities



Language of Instruction:
English, French



Mobility may be eligible
for Erasmus funding,
if available



Meals and lodging covered
by JUNIA when applicable



Travel expenses covered
by JUNIA when applicable



Interested people should get in contact
with international.cooperation@junia.com

*If you have questions concerning a course,
the international office can put you in contact
with the relevant academic staff.*

junia.com

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The International Office will connect you to the relevant academic staff.**

26-27

Incoming opportunities



Number of
teaching hours



Ideal
Period



Level



Language



Blended/Virtual
mobility

Detailed description of the courses (content, objectives...) available upon request

HEALTH AND ENVIRONMENT					
Industrial Water Management, Waste Water Treatment, Water Re-Use...	6h - 8h	Feb. - May	Master	English	Open to discussion
Alternative Use of Polluted Sites / Sustainable Management of Polluted Areas / Landscape Management	6h - 8h	Sept. - Dec.	Master	English	Open to discussion
Solid Waste Management and Circular Economy	6h - 8h	Feb. - May	Master	English	Open to discussion
The Role of Biomass in the Bioeconomy: From Bioenergy to Green Chemistry	6h - 8h	Jan. - Jan.	Master	English	Open to discussion
Ecological Restoration	6h - 8h	Sept. - Dec.	Master	English	Open to discussion
Applied Techniques of Pollution Remediation	6h - 8h	Sept. - Dec.	Master	English	Open to discussion
Soil Ecology	6h - 8h	Feb. - April	Master	English	Open to discussion
Polluted Sediment and Sludge Management, Treatment and Valorization	6h - 8h	Mar. - April	Master	English	Open to discussion
Pollutants in the Environment (Soil/Water/Air) - Sources, Types, Characteristics, Fate...	6h - 8h	Sept. - Oct.	Master	English	Open to discussion
Toxicology-Ecotoxicology	6h - 8h	Sept. - Dec.	Master	English	Open to discussion
Green Transition and Climate Change	6h - 8h	Sept. - Dec.	Master	English	Open to discussion
Communication Skills and Tools (Oral Defence / Public Presentation...)	6h - 8h	Sept. - Dec.	Master	English	Open to discussion
QHSE	6h - 8h	Sept. - Dec.	Master	English	Open to discussion
AGRICULTURE AND LANDSCAPE					
Agriculture and Climate Change : Adaptation and/or Mitigation Strategies	4h - 8h	Jan. - Feb.	Master	English	Open to discussion
Plant Breeding and Genetics (Breeding Methods and Biotechnologies Used in Plant Breeding)	8h	Mar. - Mar.	Master	English	Open to discussion
Biocontrol for Sustainable Crop Protection (Beneficial Microorganisms Used in Plant Protection ; Plant Protection Using Resistance Inducers Activating Plant Immunity Against Pathogens)	8h	Jan. - Jan.	Master	English	Open to discussion
Animal Production Systems: Ovine (Sheep) and Goat Production Systems	8h	Mar. - May	Master	English	Open to discussion
Animal Production Systems: Bovine (Meat) Production Systems	8h	Mar. - May	Master	English	Open to discussion
Feed Evaluation Systems, Roughage Production (Systems)	8h	Mar. - May	Master	English	Open to discussion

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AGRICULTURE AND LANDSCAPE					
Robotics and Artificial Intelligence in Agriculture (Crops and Livestock): Introduction, Roles, Pros and Cons, Concrete Examples	8h - 12h	Oct. - Nov.	Master	English	Open to discussion
Livestock Systems in Your Country	4h - 8h	Mar. - May	Master	English	Open to discussion
Animal Health (Infectious Diseases, Locomotor Disorders, Parasitism, Mastitis Management)	4h - 12h	Oct. - Nov.	Master	English or French	Open to discussion
Agroecology (History, Fundamentals, Scientific Approach and Practices)	8h	Sept. - Sept.	Master	English	Open to discussion
Water and Irrigation Management for Agricultural Purposes in the Context of Climate Change, Conflicts of Use	8h	Jan. - Jan.	Master	English	Open to discussion
Farm Sustainability Assessment (Methodology/Tool and Case Studies) - Economic Sustainability - SOCIAL Sustainability	8h	Dec. - Jan.	Master	English	Open to discussion
Statistics on R: Descriptive Statistics, Variance Analysis, Data Visualisation	8h - 12h	Oct. to Feb. or Dec. to Mar.	Master	English	Open to discussion
Milk Production and Dairy Chain	4h - 12h	Open to discussion	Master	English or French	Open to discussion

FOOD SCIENCES					
Nutrition (Functional Foods, Impact of Processes on the Nutritional Quality...)	4h - 8h	Feb. - Mar.	Master	English	No
Nutrition (Functional Foods, Impact of Processes on the Nutritional Quality...)	4h - 8h	Jan. - Jan.	Master	French	No
Six Sigma - Process Capability and Process Performance - Statistical Process Control	8h	Nov. - May	Master	English or French	No
Packaging (Roles, Types of Packaging Materials for Food, Considerations for Use of Different Packaging Materials, Environmental Issues)	8h - 12h	Nov. - May	Master	English or French	No
Industry 4.0 (The Digital Transformation of the Food Industry, How Are Companies Doing?, Benefits of Industry 4.0, Implementation and Technologies)	8h	Jan. - June	Master	English or French	No
CSR Concepts	14h - 18h	Sept. - Dec.	Master	English	No
FSMS Focus on IFS, BRC and/or FSSC22000	6h - 12h	Sept. - Dec.	Master	English	No
(New) Analytical Techniques in Food Sciences (or Food Industry)	4h - 8h	Mar. - May	Master	English	No
(Nouvelles) Techniques d'Analyses en Science des Aliments/Industrie Alimentaire	4h - 8h	Oct. - Nov.	Master	French	No

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FOOD SCIENCES					
Les Techniques Spectrales dans l'Analyse Des Produits Alimentaires : NIR, RMN...	2h - 4h	Oct. - Oct.	Master	French	No
Spectral Techniques in Food Analysis: NIR, NMR, etc.	2h - 4h	Mar. - April	Master	English	No
Cleaning and Disinfection: Applications in Food Processing	8h - 12h	Dec. - Dec.	Master	English or French	No
Industrial Engineering in Food Industry - Project Management	4h - 8h	Dec. - Dec.	Master	English or French	No
Ecodesign in Food Industry (Life Cycle of Food Product)	4h - 8h	Nov. - Jan.	Master	English	No
Cleaning and disinfection: applications in food processing	8h to 12h	Oct. - Nov.	Master	French / English	No
Safety in Industry	4h to 8h	Jan.	Master	French / English	No
BUILDING AND URBAN ENVIRONMENT					
Intercultural Communication	10h	Sept. - Oct.	Master	English	No
Planning Town and Environment Regulations	15h	Sept. - Dec.	Master	English	No
Intelligent Transportation System and Traffic Management	20h	Jan. - April	Master	English	Open to discussion
BIM Parametric Design	8h - 15h	Jan. - April	Master	English	Open to discussion
Smart Water	8h - 15h	Jan. - April	Master	English	Open to discussion
Planning and Design of Urban Space	3h - 4h	Sept. - Nov.	Master	English	No
GIS and Urban Planning	6h	Sept. - Oct.	Master	English	No
Sustainable Architecture / Construction	8h	Jan. - April	Master	English or French	Open to discussion
Architecture History Culture	4h - 8h	Sept. - Nov.	Master	English or French	Open to discussion
Functional Textiles	8h	Sept. - Nov.	Master	English or French	Open to discussion
Surface Treatments (Textile Finishing) and Coating	8h	Jan. - April	Master	English or French	Open to discussion
Knitting Technologies	8h	Sept. - April	Master	English or French	Open to discussion
BUILDING AND URBAN ENVIRONMENT					
Technical Textiles & Nonwovens	8h	Sept. - Jan.	Master	English or French	Open to discussion
Spinning Technologies	8h	Sept. - Jan.	Master	English or French	Open to discussion
Fibrous Materials	8h	Sept. - Dec.	Master	English	Open to discussion
Advanced Technical Textile	8h	Sept. - Feb.	Master	English	Open to discussion

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COMPUTER SCIENCE AND MATHEMATICS					
Databases (SQL)	8h	Jan. - April	BSc 1	English	Open to discussion
Modelling with PDEs	8h	Jan. - April	BSc 2	English	No
Laplace Transforms and Transfer Functions	8h	Jan. - April	BSc 2	English	No
Markov Chains and Modelling	8h	Jan. - April	BSc 2	English	No
Optimization for Engineering (Linear Programming and Lagrange Multipliers)	8h	Jan. - April	BSc 2	English	No
Least Squares Methods (Calculus Point of View)	8h	Jan. - April	BSc 2	English	No
Discrete Optimization for Engineering	8h	Jan. - April	BSc 2	English	No
Fourier Series	8h	Jan. - April	BSc 2	English	No
Parametric Estimation	9h	Jan. - Feb.	BSc 2	English	No
Statistical Hypotheses Test	9h	Mar. - April	BSc 2	English	No
Linear Regression (Simple, Multiple and its Diagnostic)	9h	Feb. - April	BSc 2	English	No
COMPUTER SCIENCE AND MATHEMATICS					
Principal Components Analysis	9h	Feb. - April	BSc 2	English	No
Introduction to Machine Learning	9h	Mar. - April	BSc 2	English	No
Advanced Programming (C Language)	8h	Jan. - April	BSc 2	English	Open to discussion
Splines: Interpolation, Bézier Curves, B-Curves	8h	Sept. - Dec.	BSc 3	English	No
Network Bases	8h - 16h	Sept. - Dec.	MSc 1	English	Open to discussion
Applied Optimization with CPLEX and/or Gurobi	8h	Oct. - Oct.	MSc 1	English	No
Artificial Intelligence: Machine Learning and Deep Learning	8h	Jan. - Feb.	MSc 2	English	No
Special or Current Topics in CS, AI, Data, Cybersecurity, Software development, Information Systems, ...	8h	Feb. - Feb.	MSc 2	English or French	No
SMART SYSTEMS AND ENERGIES					
Signal Analysis	14h	Sept. - Dec.	Master	English	Open to discussion

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ENGINEERING					
Creativity and innovation	20h	Nov. - Dec.	BSc 1	English	No
Séminaire de Créativité	21h	Feb. - Mar.	BSc 1	French	No
Hackathon Innovation	21h	Dec. - Dec.	BSc 3	French	No
Hackathon Innovation	21h	April - April	MSc 1	French	No
Hackathon Innovation	21h	April - April	MSc 2	English or French	No

ELECTRONICS, PHYSICS AND ACOUSTICS					
Microelectronics: Analog, Mixed-Signal or Digital Integrated Circuit Design	4-8	Sept. to Jan. or Oct. to Mar.	Master	English or French	Open to discussion
Photonic Integrated Circuits: Basics	8h - 12h	Sept. to Jan. or Oct. to Mar.	Master	English or French	Open to discussion
Material Engineering, Metamaterials: Optics, Mechanics, Acoustics	8h - 12h	Sept. to Jan. or Oct. to Mar.	Master	English or French	Open to discussion
Millimeter-Wave Integrated Circuits: Basics	8h - 12h	Sept. to Jan. or Oct. to Mar.	Master	English or French	Open to discussion
Physical Material Characterisation	8h - 12h	Sept. to Jan. or Oct. to Mar.	Master	English or French	Open to discussion
Small AI - Edge AI	8h - 12h	Sept. to Jan. or Oct. to Mar.	Master	English or French	Open to discussion

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