

**AGREEMENT ON THE ORGANISATION AND INTEGRATION OF GENERIC STUDENT  
OUTCOMES IN THE OFFICIAL (MASTER & BACHELOR) DEGREES OF THE  
UNIVERSITAT POLITÈCNICA DE VALÈNCIA  
(Approved by the Governing Council on 21 July 2022)**

**EXPLANATORY MEMORANDUM AND JUSTIFICATION**

Higher Education must facilitate the active, committed and responsible learning of its students, providing a rapid and flexible response to the demands of an education that requires professionals capable of leading significant transformations to collectively build an advanced, socially equitable and environmentally sustainable society.

The UPV generic student outcomes include the skills, behaviours, attitudes, motivations, values and knowledge necessary for people to perform successfully in a dynamic professional context.

In this regard, the Universitat Politècnica de València's generic student outcomes project was launched in the 2014-2015 academic year on an experimental basis and was formally implemented in the 2015-16 academic year. Its main objective was to accredit a core competency profile for graduation in any of the official degrees taught at the UPV, therefore a strategy of design, planning and systematic evaluation of these generic student outcomes was established.

With this starting point, the UPV's 13 GSO's were defined, taking into account the most important national and international regulations and guidelines at that time, as well as the extensive scientific literature on them.

By May 2022, the involvement of the university community in the generic student outcomes project was complete, as well as the transparency of the information related to the outcome design in each degree programme, annual implementation in the teaching guides and supervision for the students.

The effort made since 2014 by all actors involved in the integration of the generic student outcomes at all levels of university life has helped UPV graduates achieve the knowledge and skills specific to their degree, as well as the necessary skills to develop successfully in an educational environment that focuses on student-centred learning.

However, the evolution of the starting frameworks and the accumulated experience indicate that a review of the competency framework is necessary. The purpose of this review is, firstly, to be more explanatory in the educational orientation regarding the objectives of each competency and the outcomes that students should achieve. Secondly, for this orientation to bring the generic student outcomes closer to the current quality standards set by the Ministry of Universities in Royal Decree 822/2021, which focuses on democratic principles and values and the Sustainable Development Goals, as well as on national and international accreditations.

The review presented in this instruction maintains the spirit and foundations of the 2014 framework, but involves a reordering and, in some aspects, a simplification, which should allow the Universitat Politècnica de València to continue advancing in its initial purpose.

## DESCRIPTION

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

The generic outcomes 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 identified by their social and environmental commitment, their capacity for innovation, collaboration and transfer, as well as their ability to continue to advance and evolve in their professional practice.

This instruction contains the minimum requirements for the inclusion of the generic student outcomes in the curricula of the official degrees of the Universitat Politècnica de València.

Firstly, the generic outcomes are defined with a brief description of the educational framework. To facilitate the understanding of these outcomes, each one is accompanied by the learning outcomes that students are expected to have acquired 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 outcomes in which the students of official degrees with international seals of quality (EURACE, EUROINF and ABET) must be trained.

Secondly, the instruction includes the components for the organisation and integration of generic student outcomes in the official curricula of the Universitat Politècnica de València.

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

### I.1. SOCIAL AND ENVIRONMENTAL COMMITMENT.

To act 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 a reference.

Social and environmental commitment in professional practice must be based on sound ethical principles, commitment and responsibility, considering 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, as well as the fundamental democratic values of today's society. 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. With all of this understood within the global framework of the sustainable development goals.

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

- Assessing the ethical consequences of the decisions to be made in a specific situation, considering the impact on society and responsibility in professional practice.
- Making informed judgements on the treatment of sustainability and climate change.
- Demonstrating awareness of respect for diversity and the principles of universal accessibility and design for all people.
- Contributing to the design, development and implementation of solutions that meet social demands, taking the Sustainable Development Goals as a reference.

These outcomes are aligned with the core competency in Ethical, Environmental and Professional Responsibility of the current UPV framework and with the outcomes of Critical Thinking, Design and Planning or Knowledge of Contemporary Problems, among others. I.2. INNOVATION AND CREATIVITY.

Propose 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 of something already known in a different way. It requires acceptance of what is new and different, the identification of needs and opportunities for improvement, coping with and overcoming difficulties, managing uncertainty, tolerance to frustration, personal initiative and creativity.

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

- Identifying new challenges, projects or opportunities for improvement in the field of the discipline aligned with future trends and advances.
- Proposing creative solutions to 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 in the field of the discipline.

These outcomes are aligned with the core competency in Innovation, Creativity and Entrepreneurship of the current UPV framework and with the outcomes of Design and Planning, Critical Thinking or Knowledge of Contemporary Problems, among others. I.3. TEAMWORK AND LEADERSHIP.

Collaborate 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 the effective management of relationships between team members 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:

- Functioning effectively in a team whose members jointly provide leadership and create a collaborative and inclusive environment in the organisation and coordination of work.
- Identifying roles and skills to operate in multidisciplinary teams with different professional profiles.
- Collaborating proactively in the carrying out of work, setting goals and meeting objectives.
- Helping find solutions to challenges or projects, showing empathy and assertiveness when sharing ideas, reflections and arguments within collaborative work.

These outcomes are aligned with the core competency in Teamwork and Leadership of the current UPV framework and with the Design and Planning or Time Planning and Management outcomes, among others.

#### I.4. EFFECTIVE COMMUNICATION

Communicate 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 the discourse to favour the understanding of the objectives, actions and/or results of their work.
- Developing professional texts or scientific-technical reports according to the conventions of the discipline.
- Adapting the organisation of content and the use of language, verbal and non-verbal, to make their arguments in different situations and/or before different audiences.
- Demonstrating proficiency in digital communication using a variety of support media adapted to the situation and audience.

These outcomes are aligned with the core competency in Effective Communication of the current UPV framework and with the Specific Instrumentation competency, among others.

## I.5. RESPONSIBILITY AND DECISION-MAKING

Act 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 advancing and evolving 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 regulated in the actions they take and the decisions they make. It means, therefore, to continue learning 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:

- Solving complex problems, autonomously, in the field of the discipline.
- Drawing conclusions from practical or experimental work and investigations carried out autonomously.
- Showing initiative in organising their work, managing the effort and time dedicated to achieve the proposed objectives and goals.
- Effectively applying techniques related to literature searching and the use of reliable data sources or other information systems.

These outcomes are aligned with the core competency in Lifelong Learning of the current UPV framework and with the generic outcome of Comprehension and Integration, Application and Practical Thinking, Analysis and Problem Solving or Time Planning and Management, among others.

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

II.1. The generic student 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 generic outcomes.

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 student 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 generic outcome.

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 generic outcome in terms of learning outcomes, and always at least three or more in bachelor's degree 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 will be guaranteed that, regardless of the path or specialisation studied, students will obtain a sufficient evaluation in all of the generic student outcomes and their general and specific outcomes at the end of their studies.

Subjects are assigned to 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 generic, general and specific 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 outcomes of the degree, the generic student 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 student 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 core competency will use two values: satisfactory or in the process of acquisition.

Students will receive the grade in the core competency 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 student 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 student 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 Art. 10.9.c of R.D. 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 its 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 student outcomes and their learning outcomes in the corresponding subjects and courses. The proposals and actions will be reflected in the degree management reports.

To reflect what is stated in this instruction, the designation of control points must be included in the November 2022 management report as an improvement action for the 2023-2024 academic year, with a maximum delay of one year for the assignment of learning outcomes.