

Academic Year/course: 2022/23

25111 - Systems of Representation II

Syllabus Information

Academic Year: 2022/23

Subject: 25111 - Systems of Representation II

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

Degree: 278 - Degree in Fine Arts

ECTS: 6.0

Year: 2

Semester: Annual

Subject Type: Compulsory

Module:

1. General information

1.1. Aims of the course

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3. Solve body perspectives, graphically, in conical system.

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

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6. Explain relationships of belonging, incidence, metrics and projections between geometric shapes.

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7. Properly understand and employ different representation systems (metric and perspective).

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1.2. Context and importance of this course in the degree

The subject is mandatory. The basic training subject Representation Systems I, first year, continues in the second year.

Together with the subject, also first course and basic training, Analysis of the image and form and the optional spatial representation systems, third and fourth courses, constitute the subject Expression graph in the curriculum.

The subject essentially contributes to developing the capacities related to the perception, organization and representation of form in space, decisive in all plastic creation and project activity.

1.3. Recommendations to take this course

The subject has very important theoretical foundations that can be of particular difficulty for those who face it for the first time

since new habits, skills and rigor in the use of drawing and its technical resources must be acquired and consolidated. The subject also has a strongly instrumental and progressive character, it is say: 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 advisable and essential to attend class regularly, participating and compiling systematically what worked in the classroom, seeking its weekly update and review. Constructive and creative attitude should be developed by valuing the subject as a new means of communication, expression and reflection; as a valid tool for any artistic discipline. To overcome this subject it is mandatory to have passed the subject Representation Systems I.

2. Learning goals

2.1. Competences

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

General competencies

CG06. Ability to work autonomously. Develop the ability to propose, develop and conclude personal artistic work.

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

CG09. Ability to perseverance. Develop the constancy necessary to solve the difficulties inherent in creation.

CG13. Ability to carry out and integrate artistic projects in broader contexts. Develop strategies for projecting artistic creation beyond its field of action.

CG15. Capacity for ethical engagement and the promotion of gender equality, environmental protection, principles of universal accessibility and democratic values.

Specific competencies

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

CE23. Ability to professionally apply specific technologies. Use the appropriate tools for your own artistic languages.

CE32. Skills for artistic creation and ability to build works of art. Acquire the skills of artistic practice.

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 fundamentals of descriptive geometry, its methods and its history.

? Solve in a graphical way, on a physical medium, and efficiently, spatial representation problems in the diedral system.

? Solve graphically, on a physical support, and efficiently, the perspective of various bodies in a conical system.

? Distinguishes and explains the main representation systems, their structure and main methods.

? Value descriptive geometry as an auxiliary and creative tool based on knowledge of its fundamentals and standards.

? Explains and distinguishes the main computer-aided design systems, their types, fundamentals and applications.

2.3. Importance of learning goals

The subject addresses principles and develops basic processes on the perception, functionality and structure of the form in space and its representation, useful for any discipline within the Fine Arts and components of any professional profile associated with the degree. 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 any plastic creation from ideation to realization. They contribute to the rigor of graphic expression in the 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 apprenticeships and the acquisition of skills will be evaluated during the course with the continuous evaluation system, consisting of the same of several distinct parties that will comprise the final score on 10 points.

Failure to submit the exercises and work within the margins of the continuous evaluation implies the loss of the right to it.

That is, if the student does not give all the exercises raised by the teacher of a mandatory nature, the personal creative proposal the exercises and personal creative projects and does not attend the written test, loses the right of continuous evaluation and must be presented to the global test of June arranged in the exam schedule proposed by the center in order to pass the subject.

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>

Likewise, you should know the Rules of Standards of Learning Assessment Rules adopted in agreement of 22 December 2010 of the Governing Council of the University:

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

1_First part consisting of a set of activities and procedures that will form the periodic conduct of practical exercises on problems, cases and various assumptions related to the contents of the program.

It consists of a specific number of pictures that the teachers will distribute physically or telematically throughout the course.

The set of drawing sheets and the personal creative proposal will form a portfolio. Most of these exercises are integrated into the student's self-employment. There will be a number of exercises that will necessarily be carried out in person and

individually in the classroom and that will be delivered after its completion.

The teachers will specify throughout the course the exercises that obligatory the portfolio and may propose others of voluntary realization. As a whole, it will involve 25% of the rating.

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 training context itself and on the work of mentoring. It will take 5% of the rating.

Third part consisting of the realization of several exercises or personal creative projects, understood as technical development and practical application of some content of the program. These creative proposals will be part of the student's self-employment. It should be concreted in the form of projects and should include a brief written report. The teachers will indicate the subject and specific characteristics of each activity throughout the course explaining the rate of development of the same and the parts of which it is composed. It will be 30% of the rating.

These proposals will be mandatory to be presented within the margins of the course and within the continuous evaluation. The non-submission of this work involves the loss of the right of continuous evaluation and obliges the student to take the June test.

4_ Written evaluation test that will be 40% of the final grade. It shall consist of two parts:

A_ Some practical exercises on problems, cases and various assumptions related to the contents of the program. It will be concreted as a set of drawing sheets involving the realization of geometric plots, graphic constructions and representations in relation to the contents of the program. Your grade will determine 30% of the grade.

B_ A written test on theoretical aspects of the program's contents. Some of the issues raised will relate to the practical exercises. Your grade will determine 10% of the grade.

Call for June and September by global test:

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

This modality may be eligible for all students, in particular those who have not taken the previous modality or have not exceeded the corresponding parts of the continuous evaluation that composes it or who, having passed it, wish to improve their qualification. It shall consist of two parts:

A_ Some practical exercises on problems, cases and various assumptions related to the contents of the program. It will be concreted as a set of drawing sheets involving the realization of geometric plots, graphic constructions and representations in relation to the contents of the program. Your rating will determine 75% of the final rating by this system.

B_ A written test on theoretical aspects of the program's contents. Your rating will determine 25% of the final rating by this system.

Evaluation criteria:

The evaluation of apprenticeships and the acquisition of skills, relating to all activities carried out including the overall test, shall be carried out according to the following criteria:

- * Correction in the plotting and sketching as well as in the graphical methods and constructions used in the resolution of the exercises and geometric problems raised.
- * Correct argumentation of the foundations and theoretical elements that underpin the different constructions and representations.
- * Cleanliness, clarity and precision in the execution of exercises and activities.
- * Initiative and creativity and capacity to collaborate in the search for solutions to the problems raised and in the proposals made.
- * Evaluation of the communicative function of the drawing and the usefulness of the technical representation of the shapes.
- * Degree of integration of the different learnings.

Demand levels

The evaluation of apprenticeships and the acquisition of skills shall be carried out in accordance with the following levels of requirement:

- * A first elementary level implies a sufficient achievement of the objectives and learning results, a sufficient integration of them and, in particular, demonstrate order, clarity and cleanliness in the development of the different exercises and projects as well as in the communication of the results obtained.
- * A second level concerns the achievement of greater integration of the different learnings and greater flexibility in problem solving. It occurs when the student seeks alternatives to the approaches that are made, beyond the strict knowledge of the methods and procedures that allow its resolution and communicates them with remarkable efficiency.
- * A high rating is also associated with a greater understanding of geometric relationships and constructions based on a broader development of viewing capacity and, therefore, greater agility in spatial representation. The student shows an outstanding ability to anticipate, propose and explain solutions to problems regardless of the system, procedure or method used, demonstrating a high degree of creativity and integration of learning.

These criteria establish coordinates that allow to differentiate between different degrees of achievement of the competencies of the subject in a global way. They are therefore oriented to greater rigour in the evaluation of apprenticeships and in the qualification of the different evaluation activities according to the proposed criteria.

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 subject will include face-to-face classes in which activities will be developed focused both on the theoretical exposure of the main contents of the program and on the practical approach thereof through implementation exercises, problem solving and case study. Exercises and problem solving, however, will constitute most of the student's self-employment, supported by class notes and the use of bibliography.

In a transversal way in all activities, and mainly through the realization of creative proposals, it is intended to promote the orientation of learnings to one's own personal creativity based on the stimulus and example that nature, design and the

works of art themselves assume where the geometric structuring of the form in space and its perception are a primary issue. Some of the apprenticeships will require the use of computer media and software explained by the teacher. The monitoring and evaluation, review, review and permanent updating of exercises, problems and projects corresponds to the work of tutoring.

4.2. Learning tasks

The program offered to the student to help him achieve the expected results includes the following activities...

? Theoretical-practical exhibition made by the professor of the main contents, including theoretical explanations, practical demonstrations, problem and case-study approach and exercise resolution, where the whiteboard is mainly used and which are occasionally based on audiovisual projections or three-dimensional models. Requires note-taking by the student.

? Periodic resolution of practical exercises both in person and, fundamentally, non-face-to-face.

Problem solving in the form of drawing sheets that involve the realization of geometric plots, graphic constructions and representations in relation to the contents of the program, and that will form a portfolio. When carried out in person, this activity will complement the theoretical-practical exposures made by the teacher (usually after the study or theoretical-practical analysis of a number of related content) and, where appropriate, serve as a direct reference to assess the evolution of the learnings. Where carried out in a non-in-person manner, it may be accompanied by theoretical or practical issues related to a specific artistic application of the contents. In any case, it is complemented by bibliographic support and class notes and forms the basis of the student's study work, completed through tutoring sessions. This activity will be subject to continuous evaluation.

? Development of several personal creative proposals. Realization in each proposed exercise or project of an original creation that involves a theoretical deepening, is based on the spatial representation of the form and incorporates the creative application of program content. These activities will be subject to continuous evaluation.

4.3. Syllabus

The Program of the course is presented by differentiated blocks of content that can be taught in a linear way as indicated by the order numbers or may be altered

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1. Projective transformations. Homography. Translation and homotopy. Homology and affinity in the plane and in space. Homological transformations, abatements and rotations.
2. Surfaces and bodies. Plane sections. Developments. Practical cases.
3. Central projection system. Fundamentals.
4. Linear perspective. Generalities. Historical approach.
5. Vision of space and concepts about its representation. Construction of three-dimensional space in art. Representation systems and cultural models.
6. Conic perspective. types and methods. elements of the system: planes, lines, points. Viewing angles. Coordinates, term planes and depth scales.
7. Frontal or parallel conic perspective. Measurement. Metric points. Reduced data. Geometric bodies in space. Interior perspective. Horizontal frame perspective.
8. Oblique conic perspective. Perspective elements. Reduced metrics and inaccessible fugues. Curved lines and surfaces. Shadows and reflections.
9. Conical perspective of inclined frame. Multiple points. Curvilinear perspective.
10. Anamorphosis and stereoscopy. Fundamentals and types. Practical cases.
11. Observation perspective. Rules and keys. Urban and interior drawing. Perspective in illustration and comics. Practical cases.

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 concretely 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 obligatory films must be presented within the continuous evaluation, being able the teacher

to establish deadlines. Failure to submit the work within the established dates implies the loss of 20% of the grade for each of the exercises.

4.5. Bibliography and recommended resources

In addition to the own resources provided by the teachers and the online resources available to students, the following consultation bibliography is suggested for a deepening of the contents of the program:

- Rendón Gómez, Álvaro (2016) *Geometría paso a paso Volumen I Elementos de Geometría Métrica y sus aplicaciones en Arte, Ingeniería y construcción*, Madrid: Editorial Tébar Flores.
- Rendón Gómez, Álvaro (2017) *Geometría paso a paso Volumen II (tomo I y II) Geometría proyectiva y Sistemas de representación*, Madrid: Editorial Tébar Flores.
- Gonzalo, Joaquín (1997) *Prácticas de dibujo técnico Nº8: Inciación a la Perspectiva Cónica*, San Sebastián: Editorial Donostiarra.
- Gonzalo, Joaquín (1997) *Prácticas de dibujo Nº4: Perspectiva (Axonométrica y Caballera)*, San Sebastián: Editorial Donostiarra.
- Wong, Wucius (1979) *Fundamentos del diseño bi- y tri-dimensional*, Barcelona: Editorial Gustavo Gili.
- Arnheim, Rudolf (1979) *Arte y percepción visual*, Madrid: Alianza.
- Gombrich, E.H. (1960) *Arte e ilusión Estudio sobre la psicología de la representación pictórica*, New York: Phaidon.
- Hockney, David y Martin Gayford (2018) *Una historia de las imágenes, De la caverna a la pantalla del ordenador*, Madrid: Siruela.
- Panofsky, Erwin (1990) *La perspectiva como forma simbólica*, Barcelona: Tusquets.
- Meisner, Gary B. (2018) *La proporción áurea*, Madrid: Librero.
- Brehm, Matthew (2016) *Dibujo de la perspectiva, cómo verla, cómo aplicarla*, Barcelona: Editorial Promopress.
- Mollière, Bruno (2018) *La perspectiva en urban sketching, trucos y técnicas para dibujantes*, Barcelona: Editorial Gustavo Gili.
- Brehm, Matthew (2018) *Dibujo de la perspectiva*, Barcelona: Promopress.