Université Joseph Fourier in Grenoble

Higher Education and Research in a cutting edge environment

www.ujf-grenoble.fr
Université Joseph Fourier – Grenoble 1

- Science
- Technology
- Medicine

- 19 000 students
  (2100 PhD students)
UJF in short

- **16 800** students (out of PhD students)
- **1 500** academic staff
- **1 400** technical and administrative staff
- **16 departments** including an Institute of Technology and an Institute of Engineering
- **83 master’s programs**

- **50 research laboratories gathering 2100** doctorate students
- **8 doctoral schools**
- **5 top level international schools**
- **Research valorisation**: 1 developpement compagny, Floralis
  - 31 start-up companies in the past 10 years
- **240 M€ budget**
Ranking

- **Shanghai Ranking 2010**
  L'Université Joseph Fourier : 6th french university, in the world’s top 200, top 100 in Physics, Natural sciences and mathematics

- **Ranking by the Centre for higher education development, Gütersloh - CHE (Allemagne)**
  UJF is among leading european science universities in the four disciplines considered : biology, chemistry, physics and mathematics

- **Leiden Ranking (Netherlands)**
  In the Top 100 European universities placed 55th among European universities for the average impact of publications – second highest french university in ranking, just two places behind Pari XI

- **Ranking published by Institut Montaigne (France)**
  With 52.8% of its researchers in internationally recognized laboratories publishing abroad, UJF is the top french university in the list of the best universities for research in hard science.
Training

Science, technology, medicine and society

- Medicine and pharmacology: 26%
- Science and technologies: 49%
- Miscellaneous: 2%
- Science of physical exercise and sport: 8%
- Human and social sciences: 4%
- Graduate teacher training: 11%
Teaching and training

- Undergraduate and graduate programmes in a wide range of disciplines...
  - Biology
  - Earth, Universe and Environment Sciences
  - Educational Sciences
  - Engineering and technologies
  - Mathematics and Computer Science
  - Information Technology
  - Medicine and Health Science
  - Physics and Chemistry
  - Sports Sciences

- More than 80 Master’s degrees
Master programmes taught in English

3 Masters Erasmus Mundus
- BioHealth Informatics
- Engineering for Earthquake Management and Seismology
- Nanoscience-Nanotechnology

Other Masters taught in English
- Information Science
- Physiology and Epigenetics Development
- Neurosciences and Neurobiology
- Chemistry
- Systems Control and Information Technologies
- Geomechanics, Civil Engineering and Risks
- Fluid Mechanics and Energetics
- Environmental Fluid Mechanics
- Hydro-meteorological Hazards Management

4 International Bachelor's degree
- Network and Telecommunications
- Chemistry and Biology
- Mathematics and Informatics
- Physics
Every year UJF welcomes:

Nearly **2,300** international students of which more than **300** are on exchange programmes.

Every year almost **650** students study abroad **300** students as part of exchange programmes **350** students in the course of an internship Abroad.
International Partner universities worldwide

Conventions UJF (out of exchange programmes)

+20
+10
1 à 10
Grenoble

Highlights of the history of a scientific site
Joseph Fourier

Lives in Grenoble from 1802 to 1813. Nominated Prefect (representative of the government) by Napoléon.

Contributes to two important large civil engineering projects.

Studies heat conduction (experiments and modelling) and invents what are now called Fourier series and Fourier analysis. Well-known book “Heat theory”.

Creates the Faculty of Science of the University of Grenoble in 1811.

Aristide Bergès

Arrives in Grenoble in 1866.

Develops hydraulic power for the paper making industry.

First use of hydraulic power to produce electricity on a large scale (hydroelectric energy).

Houille blanche – hydroelectric energy / Houille (noire) – Coal
Louis Néel

Arrives in Grenoble in 1945.

Helps developing Grenoble as a scientific centre of excellence:
- first CNRS laboratory outside Paris (1946),
- Grenoble Atomic energy center (1956),
- European high flux neutron source (1967).

Helps developing strong relationships with local industry and creates the engineer curricula in Grenoble.

Nobel laureate 1970 (physics).

Paul Louis Merlin

With Paul Gerin creates Merlin-Gerin, a world leader in the electrical engineering industry, now part of Schneider Electric.

Promotes the relationships between the university and the industrial sector.

Grenoble center of excellence in microelectronics – MINATEC.

R&D centers: ST Microelectronics – Freescale semiconductors (Motorola) – Philips semiconductors and Schneider Electric.
5 top level
International schools

- Les Houches Physics School
- HERCULES
  *Higher European Research Course for Users of Large Experimental Systems*
- ERCA
  *European research course on atmospheres*
- ESONN’
  *European School on nanosciences and nanotechnologies*
- Mathematics Summer School
Partnership: UJF + 5 Universities

UNIVERSITÉ DE GRENOBLE
Partnership:
research centers
France:
approx. 61 000 000 inhabitants

Rhone-Alpes:
approx. 6 000 000 inhabitants

Grenoble-Isère:
1 200 000 inhabitants

Grenoble in the heart of Europe
Grenoble in the heart of the Alps, a nice place to study...

www.ujf-grenoble.fr
Professional Bachelor Degree
Wireless Networks and Telecommunications

Since 2007
**Professional Bachelor Degree in Networks and Telecommunications**

**Option 1**
- 1 semester in Grenoble + 1 semester in your university

**Option 2**
- 1 semester in Grenoble + 1 semester industrial placement within a company or a research

- **All courses taught in English**
- + an introductory course on French language

jean-marc.thiriet@ujf-grenoble.fr
Professional Bachelor Degree in Networks and Telecommunications

1st SEMESTER (30 ECTS)
General courses
Français Langue Etrangère (30h)
Communication skills in English (20h)
Project Management (20h)
Fundamental scientific and technological courses
Interconnection of networks and their security (60h)
Telecommunications engineering (40h)
Specialised Scientific and technological courses
Cellular mobile communications (60h)
Mobile computer networks (50h)
Security of communications (60h)
Academic project

2nd SEMESTER (30 ECTS)
Academic project audit
Database management systems (30h)
Introduction to Internet Legislation (20h)
Industrial placement in a company or research laboratory

http://www-iut.ujf-grenoble.fr/wins

jean-marc.thiriet@ujf-grenoble.fr
Professional Bachelor Degree in Networks and Telecommunications

Open to students who have successfully completed the first two years of a bachelor’s degree, in the field of Computer Networks and Telecommunications, or in a relevant fields: e.g. Computer Engineering, Electrical Engineering, with some experience in computer networks.

http://www-iut.ujf-grenoble.fr/wins
Université Joseph Fourier

Licences Internationales

Since 2008 for Boston University
Since 2011 for our exchange partners
International Bachelor Program

http://dlst.ujf-grenoble.fr/

Chemistry
Biology
Physics
Computer Science & Mathematics
International Bachelor Program

http://dlst.ujf-grenoble.fr/

Chemistry and biology

<table>
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<th>Semester 2</th>
<th>Semester 3</th>
<th>Semester 4</th>
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Biology

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In English

Université Joseph Fourier
# International Bachelor Program


**Maths and computer science**

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**Physics**

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*In english*
BACHELOR SUMMER PROGRAM

June 3 - July 13, 2013

www.ujf-grenoble.fr/international/bachelor-summer-program
BACHELOR SUMMER PROGRAM

6 weeks June 3 - July 13

- Science: one course (60h)
- French language (45h)
- Lab/industry visits
- Cultural visits
- Mixing with French science students

www.ujf-grenoble.fr/international/bachelor-summer-program/
# BACHELOR SUMMER PROGRAM

## Physics

**Introduction to large scale facilities: probing matter with neutron and synchrotron radiation**

60 h Lecture / tutorials / lab work / ESRF and ILL visit

## Engineering

**Introduction to Physical computing**

60 h Lecture / tutorials / lab and company visits
### Engineering

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<thead>
<tr>
<th>Title</th>
<th>Introduction to Physical computing</th>
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<tbody>
<tr>
<td>Organisation</td>
<td>60 h Lecture / tutorials / lab and company visits</td>
</tr>
<tr>
<td>Prerequisites</td>
<td>Basics in programming and electronics</td>
</tr>
<tr>
<td>Topic</td>
<td>Computer Science and instrumentation: Physical computing focuses on interactions with the physical world using a variety of sensors and actuators that are controlled by microcontrollers and computers. This module introduces the technical aspects of development with the Arduino platform <a href="http://air.imag.fr/">http://air.imag.fr/</a></td>
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### Physics

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<tr>
<td><strong>Prerequisites</strong></td>
<td>Wave propagation and interferences, background in quantum mechanics is useful</td>
</tr>
<tr>
<td><strong>Topic</strong></td>
<td>Introduction to crystallography and other neutron and synchrotron techniques. Application to the study of structure in condensed matter and in other domains such as biology, earth science, …</td>
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BACHELOR SUMMER PROGRAM

French

Title | French language and civilisation
Organisation | 45 h classes + cultural visits
Prerequisites | none
Topic | French language for beginners and more advanced students

www.ujf-grenoble.fr/international/bachelor-summer-program/
BACHELOR SUMMER PROGRAM

6 weeks June 3 - July 13

- Science (60h)
- French language (45h)
- Lab/industry visits
- Cultural visits
- 14 students in 2012, 32 students in 2013

www.ujf-grenoble.fr/international/bachelor-summer-program/