

**COURSE DATA****Data Subject**

Code	40538
Name	Additional training for the specialties of technology and industrial processes
Cycle	Master's degree
ECTS Credits	6.0
Academic year	2023 - 2024

Study (s)

Degree	Center	Acad. year	Period
2024 - Master's Degree in Secondary Education	Faculty of Teacher Training	1	Annual

Subject-matter

Degree	Subject-matter	Character
2024 - Master's Degree in Secondary Education	46 - Additional training for the specialties of technology and industrial processes	Optional

Coordination

Name	Department
LLOPIS ALONSO, FRANCISCO	245 - Chemical Engineering

SUMMARY

This course deals with the study of the Spanish education system and its development and regulations. The organization of schools in secondary education within the specialty of Technology and Vocational Training. The secondary curriculum, educational and cultural value of Technology. We will work to deepen and reformulation of the contents of the materials in the context of the curriculum of high school, contemplating his interest and relevance and implications in different areas, and mainstreaming in the areas of specialty



PREVIOUS KNOWLEDGE

Relationship to other subjects of the same degree

There are no specified enrollment restrictions with other subjects of the curriculum.

Other requirements

COMPETENCES (RD 1393/2007) // LEARNING OUTCOMES (RD 822/2021)

2024 - Master's Degree in Secondary Education

- Conocer los contenidos curriculares de las materias relativas a la especialización docente correspondiente, así como el cuerpo de conocimientos didácticos en torno a los procesos de enseñanza y aprendizaje respectivos. Para la formación profesional se incluirá el conocimiento de las respectivas profesiones.
- Planificar, desarrollar y evaluar el proceso de enseñanza y aprendizaje potenciando procesos educativos que faciliten la adquisición de las competencias propias de las respectivas enseñanzas, atendiendo al nivel y formación previa de los/as estudiantes así como la orientación de los mismos, tanto individualmente como en colaboración con otros docentes y profesionales del centro.
- Buscar, obtener, procesar y comunicar información (oral, impresa, audiovisual, digital o multimedia), transformarla en conocimiento y aplicarla en los procesos de enseñanza y aprendizaje en las materias propias de la especialización cursada.
- Diseñar y desarrollar espacios de aprendizaje con especial atención a la equidad, la educación emocional y en valores, la igualdad de derechos y oportunidades entre hombres y mujeres, la formación ciudadana y el respeto de los derechos humanos que faciliten la vida en sociedad, la toma de decisiones y la construcción de un futuro sostenible
- Adquirir estrategias para estimular el esfuerzo del estudiante y promover su capacidad para aprender por sí mismo y con otros, y desarrollar habilidades de pensamiento y de decisión que faciliten la autonomía, la confianza e iniciativa personales.
- Diseñar y realizar actividades formales y no formales que contribuyan a hacer del centro un lugar de participación y cultura en el entorno donde esté ubicado; desarrollar las funciones de tutoría y de orientación del alumnado de la etapa o área correspondiente, de manera colaborativa y coordinada; participar en la evaluación, investigación y la innovación de los procesos de enseñanza y aprendizaje.
- Conocer y analizar las características históricas de la profesión docente, su situación actual, perspectivas e interrelación con la realidad social de cada época.
- Informar y asesorar a las familias acerca del proceso de enseñanza y aprendizaje y sobre la orientación personal, académica y profesional de sus hijos.



- Adquirir los conocimientos y estrategias para poder programar las áreas, materias y módulos que tengan encomendados.
- Conocer los procedimientos de tutoría del alumnado, dirección y orientación de su aprendizaje y apoyo en su proceso educativo.
- Conocer las estrategias y programas generales de orientación educativa, académica y profesional del alumnado.
- Students should apply acquired knowledge to solve problems in unfamiliar contexts within their field of study, including multidisciplinary scenarios.
- Students should be able to integrate knowledge and address the complexity of making informed judgments based on incomplete or limited information, including reflections on the social and ethical responsibilities associated with the application of their knowledge and judgments.
- Students should communicate conclusions and underlying knowledge clearly and unambiguously to both specialized and non-specialized audiences.
- Students should demonstrate self-directed learning skills for continued academic growth.
- Working in team and team, and developing attitudes of participation and collaboration as an active member of the educational community.
- It generates innovative and competitive proposals in professional activity and in educational research.
- It is effective to communicate in both verbal and nonverbal terms.
- Make effective and integrated use of information and communication technologies.

LEARNING OUTCOMES (RD 1393/2007) // NO CONTENT (RD 822/2021)

- Know the formative and cultural value of the corresponding subjects of the Technology and Industrial Processes specialty and the contents that are studied in the respective teachings.
- Know the history and recent developments of the subjects and their perspectives in order to transmit a dynamic vision of them.
- Know contexts and situations in which the various curricular contents are used or applied.
- Knowing how to apply the knowledge acquired and being able to solve problems in new or little-known environments within broader (or multidisciplinary) contexts related to their area of study.
- Being able to integrate knowledge and face the complexity of formulating judgments based on information that, being incomplete or limited, includes reflections on the social and ethical responsibilities linked to the application of their knowledge and judgments.
- Knowing how to communicate their conclusions and the ultimate knowledge and reasons that support them to specialized and non-specialized audiences in a clear and unambiguous way.



- Possess the learning skills that allow you to continue studying in a way that will be largely self-directed or autonomous.
- Plan, develop and evaluate the teaching and learning process, promoting educational processes that facilitate the acquisition of the competences of the respective teachings, taking into account the level and previous training of the students, as well as their orientation, both individually and in collaboration with other teachers and professionals from the high school.
- Search, obtain, process and communicate information (oral, printed, audio-visual, digital or multimedia), transform it into knowledge and apply it in the teaching and learning processes in the subjects of the specialization studied.
- Acquire the knowledge and strategies to be able to program the areas, subjects and modules of their teaching responsibility.
- Design and develop learning spaces with special attention to equity, emotional education and values, equal rights and opportunities between men and women, citizen training and respect for human rights that facilitate life in society, taking decision-making and building a sustainable future.
- Acquire strategies to stimulate the effort of the students of the corresponding stage or area, and promote their ability to learn by themselves and with others, and develop thinking and decision-making skills that facilitate autonomy, confidence and personal initiative.
- Design and carry out formal and non-formal activities that contribute to making the high school a place of participation and culture in the environment where it is located.
- Develop the functions of tutoring and orientation of the students of the corresponding stage or area, in a collaborative and coordinated manner; inform and advise families about the teaching and learning process and about the personal, academic and professional orientation of their children.
- Participate in the evaluation, research and innovation of teaching and learning processes.
- Know and analyze the historical characteristics of the teaching profession, its current situation, perspectives and interrelation with the social reality of each era.
- For the field of professional training, to know the evolution of the world of work, the interaction between society, work and quality of life, as well as the need to acquire adequate training to adapt to the changes and transformations that the professions may require.
- Know the set of theories and techniques that allow the practical use of scientific knowledge, adapted to teaching.

DESCRIPTION OF CONTENTS



1. History and Epistemology of Technology area.

History and Evolution of Technology.

Review of major developments. Current status and future challenges.

Technology and society (social and cultural impact).

Contribution of Technology in the development of people.

2. Curriculum subjects of the specialty

Technology in Secondary level. Consellería decrees.

Cultural and educational value.

Access to University.

3. Mainstreaming subjects

Application of Technology in various fields.

Necessary skills and complementary technology.

Interdisciplinary contribution in the Technology area.

Environmental education. Education for peace. Health education, etc ...

4. Professor of Technology subject

Teacher Competencies. Access to High School teacher's job.

The secondary center: Types and organization. Laboratories.

5. History and Development of Vocational Training

Old vocational training. Actual vocational training.

Professional families: LOGSE. versus LOE cycles.

Current status and future challenges Society and Vocational Training.

Need for qualified vocational training.

6. The curriculum in the Vocational Training Modules

Professional qualifications (INCUAL). Curricula for the training courses.

7. Professor of Vocational Training.

Teacher Competencies. The Integrated Vocational Training Centre. Access to the work of Professor Professional Modules. Workshops: Establishment and maintenance.

**8. Vocational Guidance**

Training in Working Centre (FCT). Tutor functions. Relations with the Company.
Monitoring and Evaluation Practices

9. Safety and health at work.

Occupational health: the management of risk prevention. Work organization.

WORKLOAD

ACTIVITY	Hours	% To be attended
Theoretical and practical classes	48,00	100
Study and independent work	82,00	0
Preparation of evaluation activities	20,00	0
TOTAL	150,00	

TEACHING METHODOLOGY

Depending on the skills, learning objectives and content is used several methods: narrative methodology, cooperative work, group discussion, text analysis, practical activities and individual and group application, etc.. The methodology will be participatory and dynamic in order to promote the involvement and participation of pupils and students in classrooms, including teacher explanations to clarify the theoretical assumptions. Discussion will be used where appropriate and develop practical work, exhibitions and different projects related to the teaching profession and to the discussion of the subject.

EVALUATION

The evaluation of the acquisition of competences by students will be done by combining different types of information, linked to the different activities that students will develop in the subject. The evaluation procedures will be:

Minimum requirements: Assistance and active participation in face-to-face sessions is an essential requirement (at least 80%). Those students whose attendance is lower will be classified as Suspended in the 1st Call.

For the assessment of the different aspects of the subject, the following will be taken into account:

Activities: The classroom activities will grant 40% of the final grade. It includes oral presentations, active involvement in learning, debates, reflections on the concepts raised, participatory attitude, punctuality. This part of the subject has the character of NOT recoverable.



Reports: Students will develop practical or theoretical reports of mandatory nature of parts of the subject. The value of them will be 30% of the final grade. The work delivered out of date, the teacher will admit them by own will, not by obligation. In this case, the grade will be 5.0 (although the work would have deserved a higher grade if it was submitted on time).

Exam: A final evaluation test will be carried out that will incorporate the fundamental knowledge of the subject. The test will integrate essay and objective questions. The value of this test will be 30% of the final grade.

Global Qualification: Each of the professors who teach the subject will issue a rating of the activities and reports assessed. The overall score will result from a weighted average based on your dedication in hours. This average can only be done if the students have followed the subject regularly, according to the minimum requirements already commented.

Students who have not passed the 1st Call in the subject, for not meeting the required face-to-face attendance or not having submitted the reports, may be submitted to a final test of the whole subject, and perform a theoretical-practical exam on the date established in the school calendar. In this test you will have to reach a minimum grade of 5.0 and in the final grade the average of the reports delivered will also be taken into account.

The subject is considered overcome when the mark obtained is equal to or greater than 5 (over 10). In any case, the evaluation system will be governed by the Reglament d'Avaluació i Qualificació de la Universitat de València per a Títols de Grau i Màster (<http://links.uv.es/j0Im3ec>).

REFERENCES

Basic

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Additional

- www.tecno12-18.com
www.catedu.es/aratecno/
www.aulataller.es/
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