BACHELOR DEGREE IN GEOMATICS

Web site http://lpsig.univ-lr.fr

Public : This Bachelor is designed to provide proper technical skills in Geographical Information Systems (GIS) and a specialization for students who have a two-year university degree in different domains (geography, environment, biology, earth sciences...).
This training is also for people enrolled in continuing studies and can be followed by people of different ages and with various academic levels.

Other prerequisites : strong motivation (high technological content, steady pace). Some experience in GIS will be appreciated and an interest in computer sciences is recommended.

Status : Students and trainees in continuing studies

Program length : One year

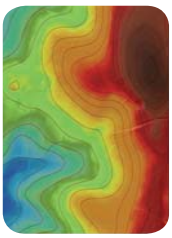
Start date : Beginning of September

Objectives : GIS , tools for geospatial information management, are present in many professional organizations: administration, territorial management , local authorities, consultancy groups specialized in environment, service companies... Mastering these tools has become vital.
This training main objective is to acquire strong technical skills and professional working methods which will guarantee a rapid and effective integration into the professional world. A high number of hours is consequently dedicated to practicals and supervised projects meeting professional demands. In addition, a 5-6 month internship enables students to strengthen their knowledge and therefore be ready for job hunting.

Professional integration :

Jobs : GIS technician, GIS specialist, GIS administrator, cartographer, GIS analyst…

Organizations : public entities (city halls, municipality communities, general councils...), environmental organizations (i.e natural parks), consulting companies specialized in geographical information systems, security intelligence services, software developing companies, organizations related to networks and energy (gas, water, electricity, wind energy, etc.)
Many job opportunities are referenced on the following French website : http://-georezo.net
Employment rate : 80% of graduates are employed within three months after the end of their training courses and all of them have a job within a six month period.



Applying :

Candidates go through an application procedure (files to be downloaded on the university bachelor website), interviews and tests.
Deadline for applying : June 1st of each year
Selection week : last week of June
Continuing studies: anticipated selection in April

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MODULE 1 : PROGRAMMING AND DATABASES (220 h)

Skills developed

- Basics of programming
- Database modelling and management
- Web programming and Web mapping: creation of websites with embedded maps

Technologies used

- VBA, Python for Qgis
- Access, MySQL, PostgreSQL/Postgis, Open Model Sphere
- HTML/CSS, PHP, Javascript,
- OpenLayers, DynMap, Qgis server & LizMap

MODULE 2 : GIS THEORY and PRACTICE (240 h)

Skills developed

- Basics in GIS theory and practice
- Teledetection and image processing
- Data and Metadata (acquisition, management, processing)
- Institutional context of geomatics :agencies, standards, data, legal bases
- Urban planning, EPCI, collectivities

Technologies used

- GIS Software: Arc Gis, QGis, Mapinfo
- Data processing tools : FME, IGNMAP, Spatial analyst, 3D analyst
-3D processing, photogrammetry using pictures from drones (Phantom 1 and 4)

MODULE 3 : CARTOGRAPHY (80 h)

Skills developed

- Cartography, geodesy, projections, GPS
- Cartographic semiology
- Thematic cartography: map creation

Technologies used

- GPS receivers and GPS tools: Trimble, Pathfinder, ArcPad
- Adobe Illustrator

MODULE 4 : PROJECTS (200 h)

Skills developed

- Tutored project (150h) meeting a company demand: needs, problems, objectives...
- GIS group project (about 1 week of field work)

Technologies used

- Project management with requirement specifications; problematic analyses.
- Field work with GPS acquisition, data integration

MODULE 5 : INTERNSHIP (5 months)

Skills developed

- Discovering GIS practices in professionnal environments
- Getting professional experience
- Expanding professional networks
- Visits of different agencies and companies using GIS throughout the academic year

MODULE 6 : LANGUAGES (36 h)

Skills developed

- Technical English; reading and listening comprehension

Head of program: Frédéric Pouget (**frederic.pouget@univ-lr.fr**)

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