



AGREEMENT ON THE MODIFICATION OF THE ORGANISATION AND INTEGRATION OF THE GENERIC OUTCOMES IN THE OFFICIAL DEGREES OF THE UNIVERSITAT POLITÈCNICA DE VALÈNCIA

(Approved by the Governing Council on 25 April 2024)

EXPLANATORY MEMORANDUM AND JUSTIFICATION

On 21 July 2002, the Governing Council approved the agreement on the organisation and integration of generic outcomes in the official degrees of the Universitat Politècnica de València. This agreement has been widely disseminated and taken on board by the university community, and has been implemented in the creation and modification of UPV degrees since then. The simplification of the generic outcomes and the definition of more concrete learning outcomes aligned with Royal Decree 822 are the fundamental aspects of this competency framework, which has already been used in the definition of the UPV teaching guides.

However, as a consequence of the continuous improvement derived from the accreditation processes that some of the degree programmes have undergone over the last year, the need has been detected to make some minor adjustments to it. These adjustments concern the definition of some of the initially defined learning outcomes – without altering the defined competencies – and their aim is to meet the requirements of international agencies; they delimit and define more precisely the learning outcomes that students in the different degree programmes are expected to achieve in the course of their studies.

Changes to the previous framework are highlighted in italics for better identification.

DESCRIPTION

The competencies included in these regulations are cross-cutting in nature, since they are established for any official degree of the Universitat Politècnica de València, regardless of its scope, duration and level. They are classified as skill competencies and their integration in a degree must favour the acquisition of other competencies specific to the degree.

The competencies are defined according to five strategic educational objectives and are aligned with the social, environmental, innovation, quality and progress values of the Universitat Politècnica de València.

These values must also be present in the official degrees, as an integral part of the students' education. It is therefore expected that all UPV graduates will be characterized by their social and environmental commitment, their capacity for innovation, collaboration and knowledge transfer, as well as their ability to continue to make progress and evolve in their professional practice.



These regulations contain the minimum requirements for the inclusion of the generic outcomes in the curricula of the official degrees of the Universitat Politècnica de València.

Firstly, the competencies are defined with a brief description of the educational framework. To facilitate the understanding of these competencies, each one is accompanied by the learning outcomes that students are expected to have achieved by the end of their studies.

These outcomes must meet social needs and changes, as stated in Royal Decree 822/2021, on the organisation of university education and the procedure for quality assurance, as well as the present and future professional development of our university graduates.

In addition, they are aligned with the competencies in which the students of official degrees with the international seal of quality SIC and ABET must be trained.

Secondly, these regulations include the components for the organisation and integration of generic outcomes in the official curricula of the Universitat Politècnica de València.

I. DEFINITION OF THE GENERIC OUTCOMES OF THE OFFICIAL DEGREES OF THE UNIVERSITAT POLITÈCNICA DE VALÈNCIA

I.1. SOCIAL AND ENVIRONMENTAL COMMITMENT

Acting with ethics and professional responsibility in the face of social, environmental and economic challenges, taking democratic principles and values, and the Sustainable Development Goals as well, as a reference.

Social and environmental commitment in professional practice must be based on sound ethical principles, on commitment and responsibility, taking into account the specific legal framework of the profession in question. This competency also refers to empathetic and responsible action in the face of social, environmental and economic challenges, taking into consideration the fundamental democratic values of today's society as well. It involves analysing and assessing the social and environmental impact of technical solutions and professional practices, and acting responsibly, ensuring and promoting respect for diversity, fundamental rights and equal opportunities. All of this must be interpreted within the global framework of the UN's Sustainable Development Goals.



Graduates of the UPV's official degrees must show they are capable of...

- Recognize ethical consequences of decisions to be taken in a specific situation, considering the impact on society and responsibility in professional practice.
- *Make informed judgments considering the impact of solutions, in the field of the discipline, in global, economic, social and environmental contexts.*
- Demonstrating awareness of respect for diversity and the principles of universal accessibility and design for all people.
- *Design, develop and implement solutions in the field of the discipline that respond to social demands, taking into account the Sustainable Development Goals and global, cultural and economic factors.*

I.2. INNOVATION AND CREATIVITY

Proposing creative and innovative solutions to complex situations or problems, specific to the field of knowledge, in order to meet diverse professional and social needs.

Innovation means the generation, transformation and implementation of an idea, a procedure or an attitude to meet different needs. It can involve both the creation of something new and the use in a new way of something that was already known. It requires accepting what is new and different; identifying needs and opportunities for improvement; coping with difficulties and overcoming them; managing uncertainty; and showing tolerance to frustration, personal initiative and creativity.

Graduates of the UPV's official degrees must prove they are capable of...

- Identifying new challenges, projects or opportunities for improvement within their discipline, aligned with future trends and advances.
- Proposing creative solutions that satisfactorily meet the real needs and problems of society.
- Critically and constructively evaluating the advantages and opportunities of different solutions to the same problem.
- Demonstrating an entrepreneurial attitude in the design, development and implementation of solutions that represent a novelty or advance within their discipline.

I.3. TEAMWORK AND LEADERSHIP

Collaborating effectively in work teams, assuming responsibilities and leadership roles and contributing to collective improvement and development.

Collaborating in different contexts, especially in project development, requires effective management of relationships between team members in order to achieve common objectives – exchanging information, assuming responsibilities, resolving difficulties and contributing to collective improvement and development. Working effectively as a team requires establishing operating rules and common objectives to be achieved.

Graduates of the UPV's official degrees must show they are capable of...



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- Function effectively on a team whose members together provide leadership and create a collaborative and inclusive environment in the organization and coordination of work.
- Identify roles and skills to operate in multidisciplinary teams with different professional profiles.
- Collaborate proactively in the development of work, setting goals and meeting objectives.
- Help to find solutions to challenges or projects, showing empathy and assertiveness when sharing ideas, reflections and arguments within the framework of collaborative work.

I.4. EFFECTIVE COMMUNICATION

Communicating effectively, both orally and in writing, adapting to the characteristics of the situation and the audience.

The transfer of ideas, knowledge or information involves communicating effectively, using verbal and non-verbal language, to interpret and exchange meanings, with a form of action determined by the type of audience. It means the ability to understand concepts and ideas and express them clearly, taking into account an inclusive and diverse context.

Graduates of the UPV's official degrees must show they are capable of...

- Structuring discourse to facilitate that the objectives, actions and/or results of their work be understood.
- Developing professional texts or scientific-technical reports according to the conventions of their discipline.
- *Communicate and argue effectively, adapting the organization of content and the use of language, verbal and nonverbal, to different situations and/or a range of audiences.*
- Demonstrating proficiency in digital communication by using a variety of support media adapted to the situation and the audience.

I.5. RESPONSIBILITY AND DECISION-MAKING

Acting autonomously in learning, making informed decisions in different contexts, making judgements based on experimentation and analysis, and transferring knowledge to new situations.

The ability to continue to make progress and evolve requires autonomous learning. Being an autonomous learner means that the person becomes aware of what they know and what they do not know, how they learn, how they manage and control their learning, and how all of this is expressed in the actions they take and the decisions they make. It means, therefore, to continue to learn autonomously, and it enables the person to be responsible, persistent and self-critical.

Graduates of the UPV's official degrees must show they are capable of...

- *Identify, formulate and solve complex problems autonomously, applying the principles of the discipline.*



- *Develop and conduct practical or experimental work and research, interpreting data and drawing conclusions based on the principles of the discipline.*
- *Acquire and apply new knowledge as needed, using appropriate learning and time management strategies.*
- Effectively applying techniques related to literature searching and the use of reliable data sources or other information systems.

II. ORGANISATION OF THE GENERIC OUTCOMES IN THE OFFICIAL DEGREES OF THE UNIVERSITAT POLITÈCNICA DE VALÈNCIA

II.1. The generic outcomes will be included in the official verification report of the degree, both for new degrees and when modifying existing degrees. Each degree programme will define the subjects of the curriculum that will work on each of the competencies.

The learning outcomes will also be included in the verification report, distributed conveniently among its subjects.

II.2. In accordance with what is defined in the verification report, the generic outcomes will be assigned to a set of subjects of the degree curriculum that will act as a control point in the evaluation of the learning outcomes. The same subject may be a control point for one or more competencies.

A subject is a control point for one or more learning outcomes associated with the competency. The degree must include as many control point subjects as necessary to guarantee a sufficient evaluation of the competencies in terms of learning outcomes, and always at least three or more in Bachelor's degree studies, and two or more in Master's degree studies.

Curriculum subjects that can be control points are those corresponding to basic credits, compulsory credits and specialisation credits. Elective credits may supplement the evaluation. In any case, it must be guaranteed that, regardless of the path or specialisation taken, students will obtain sufficient evaluation in all of the generic outcomes and their outcomes at the end of their studies.

Subjects are assigned to competencies and learning outcomes in the design of the degree and will be reflected in the VERIFICA-UPV application.

The Degree Academic Committee will oversee the coordination and compliance with the degree report. At the request of the Committee, the assignment of competencies and outcomes to subjects may be modified as long as what is defined in the degree report at subject level is maintained. Modifications will be reflected in the management report of the degree in the corresponding year.

II.3. As with the rest of the competencies of the degree, the generic outcomes will also be indicated in the corresponding teaching guides.



In order to favour the quality accreditations of the degrees, the learning outcomes, of section I, assigned to the subject, will also be reflected in the teaching guide.

Regardless of the outcomes included in the degree programme's verification report, each degree programme may expand the learning outcomes associated with the generic outcomes to reinforce the acquisition of skills according to criteria related to its educational and quality objectives. This expansion may be reflected in the teaching guides of the degree programme.

II.4. The evaluation of a generic outcome will use two values: *satisfactory* or *in the process of acquisition*.

Students will receive the grade in the student outcome following the evaluation criteria defined in the teaching guide.

Students will have the necessary resources to know the evaluation received during their official studies.

II.5. The Bachelor's Thesis will also be part of the competency evaluation and consistent with the nature of the thesis. All of the degrees of the Universitat Politècnica de València will evaluate the acquisition of the generic outcomes of the students both in the preparation and defence of the Bachelor's Thesis, according to the Academic Committee.

II.6. In official Bachelor's and Master's degrees, the evaluation of generic outcomes will be reflected as an informative annex to the student's records.

The information will consist of the degree control point subjects, ordered by competency, in which the student has obtained a satisfactory grade. The Bachelor's Thesis will also be included in the corresponding competency passed satisfactorily, as well as the evaluation obtained in academic exchange.

The record will also reflect the evaluation received in university activities that have led to credit recognition in university degree studies provided for in Article 10.9.c of Royal Decree 822/2021, or evaluations received in academic exchange.

III. ADAPTATION OF THE DEGREES

The new official degrees of the Universitat Politècnica de València must comply with this adaptation in the development phase of the report from their approval by the corresponding bodies of the UPV.

For existing degree programmes, the Academic Committees are urged to review the curricula and define the necessary actions to integrate the generic outcomes and their learning outcomes in the corresponding subjects and courses. The proposals and actions will be reflected in the degree management reports.



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In addition, a “guide for the application of the competency framework to engineering degrees at the Universitat Politècnica de València” is defined, which must be adopted in those engineering degrees that opt for certification by the ABET engineering committee.

These regulations will come into force on the day following their publication in the *Butlletí Oficial de la Universitat Politècnica de València* (BOUPV), and will take effect from the 2024-2025 academic year.