

Academic Year/course: 2022/23

## 25105 - Systems of Representation I

### Syllabus Information

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**Academic Year:** 2022/23

**Subject:** 25105 - Systems of Representation I

**Faculty / School:** 301 - Facultad de Ciencias Sociales y Humanas

**Degree:** 278 - Degree in Fine Arts

**ECTS:** 6.0

**Year:** 1

**Semester:** Second Four-month period

**Subject Type:** Basic Education

**Module:**

## 1. General information

### 1.1. Aims of the course

The subject and its expected results respond to the following approaches and objectives:  
Highlight the communicative function of drawing, discovering and identifying geometric shapes in real references and technically represented.

Solve basic applied geometry problems involving geometric shape constructions and technical representations.

Act creatively and use the minimum resources with maximum clarity and graphic quality to achieve effective constructive and representative solutions.

Skillfully use sketches and intuitive perspective as tools for information, thinking and graphic creation.

Explain basic relationships of belonging, incidence, metrics and projectives between geometric shapes. Know and understand the main foundations of metric geometry to solve problems of shape configuration on the plane.

Understand and use the different types of projection as the foundation of representation system and know how to relate them.

Adequately use the rules and symbols of the discipline, according to regulations (UNE, ISO, etc)

### 1.2. Context and importance of this course in the degree

The subject is basic training. It continues in the second year with the mandatory Representation Systems II. Together with the subject, also for the first year and basic training, Image and shape analysis and the optional Systems of spatial representation, of third and fourth courses, constitute the subject Graphic expression in the study plan.

The course contributes essentially to developing the skills related to perception, organization and representation of form in space, determinants in all plastic creation and project activity

### 1.3. Recommendations to take this course

The recommended entrance profile for the degree in Fine Arts establishes as one of the most suitable characteristics and suitable «some capacity for spatial understanding and basic knowledge of geometry and drawing» (<http://titlaciones.unizar.es/bellas-artes/accesoadmision.html>).

The course has some very important theoretical foundations that can be especially difficult for those who He confronts her for the first time since new habits, skills and rigor in the use of drawing and its technical resources. The subject also has a strongly instrumental and progressive character, that is: the contents that are being worked on will be absolutely essential for the study and understanding of the following. For all of the above, it is recommended and fundamental to attend class regularly, participating and collecting systematically worked in the classroom, trying to update regularly and review.

A constructive and creative attitude should be developed, valuing the subject as a new means of communication, expression and reflection; as a valid tool for any artistic discipline

## 2. Learning goals

### 2.1. Competences

Upon passing the subject, the student will be more competent to ...

Basic competences

CB1 - That the students have demonstrated to possess and understand knowledge in an area of study that starts from the base of general secondary education, and is usually found at a level that, although supported by advanced textbooks, also includes some aspects that involve knowledge from the forefront of your field of study

CB2 - That students know how to apply their knowledge to their work or vocation in a professional way and possess the competencies that are usually demonstrated by making and defending arguments and solving problems within your study area

CB3 - That students have the ability to collect and interpret relevant data (usually within their area of study) to make judgments that include a reflection on relevant issues of a social, scientific or ethical nature

CB4 - That students can transmit information, ideas, problems and solutions to a specialized audience as unspecialized

CB5 - That students have developed those learning skills necessary to undertake studies later with a high degree of autonomy

General competences

CG06 - skill to work autonomously. Develop the ability to plan, develop and complete the work artistic personal

CG07 - skill to work in a team. Ability to organize, develop and solve work by applying interaction strategies.

CG09 - Capacity for perseverance. Develop the consistency necessary to resolve the difficulties inherent in creation

CG15 - Capacity for an ethical commitment and the promotion of equality between the sexes, the protection of the environment principles of universal accessibility and democratic values

Specific competences

CE07 - Knowledge of the vocabulary and concepts inherent in each particular artistic technique. Know the language specific own artistic languages

### 2.2. Learning goals

The student, to pass this subject, must demonstrate the following results ...

He argues his own productions from the knowledge of the geometric foundations of the way in nature and in the arts.

Solves geometric problems in the plane graphically and efficiently.

Demonstrates fluency and correction in the use of the sketch as a graphic representation tool for space three-dimensional oriented to a specific creative purpose using dihedral and axonometric views.

It distinguishes and explains the main types of projection, its structure and its relationship with the different systems of representation.

Values technical drawing as an auxiliary and creative tool based on knowledge of its foundations and rules.

### 2.3. Importance of learning goals

The course addresses principles and develops basic processes on the perception, functionality and structure of the way

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the space and its representation, useful for any discipline within the Fine Arts and components of any profile

professional associated with the title. These principles and processes are especially appropriate as an auxiliary tool,

constructive and representative in drawing and design, in two and three dimensions, and applicable to all plastic creation from t

ideation to completion. Contribute to the rigor of graphic expression in conception, development and communication

(documentation) of projects of all kinds in the artistic field, oriented to any context and exhibition space .

## 3. Assessment (1st and 2nd call)

### 3.1. Assessment tasks (description of tasks, marking system and assessment criteria)

Evaluation system

The achievement of learning and the acquisition of skills will be evaluated during the course with the continuous evaluation system, consisting of several different parts that will make up the

final mark on 10 points.

The non-presentation of the exercises and works within the margins of the continuous evaluation implies the loss of the right to it. That is, if the student does not deliver all the exercises proposed by the compulsory teacher, the personal creative proposal and does not attend the written test, loses the right of continuous evaluation and must take the global test in June provided in the examination calendar proposed by the center to be able to pass the subject.

Continuous evaluation.

1\_ First part made up of a set of activities and procedures that will make up the realization periodical of practical exercises on problems, cases and various assumptions related to contents of the program. It consists of a specific number of sheets that the teachers will go distributing physically or telematically throughout the course. The set of drawing plates and the Personal creative proposal will be forming a portfolio. Most of these exercises are integrated within the autonomous work of the student. There will be a number of exercises to be performed necessarily in person and individually in the classroom and will be delivered after completion. He throughout the course the teaching staff will carry out the exercises that compose the portfolio and may propose others of voluntary realization. As a whole, it will mean 25% of the grade.

2\_ Second part that will assess the degree of involvement, participation and personal initiative in the set of learning activities whose assessment is based on the systematic collection of data in the context of learning by teachers and in the work of tutoring. It will account for 5% of the qualification.

3\_ Third part that consists of the realization of a personal creative proposal, understood as technical development and practical application of some content of the program. This proposal will be part of the student's autonomous work. It will take the form of a project and must include a brief written memory. The teacher will indicate the theme (design of public sculpture or design of packaging of perfume) and the specific characteristics of the activity throughout the course explaining in some sessions its development index and the parts of which it is composed. It will account for 25% of the qualification.

This proposal will be mandatory presentation within the margins of the course and within the continuous assessment. Failure to present this work implies the loss of the right of evaluation Continues and forces the student to take the June global test.

4\_ Test of written evaluation that will suppose 45% of the final grade.

It will have two parts:

A\_ A series of practical exercises on various problems, cases and assumptions related to the contents of the program. It will be specified as a set of drawing sheets that involve the making geometric traces, graphic constructions and representations in relation to the contents of the program. Your grade will determine 35% of the grade.

B\_ A written test on theoretical aspects of the contents of the program. Part of the Questions raised will be related to the practical exercises. Your grade will determine 10% of the qualification.

Call for June and September through global test

Under this call, the evaluation will be carried out only by means of a global test, which will determine the 100% of the grade.

All students may opt for this modality, particularly those who have not taken the previous modality or have not passed the corresponding parts of the continuous evaluation that the composes or who, having passed it, wish to improve their qualification. It will have two parts:

A\_ a series of practical exercises on various problems, cases and assumptions related to the contents of the program. It will be specified as a set of drawing sheets that involve the realization of geometric traces, graphic constructions and representations in relation to the contents of the program. Your grade will determine 75% of the final grade for this system.

B\_ a written test on theoretical aspects of the contents of the program. Your rating will determine 25% of the final grade for this system.

Requirement levels The evaluation of learning and the acquisition of skills will be carried out in accordance with the following le

A second level refers to achieving greater integration of different learning and greater flexibility in problem solving. Occurs whe

The aforementioned criteria establish coordinates that allow differentiating between different degrees of achievement of the su

The student must know the plagiarism regulations of the University of Zaragoza and its consequences published in:

<https://biblioteca.unizar.es/propiedad-intelectual/propiedad-intelectual-plagio>

In the same way, you must know the Regulation of Learning Assessment Standards approved in agreement of 22 of December 2010, from the University Governing Council:

<http://cud.unizar.es/docs/ReglamentodeNormasdeEvaluaciondelAprendizaje.pdf>

## 4. Methodology, learning tasks, syllabus and resources

### 4.1. Methodological overview

The learning process that has been designed for this subject is based on the following: The course will include face-to-face classes in which activities focused on both the theoretical exposition will be developed of the main contents of the program as well as the practical approach to them through application exercises, the problem solving and case studies. The performance of exercises and problem solving, however, will constitute most of the student's autonomous work, with the support of class notes and the use of bibliography. In a transversal way in all the activities, and fundamentally through the realization of a project, it is intended favor the orientation of learning to own personal creativity based on the stimulus and example that the nature, design and the works of art themselves where the geometric structuring of the form, in the plane and in the space, and their perception is a primary question. As a general criterion, the application activities proposed They will have an explicit link with artistic disciplines. Participation and collaborative learning will be encouraged. Monitoring and evaluation, review, revision and permanent updating of exercises, problems and projects corresponds to the work of tutoring.

### 4.2. Learning tasks

4.2 learning activities The program offered to the student to help him achieve the expected results includes the following activities... Theoretical-practical exposition made by the teacher of the main contents, including explanations theory, practical demonstrations, problem solving and cases and solving exercises on contents of the program, where the board is mainly used and which are occasionally supported by audiovisual projections or three-dimensional models. Requires the taking of notes by the student. Periodic resolution of practical exercises both face-to-face and, fundamentally, not face-to-face. Solving problems in the form of drawing sheets that involve making geometric paths, graphic constructions and representations in relation to the contents of the program, and which will gradually shape a portfolio. When carried out in person, this activity will complement the exhibitions theoretical-practical carried out by the teacher (generally after the theoretical-practical study or analysis of a series of related contents) and, where appropriate, will serve as a direct reference to assess the evolution of learnings. When it is carried out in person, it may be accompanied by questions of a theoretical or practical related to a specific artistic application of the content. In any case, it is complemented by bibliographic support and class notes and forms the basis of the student's study work, completed through the tutoring sessions. This activity will be subject to continuous evaluation. Development of a personal project. Completion of an original project that involves a theoretical study, build on the geometric composition in the plane or space and incorporate the creative application of contents of the program. This activity will be subject to continuous evaluation

### 4.3. Syllabus

*The Program of the course is presented in blocks of differentiated content that can be taught in a linear way as indicated by the order numbers or may be altered due to teaching or scheduling needs.*

*1\_Subject presentation. Instruments and materials for the realization of geometric drawings. Materials and proposal of the personal project.*

*2\_Geometry in nature and in the arts and human techniques. Geometric shapes in design and in modern and contemporary art.*

*3\_Purpose and applications of standardized spatial representation.*

*4\_Basic geometric concepts and layouts. Segments, arcs, angles. Basic geometric places. Capable arc. The circumference.*

*5\_Proportionality in the plane. Thales' theorem. Applications. Golden ratio.*

*6\_Geometric transformations. Equality and identity. Movements in the plane: translation; rotation; central and axial symmetries; homotopy; equivalence. Methods and classification.*

*7\_Tangencies and links. Definitions, properties and applications. Fundamental cases.*

*8\_Technical curves. Oval and ovoid. Spirals. Fundamental layouts.*

*9\_Croquering and dimensioning. General aspects. Scales.*

*10\_Principles and object of descriptive geometry. Projections: concept and properties. Orthogonal and oblique cylindrical projection. Representation systems. Classification.*

*11\_System of dimensioned planes. Fundamentals.*

*13\_Axonometric system. Fundamentals. Point, line and plane. Belongings. Intersections.*

*14\_Abstraction, reduction to essential forms. The referents for the design. Dimensions, views and application to t*

### 4.4. Course planning and calendar

Each session of theoretical exposition will generally be accompanied by a variable series of practical exercises (slides) related to it and that, in general, will be part of the final portfolio.

These exercises will be provided physically or electronically. Some of them will be of obligatory character that the teacher will determine in concrete and others of voluntary character that will serve to extend the qualification of the student or to complete contents given in class in a theoretical way.

All the compulsory films must be submitted within the continuous evaluation, and the teacher may establish deadlines. Failure to submit the work within the established dates implies the loss of 20% of the grade for each of the exercises.

6 CREDITS - 2-HOUR SESSIONS, 4 HOURS PER WEEK.

- Beginning of the semester: Presentation of the course. Brief initial evaluation activity.
- Presentation of the subject. Instruments and materials for the realization of geometric tracings. Materials and proposal of the personal project: Geometry in nature and in the arts and human techniques. Geometric shapes in design and in modern and contemporary art. purpose and applications of the standardized spatial representation 1st Week
- Periodically: resolution and updating of exercises.

1ST BLOCK 3 WEEKS

- Basic geometric concepts and layouts.
- Proportionality in the plane.
- Geometric transformations.

2nd BLOCK 5 weeks

- Tangencies and links.
- Technical curves.
- Sketching and dimensioning.

3rd BLOCK 5 Weeks

- Principles and object of descriptive geometry.
- System of dimensioned planes.
- Axonometric system.
- Abstraction, reduction to essential forms.

FINAL PROJECT - LAST WEEK OF COURSE DOUBTS RESOLUTION 1 week

- End of semester: delivery of the set of exercises and portfolio of plates, personal project and written test.
- Calendar of exams established by the center (June and JULY): comprehensive test.