Geomatics Master's Degree: Geographic Information System and Territorial Analysis (SIGAT) pathway

The majority of our courses are taught in French. We invite you to also have a look at the list of courses offered in English at Rennes 2.

The SIGAT Master's Degree trains future GIS (Geographic Information System) professionals. Students become proficient in geomatic tools and the concepts and methods applied to domains related to territorial issues (planning, urbanism, environment, mobility, energy, networks, geomarketing, etc.).

Objectives

The training content covers the geographic information processing chain (acquisition, management, analysis, representation and dissemination) and the management of geomatics projects (definition of needs, start-up, monitoring, assessment). SIGAT graduates will be able to understand and explain, in clear terms and adopting a scientific and technical approach, the challenges related to the implementation and deployment of GIS in different operational contexts.

Skills

- Proficiency in the production, analysis and valorization of spatial data: collection, conceptualization and management of a DBMS (database management system), cartography, web mapping, data-mapping, data visualization.

- Management of geomatics projects and development of observation, analysis and territorial monitoring systems

- Designing and implementing methods and spatial and statistical analysis decision-making tools (planning, environment, transport)

- Deployment and administration of GIS / SDI (Spatial Data Infrastructure) infrastructures

- Assistance to GIS users (advice, facilitation, training)

- Transversal knowledge of geomatics from conceptual and operational points of view (organizational, social and cultural dimensions)

- Knowledge and practice of web environments (web development, web mapping, programming)

Course Content

Training is spread over two years. Seventy per cent of the teaching is provided by a multidisciplinary team of lecturer-researchers, and 30% by external industry professionals from diverse fields. The course comprises theoretical, technical and methodological classes, professional workshops, speakers' conferences and two work placements.