

<p style="text-align: center;"> Module type Teaching-learning, Languages, Experimental sciences, Mathematics, Social sciences, Technology, Musical, plastic and visual education, Physical education </p> <p style="text-align: center;"> Course title MAT.2.5 Experimentation in natural and social environments </p>	<p style="text-align: center;"> ECTS credits 10 Disciplinary Didactic Training </p>
<p> Language(s) of instruction English </p>	<p style="text-align: center;"> Format In- Person </p>
<p> Skills that the student will acquire with this subject -Basic skills: CB1 – Demonstrate that they possess and understand knowledge in an area of study that branches out from general secondary education, and that usually corresponds to a level that, while supported by advanced textbooks, also includes aspects that involve knowledge from the vanguard of their area of study. CB5 - Develop the learning skills necessary to undertake further studies with a high degree of autonomy. </p> <p> -General skills: CG4. Develop divergent thinking in different situations in an open and esthetic way and promote the transformation of this context by demonstrating commitment to educational transformation. CG2. Students will accept their own weaknesses and strengths, manage tools and resources to respond to complex situations, and be aware that personal and professional development takes place throughout life. </p> <p> -Specific skills: CE7. Be familiar with the curricular areas of Primary Education, the interdisciplinary relationships among them, evaluation criteria, and the body of didactic knowledge about teaching and learning procedures that are developmentally appropriate for 6- to 12-year-old children. </p>	

Learning outcomes the student will acquire with this subject

- Understand the impact we have in a teaching-learning context and implement different alternatives to respond and draw conclusions.
- Analyze and understand the impact of change on one's self and be able to manage emotions, and emotions involved in change.
- Identify key areas for learning and experimentation, both in and outside the classroom.
- Use tools and resources to address complex situations

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

- ✓ ME4. Cooperative learning
- ✓ ME5. Challenge-based learning
- ✓ ME6. Project-based learning

Training activities

Face to face format

Face to face activities (30%):

- ✓ AP1. Development, writing and presentation of individual work - 10 hours
 - ✓ AP2. Development, writing and presentation of group work - 20 hours
 - ✓ AP4. Viewing and analyzing videos - 10 hours
 - ✓ AP5. Workshops aimed at acquiring skills - 5 hours
 - ✓ AP6. Presentation of theory and associated concepts - 10 hours
 - ✓ AP14. Real visits/experiences - 5 hours
 - ✓ AP15. Seminars - 10 hours
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- ✓ AP16. Case studies – 5 hours

Non-in-person activities (70%):

- ✓ ANP1. Autonomous study and work - 105 hours
- ANP2. Group study and work - 70 hours

Skills acquisition assessment

✓ In-person format
PEV01 Quality of individual work - 40%
PEV02 Quality of group work - 40%
PEV04 Attendance and active participation in training activities - 20%

✓ Non-in-person format
SEV01 Quality of individual work - 50%
SEV02 Quality of group work - 50%

Summary of course content

- Origin and development of the Experimental and Social Sciences: the whys and wherefores.
- Curriculum design for Experimental and Social Sciences and Mathematics: objectives, content and evaluation criteria.
- Learning experimental science, social science and science of technology (Science, Technology and Society): the role of science and technology in solving social problems.
- The scientific and didactic conceptions of teachers in relation to teaching sciences and mathematics.
- Children's ideas and learning sciences and mathematics.
- Language in science and mathematics classes.
- Research resources in the science classroom.
- Didactic resources for the science and technology classroom.
- Didactic models for teaching sciences and mathematics.
- The Area of Knowledge of the Environment and Mathematics: curriculum, methodological orientations and didactic resources.