

<p><b>MODULE</b> Language Technologies and Ontologies</p>	<p><b>ECTS Credits</b> 10</p>
<p><b>Type, and timing within the curriculum</b> Elective, 3<sup>rd</sup> year of study</p>	<p><b>Language(s) of instruction</b> Basque, Spanish, English</p>
<p><b>Skills that the student will acquire with this subject</b></p> <p><b>BASIC SKILLS:</b></p> <p><b>CB2</b> - Learn how to apply their knowledge to their work or vocation in a professional way and possess skills that can be demonstrated through the development and defense of arguments and through problem solving within their area of study.</p> <p><b>CB3</b> – Acquire the ability to gather and interpret relevant data (normally within their area of study) in order to make judgements that include a reflection on relevant issues of a social, scientific or ethical nature.</p> <p><b>CB4</b> – Be able to transmit information, ideas, problems and solutions to both specialized and non-specialized audiences.</p> <p><b>CB5</b> - Develop the learning skills necessary to undertake further studies with a high degree of autonomy.</p> <p><b>GENERAL SKILLS:</b></p> <p><b>CG4</b> - New forms of communication (digital): Reflectively and critically use different digital and/or audiovisual media and aids that make it possible to reach multiple audiences effectively, in order to achieve the proposed objectives.</p> <p><b>CG6</b> - Virtual collaboration: Work collaboratively and constructively in virtual settings – both in their own context and in contexts pertaining to different cultures – in order to achieve the proposed objectives.</p> <p><b>SPECIFIC SKILLS:</b></p> <p><b>CE4.</b> Analyze and evaluate the main contributions of people and communities through the centuries in different areas of the humanities (philosophy, art, literature, music, anthropology, etc.) in order to generate ideas and proposals that make possible the full development of people and communities in the global digital society.</p> <p><b>CE5.</b> Use and master oratory, argumentation, body language and other means, tools and aids to communicate, form, report on, and disseminate knowledge effectively.</p>	

### Learning outcomes the student will acquire with this subject

- Become familiar with language technologies and understand the interaction of interactive systems such as ASR and TTS.
- Understand new forms of communication from a reflective and critical perspective in order to be able to communicate safely and ethically through any technological tool with different discourses and languages.
- Work in person and virtually with different experts and professionals in digital studies (Engineers, Computer Scientists, Sociologists, Anthropologists, etc.) to make more holistic proposals.
- Effectively communicate the knowledge acquired to other sectors that are not experts in the field in order to bring advances in digital technologies to society.

### Teaching-learning methodology and its relationship to the skills the student must acquire

ME1. Master class  
ME2. Problem-based learning  
ME3. Case analysis

### Training activities

#### ACTIVITY-HOURS-FORMAT (% IN-PERSON)

In-person activities (75 hours, 30%):

- AP1. Development, writing and presentation of individual work, 30 hours.
- AP4. Viewing and analyzing videos, 5 hours.
- AP6. Presentation of theory and associated concepts, 10 hours.
- AP12. Performance of field work through trips and internships, 10 hours.
- AP17. Participation in debates, 5 hours.
- AP19. Problem-focused study and work, 15 hours.

Non-in-person activities (175 hours, 70%):

- ANP1. Autonomous study and work, 125 hours
- ANP2. Group study and work, 50 hours

### Skills acquisition assessment

#### EVALUATION CATEGORIES AND WEIGHTS

EV2. Individual work: 40%

EV3. Exhibitions and presentations: 40%.

EV5. Attendance at and active participation in training activities: 20%.

### Summary of course content

- Introduction to language technologies: history of the semantic web, communication tools (ASR, TTS), and language processing.
- Fundamentals of language technologies: understanding of the ontologies and expertise of human language technologies (information extraction, ontologies, ontology learning, the population of ontologies, metadata mapping, tools and resources for the semantic web) that facilitate mechanisms and tools for the implementation and expansion of new paradigms.