

## 69163 - Research and Innovation Tools and Activities

### Syllabus Information

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**Academic year:** 2023/24

**Subject:** 69163 - Research and Innovation Tools and Activities

**Faculty / School:** 110 - Escuela de Ingeniería y Arquitectura

**Degree:** 615 - Máster Universitario en Robótica, Gráficos y Visión por Computador / Robotics, Graphics and Computer Vision

**ECTS:** 3.0

**Year:** 1

**Semester:** Second semester

**Subject type:** Optional

**Module:**

### 1. General information

The objective of the course is to understand the operation of research at an international level, applied to robotics, graphics and computer vision, and to be able to understand both the scientific context of a contribution and the process from the idea to its subsequent publication and presentation.

Robotics, graphic computing and computer vision are leading fields in which scientific research is a key piece. The ability to understand the process by which scientific contributions are developed is essential so that the student can interpret scientific contributions, develop as a potential researcher and be able to communicate the results of their work.

These approaches and objectives are aligned with the following Sustainable Development Goals, SDG, of the 2030 Agenda: Goal 8, targets 8.2, 8.3 and 8.6, and goal 9, target 9.5.

### 2. Learning results

The student must be able to:

- Understand and evaluate the main contents of research articles on robotics, vision and / or computer graphics and related topics.
- Organize and structure technical documents on research or innovation topics in the field of robotics, vision and / or computer graphics and related topics.
- Understand the operation of scientific dissemination events.
- Present technical research or innovation content in different fields.

### 3. Syllabus

The course will consist of the realization of a congress by the students, with the following blocks:

1. Introduction: key parts of the research process, scientific publication, dissemination and financing.
2. Writing
3. Reviewing
4. Presentation and dissemination

### 4. Academic activities

The course consists of 3 ECTS credits that correspond to an estimated student dedication of 75 hours distributed as follows:

- Master class: 6h
- Problem-solving and cases: 14h
- Laboratory sessions: 10h
- Carrying out practical application or research work: 12 h
- Study: 30h
- Assessment tests: 3h

### 5. Assessment system

Both in the continuous evaluation and in the global evaluation, the procedure is as follows:

E02 [50%] - Directed work. Different written reports will be considered, including article or technical report writing and article or technical report revision. The scientific quality, clarity and potential reproducibility of the content will be evaluated. In the reviews, the writing and the capacity for constructive criticism will be valued.

E03 [ 50%] - Oral presentations and debates. Within this section, the presentation or presentations of the corresponding article or report will be assessed, taking into account the clarity, conciseness and preparation of the presentation.

In order to pass the course it will be necessary to pass the E02 type test with at least a grade of 5 out of 10 points (N2), and the E03 type test with a grade of at least 5 out of 10 points (N3).

In case of passing both tests, the final grade will be calculated according to the following formula:  $0.5 \cdot N2 + 0.5 \cdot N3$ . If neither N2 nor N3 is passed, the final grade will be the higher of the two. In case of not passing N2 or N3, the grade will be that of the failed test.