

# Role of higher education in setting bioeconomy agenda and developing bioeconomy eco-system

BioEcUz Forum in Uzbekistan

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# JAMK University of Applied Sciences



**8500**

Students



**700**

Personnel



**1344**

Bachelor's and Master's  
degrees 2019



**4**

International  
Campuses



**60** M€

Turnover



**11** M€

Volume of  
RDI Activities



**390**

Qualifications for  
Professional Teachers

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# Quality

Recognition by the Finnish Higher Education Evaluation Council (FINHEEC) /  
Finnish Education Evaluation Centre (FINEEC)

- Audit Certificate and a Quality Label 2019–2025
- Audit certificate of the quality system 2006–2012 and 2013–2019.  
The second audit was conducted by an international audit team.

Recognition by the European Commission

- Diploma Supplement Label 2013–2016
- Erasmus Charter for Higher Education 2021–2027
- Erasmus Golden Award for Excellence 2013, first place in quality and staff mobility in Europe.



# Quality

## EFMD Programme Accreditation

- Degree Programme in International Business

## EUR-ACE Accreditation

- Degree Programme in Information and Communications Technology
- Degree Programme in International Logistics
- Degree Programme in Mechanical Engineering

## IUHPE European Health Promotion Accredited

- Master's Degree Programme in Health Promotion



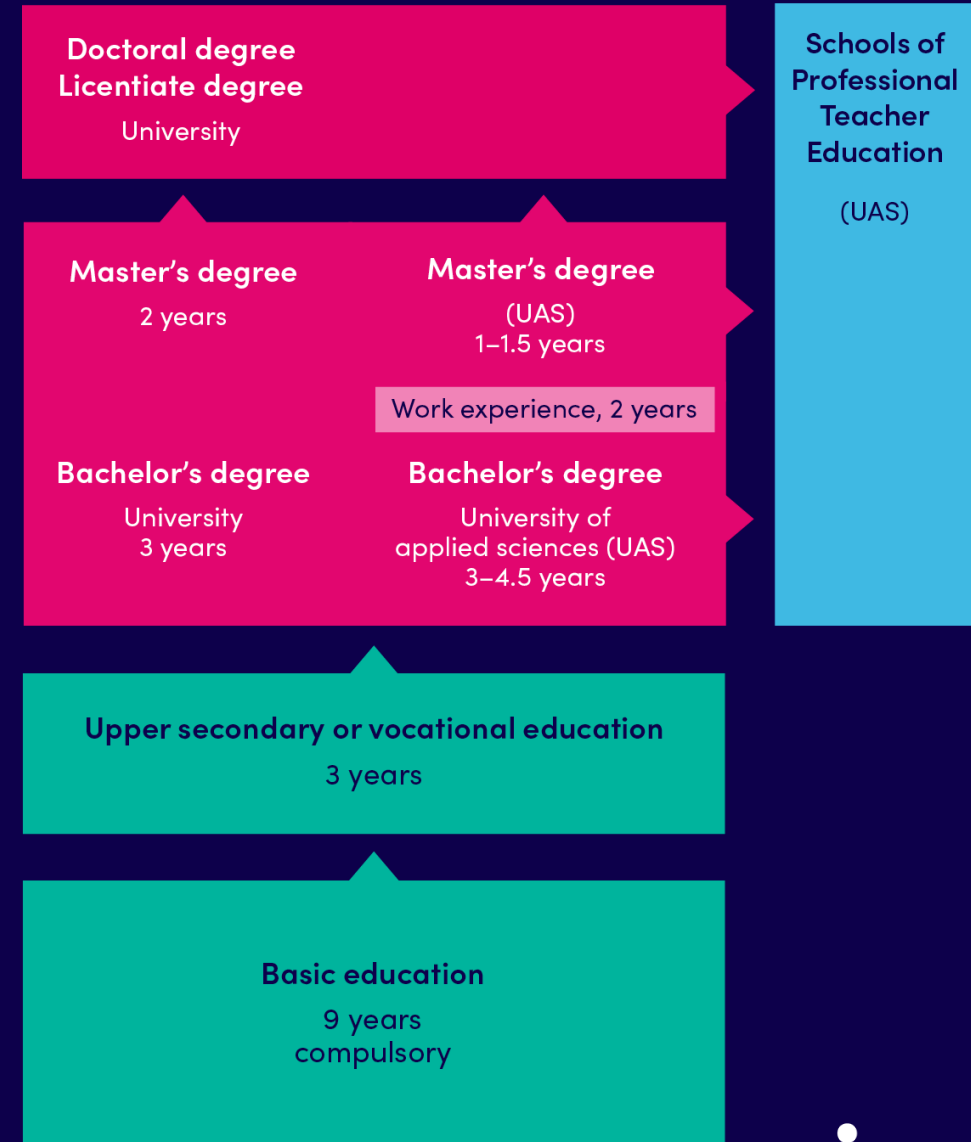
# The Finnish Education System

The Finnish higher education system comprises universities and universities of applied sciences.

Universities conduct scientific research and provide education based on it.

Universities of applied sciences (UAS) provide more practical education that aims to respond to the needs of the labour market.

Universities of applied sciences award UAS Bachelor's degrees, UAS Master's degrees and professional teacher education.



# JAMK's Focus Areas

Bioeconomy

Multi-  
disciplinary  
Rehabilitation

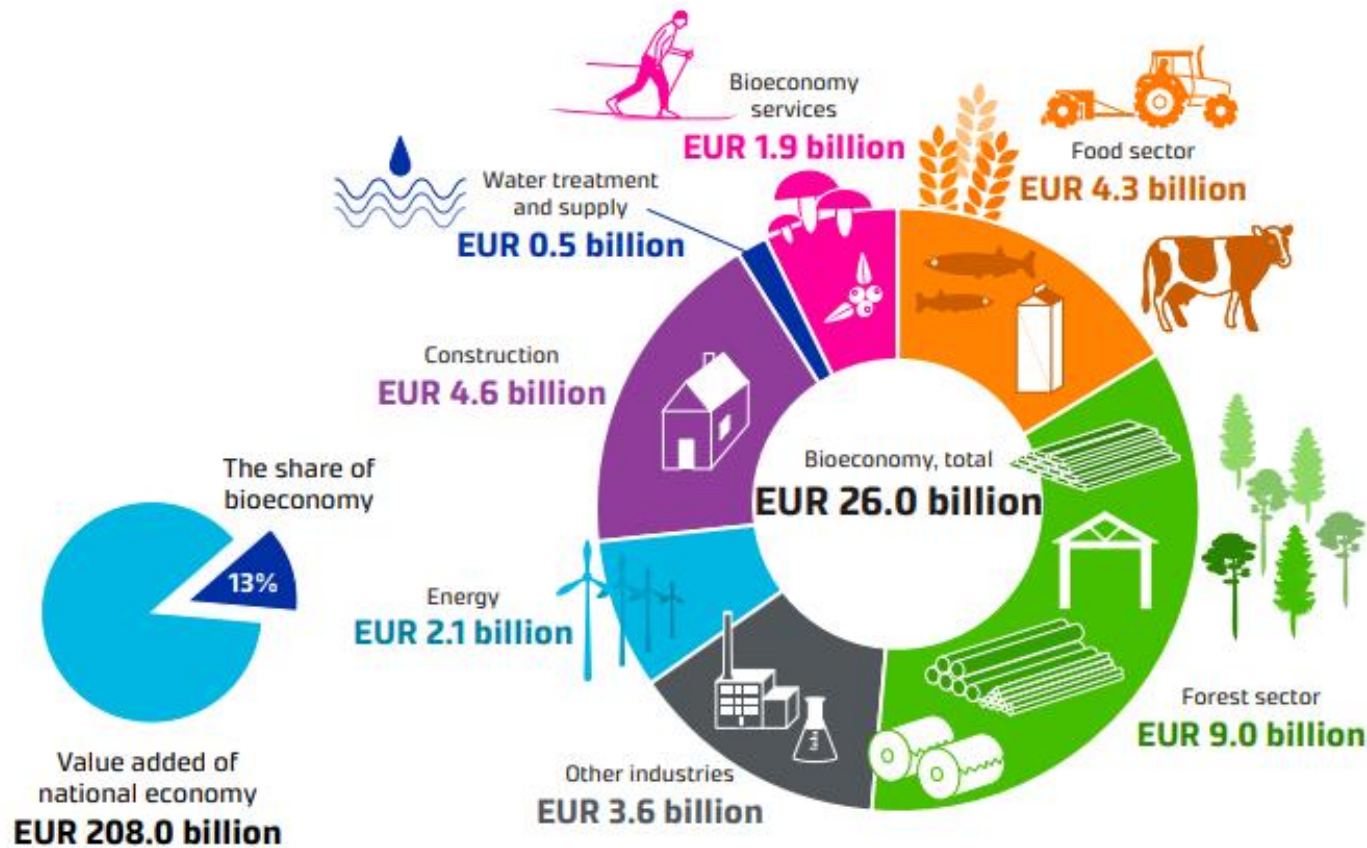
Applied  
Cyber Security

Automation  
and Robotics

Tourism

Innovative  
Learning

# Value added of bioeconomy in Finland, 2019\*



\* Preliminary data Sources: Statistics Finland and Natural Resources Institute Finland

# Definition of bioeconomy in Finland

Bioeconomy refers to an economy that relies on renewable, biological natural resources in a resource-wise manner to produce food, energy, products and services.

The most important renewable, biological resources in Finland are the biomass, or organic matter, in the woods, soil, fields, water systems and the sea, and fresh water. These are used as raw materials and processed products.

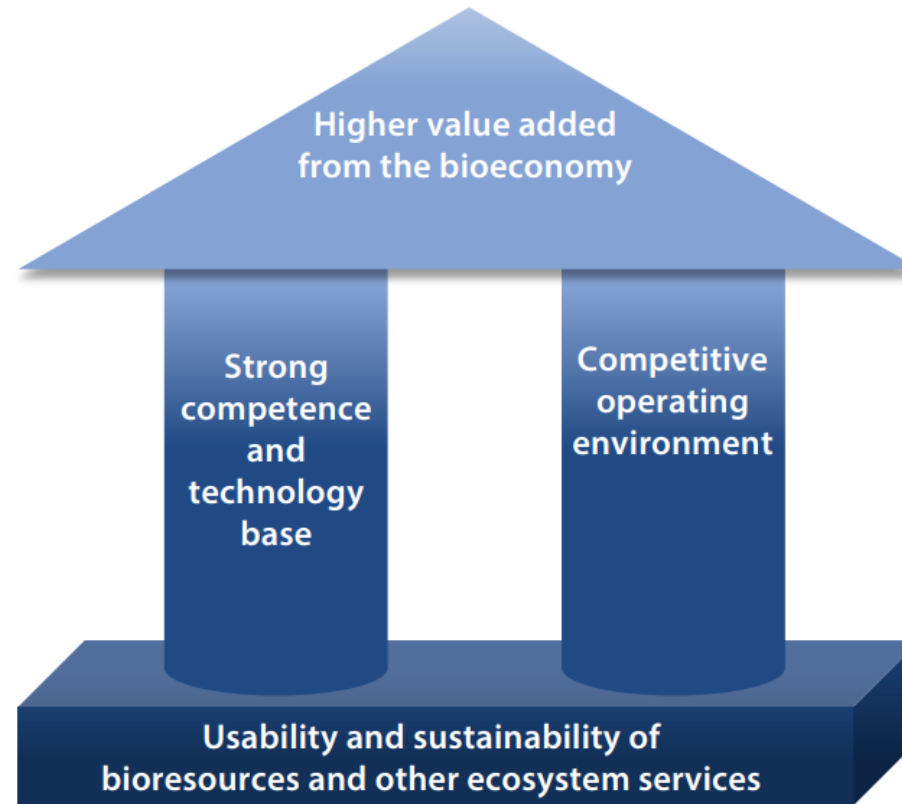
Ecosystem services are part of the bioeconomy.

The bioeconomy can also include the development and production of technologies, applications and services based on the sustainable exploitation of natural resources

Source: [The Finnish Bioeconomy Strategy. Sustainably towards higher value added \(valtioneuvosto.fi\)](https://valtioneuvosto.fi)



# Strategic priorities of the Finnish Bioeconomy Strategy 2035

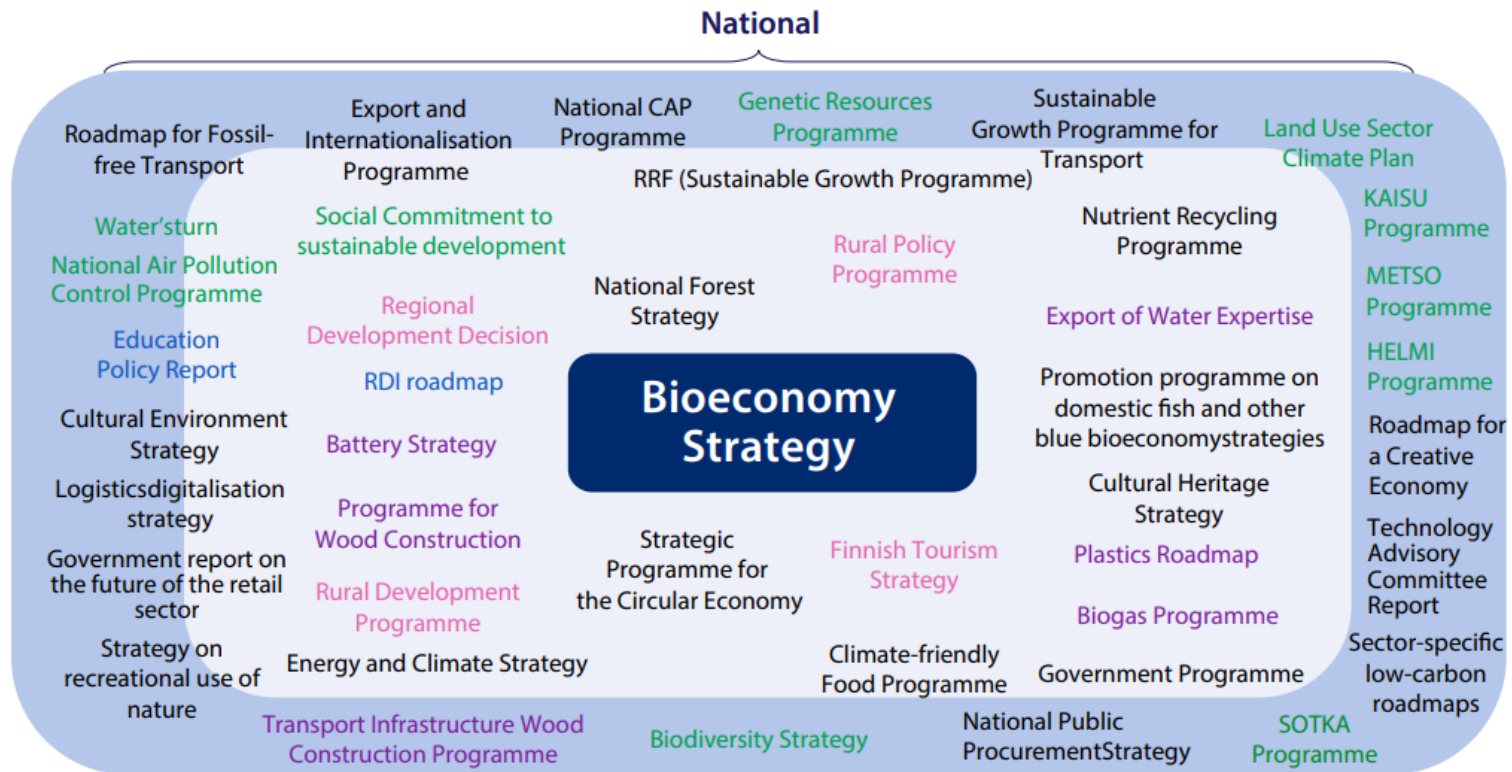


Source: [The Finnish Bioeconomy Strategy. Sustainably towards higher value added \(valtioneuvosto.fi\)](https://valtioneuvosto.fi)

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# The Bioeconomy Strategy is linked with other national strategies

Source: [The Finnish Bioeconomy Strategy. Sustainably towards higher value added \(valtioneuvosto.fi\)](https://valtioneuvosto.fi)



Strategic priorities of the Bioeconomy Strategy

- A competitive operating environment
- A strong competence and technology base
- Other cross-sectoral
- Higher value added from bioeconomy
- Usability and sustainability of biorecources and other ecosystem services

# JAMK Institute of Bioeconomy



Operational areas implementing the Finnish Bioeconomy Strategy

## Bachelor's Degree Programme in Agricultural and Rural Industries

- Bachelor of Natural Resources 240 ECTS / 4 yrs
- Studies for high school students (1-2 ECTS)
- Open university studies

## Master's degree (60 ECTS)

- Focus on ecological, economical and social development of bioeconomy

## Research and Development

- 30 RDI projects
- Annual project portfolio value of 2 M € (2022)
- Experience from regional, national and international projects (i.e. ERDF, ESF, Interreg, EAFRD, Horizon 2020, Erasmus+)
- Internships and topics for thesis for students

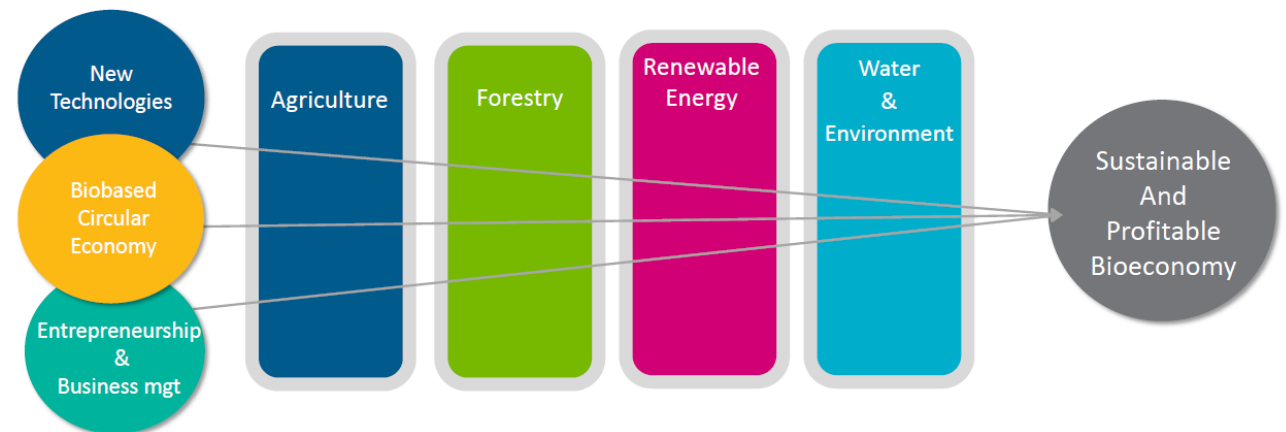
# JAMK Institute of Bioeconomy

A competence center combining the sustainable use of natural resources and digitalization

## Key strengths:

- Strong business orientation both in agrologist education and R&D and co-operation with various industries related to bioeconomy.
- Smart Farming applied research team.
- Pilot scale facilities for distributed energy generation and smart farming.
- Last mile test bed for 5G/6G/XG based solutions in bioeconomy.

## Focus areas of JAMK Bioeconomy

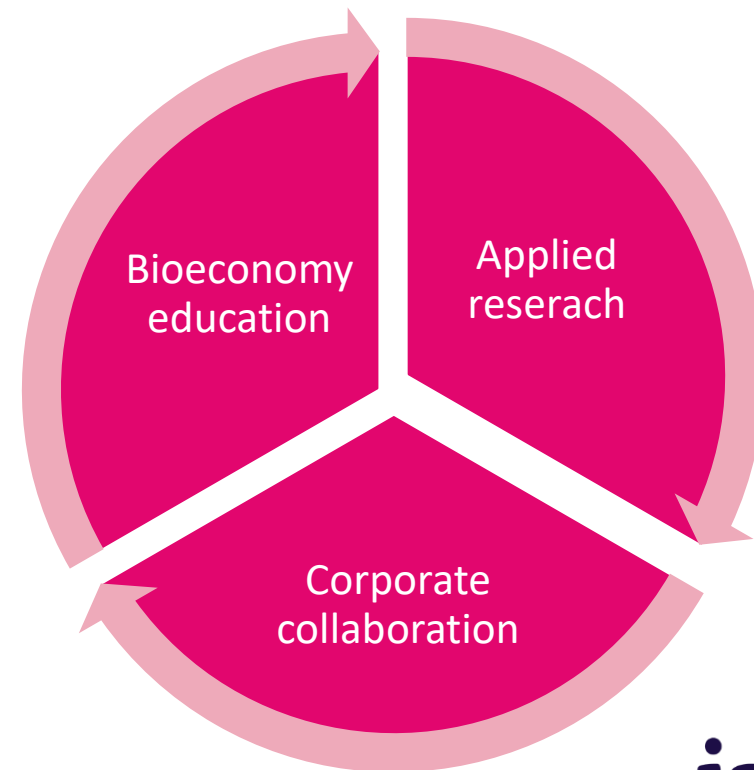


# JAMK Institute of Bioeconomy implementing the Finnish Bioeconomy Strategy

## Mission statement:

**Our job is to foster the progress of sustainable and profitable bioeconomy in the society.**

- ✓ Educate new professionals.
- ✓ Renew primary production.
- ✓ Foster the RDI and implementation of new biobased solutions.
- ✓ Speed up the growth of biobased businesses.
- ✓ Spread out the latest information.



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# Tarvaala Smart Farm + AB SmartDIH

## Tarvaala Smart Farm:

- fields
- forests
- waters
- plant production
- animal husbandry
- data-based Smart Farming
- latest technologies
- research & practice

Meeting point of  
companies, end-users,  
researchers, developers,  
students, educators...

Competence centre:  
-RDI, research  
-education  
-business creation and  
acceleration

DIH services:  
-startup/business creation  
-advisory/consultancy  
-competence building  
-innovation experiments...

Living Lab:  
-User-Centred Design  
-Multi-Actor Approach  
-real-life testing, piloting  
with end-users

# JAMK tools for corporate collaboration

## Education

Student recruitment

Project work

Internships

Thesis

Targeted educational courses and programs for labour markets

## Research and Development

Unique testing and piloting environment

Analysing services

Laboratory services

Project management services

International networks

Joint recruitment

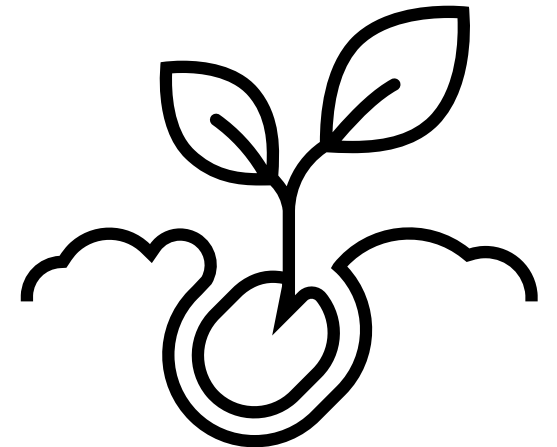
## Acceleration Services BioPaavo by Jamk

Hackathon services

Call for Innovation

Workshop

Webinars



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# Valtra -path at JAMK

## Bachelor of Natural Resources Studies

Extension max 72 ECTS/240 ECTS

1. Innoflash –studies: project work for Valtra 2 ECTS
2. Future Factory –studies: workplace development project for Valtra 10 ECTS
3. Internship at Valtra 15 ECTS (4. year)
4. Optional studies in new technology: excercises from Valtra 0-30 ECTS
5. Thesis for Valtra 15 ECTS



LIITY  
VALTRA  
EXPERIENCE  
SQUADIIN

Pölkkeusolojen jälkeen on aika perustaa joukkuue! Nyt on sinun mahdollisuutesi päästä mukaan Valtra eXperience Squadiin, jonka tehtävä on aloittaa uuden sukupolven tehdasvierailut.

Valtra eXperience Squad -oppaiden haku on käynnissä 7.1.2022 saakka, tule mukaan! Ilmoittautumiset Juha Huulalle, juha.huula@jamk.fi / 040 760 2563.

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VALTRA

YOUR WORKING MACHINE



Thank you!

**jamk** | Jyväskylän ammattikorkeakoulu  
University of Applied Sciences