Syllabus

Descrizione corso

Titolo insegnamento	Informatics
Codice insegnamento	47310
Titolo aggiuntivo	
Settore Scientifico-Disciplinare	NN
Lingua	Inglese
Corso di Studio	Corso di laurea magistrale in Sistemi agricoli intelligenti e sostenibili in aree montane
Altri Corsi di Studio (mutuati)	
Docenti	dr. Michele Torresani, Michele.Torresani@unibz.it https://www.unibz.it/en/faculties/agricultural-environmental-food-sciences/academic-staff/person/37414
Assistente	
Semestre	Secondo semestre
Anno/i di corso	1
CFU	1
Ore didattica frontale	6
Ore di laboratorio	4
Ore di studio individuale	15
Ore di ricevimento previste	3
Sintesi contenuti	da aggiungere
Argomenti dell'insegnamento	The Informatics course provides students with the fundamental knowledge required to understand the basic principles of data processing and management. In addition to introductory topics in computer science, the course covers the informatics components of the Geomatics curriculum, with a particular focus on the use of specialized software for map creation, geographic data management, and the processing of

	satellite and aerial imagery. Students will acquire practical skills in spatial analysis and remote sensing tools, learning how to effectively manage and represent geospatial data.
Parole chiave	Basic Informatics, Remote Sensing Software, Coding
Prerequisiti	NA
Insegnamenti propedeutici	No
Modalità di insegnamento	Hands-on exercises during class sessions
Obbligo di frequenza	No
Obiettivi formativi specifici e risultati di apprendimento attesi	Knowledge and understanding --> - use the most modern and intelligent technologies and information systems for practical application and for the management and creation of business processes - collaborate with other professionals in the fields of architecture, engineering and natural sciences - work in interdisciplinary, national and international teams Ability to apply knowledge and understanding --> Graduates of the Master SAM degree programme have a solid scientific and technical foundation that enables them to tackle and solve complex problems. Thanks to their scientific and technical training in the fields of agriculture, economics and management, graduates are able to develop analyses and plans for the development and management of farms in mountain regions, taking into account their specific characteristics and multifunctionality (ecosystem services). In these specialist areas, graduates are able to coordinate interdisciplinary teams in the agricultural sector. The assessment of success (oral and written exams, seminar reports) and exercises are designed in such a way that graduates must demonstrate that they have mastered the working tools, the methods learned and a critical and independent way of working. Autonomy of judgement --> - planning activities and strategies based on predefined objectives, taking into account timescales and methods

	Communication skills -->
Graduates will be able to work professionally in one or more foreign languages. Compulsory and elective courses are taught in English. In addition, some elective courses may be offered in Italian or German. In accordance with unibz's trilingual policy, the unibz Language Centre offers extracurricular courses (levels A1-C1) in Italian and German.
Graduates will be able to communicate fluently with other professional groups with whom they work and will be able to participate in European projects with foreign partners thanks to the international orientation of the Master's programme. Written and oral communication skills are promoted in seminars, excursions, exercises and teaching activities, which include the preparation of reports and written documents and their oral presentation in English and, where applicable, in Italian and German in elective subjects. The acquisition and assessment/verification of the above communication skills also takes place through the writing of the final thesis and its discussion in English. The master's degree programme also promotes the acquisition of additional language skills in German and Italian. This should enable graduates to successfully enter the international job market (e.g. Austria-Switzerland-Italy-Germany). Learning skills -->
Graduates will be able to manage complex projects thanks to the specialist knowledge acquired during their studies. They will be able to continuously expand the specialist knowledge acquired during their studies and keep it up to date. They will learn to use the most modern methods to be able to competently carry out analysis, project planning and management measures in their professional lives. Graduates will be able to use various IT systems to further their cultural and professional development. They will also be able to choose the methods and training paths best suited to their cultural and professional development. Graduates will be able to manage complex projects thanks to the specialist knowledge acquired during their studies. They will be able to continuously expand the specialist knowledge acquired during their studies and keep it up to date. They will learn to use the most modern methods to be able to competently carry out analysis, project planning and management measures in their professional

	lives. Graduates will be able to use various IT systems to further their cultural and professional development. They will also be able to choose the most suitable methods and training paths for their cultural and professional development. Learning skills are encouraged throughout the degree programme. Particular attention is paid to individual study, especially in the completion of group work on the proposed topics. These skills are enhanced during compulsory classes, which include group work, and subsequently in the preparation of the final thesis. Learning progress is assessed regularly during the courses and during the writing of the final thesis. In particular, this practice-oriented training involves working in small groups (3-5 students) on a joint project (e.g., a plan for the development of farms in mountain areas) from the initial stages (development of objectives and measures, collection of available data) to cooperation with various stakeholders (e.g., public administration, mountain agriculture advisory centre, farmers' association), which also includes communication activities for agriculture and society. The projects are carried out under the supervision of two or more teachers, with an exchange between students and private companies and/or the public authorities concerned. Learning ability is assessed through continuous assessment during the learning units and in the preparation of the final thesis.
Obiettivi formativi specifici e risultati di apprendimento attesi (ulteriori info.)	
Modalità di esame	Students will present projects based on the theoretical concepts introduced during the lectures
Criteri di valutazione	Quality of the project implementation (accuracy, completeness, and technical soundness) Innovation and originality of the proposed project Consistency and coherence of the project with the topics covered during the course
Bibliografia obbligatoria	NA
Bibliografia facoltativa	
Altre informazioni	
Obiettivi di Sviluppo	Sconfiggere la povertà, Utilizzo sostenibile della terra, Lotta contro

Sostenibile (SDGs)	il cambiamento climatico, Buona salute