Year 2024-25

Istituto Europeo di Design
Private Licensed Centre

TEACHING GUIDE FOR

Volume

Foundation Course – IED Madrid Diploma Programme

Total Design

Updated on: 1st September 2024

Foundation Course – IED Madrid Diploma Programme.
Subject: Volume.

1. SUBJECT/COURSE IDENTIFIERS

Type	Basic training
Nature	Theoretical-practical course
Specialty/itinerary/style/tool	Total Design
Subject/Field	Languages and techniques for representation and communication
Teaching/course period	1st Semester
Number of credits	4 ECTS
Department	Didactic/Educational Department
Priority/ prerequisites	Without priority
Language/s in which the course is taught	English

2. TEACHER IN CHARGE OF THE SUBJECT

Surname & Name	E-mail
Miguel Cencerrado, Mirian	

3. LIST OF LECTURERS AND GROUPS THEY TEACH

Surname & Name	E-mail	Groups

4. COMPETENCIES/SKILLS

Cross-sectoral skills
CT2 Collecting meaningful information, analysing, synthesising and managing it accordingly.
CT6 Being self-critical with one's own professional and interpersonal performance.
CT12 Adapting under competitive conditions, to cultural, social and artistic changes and to the progress taking place in their professional field, thus, selecting the correct channels for continuous education.
CT13 Pursuit of excellence and quality in their professional activity.
CT15 Working autonomously and knowing how to value the importance of initiative and entrepreneurship in professional practice.
CT17 Through their professional activity they shall raise social awareness towards the importance of cultural heritage, its impact in different areas and its capacity to generate significant values.

General skills
CG1 Conceiving, planning and developing design projects according to technical, functional, aesthetic and communicative requirements and conditions.
CG2 Mastering the languages and expressive resources of representation and communication.
CG3 Establishing relationships between formal language, symbolic language and specific functionality.
CG4 Having a scientific vision of the perception and behaviours of form, matter, space, movement, and colour.
CG6 Disseminating knowledge of the historical, ethical, social and cultural aspects of design.
CG8 Proposing research and innovation strategies to solve expectations focused on functions, needs and materials.
CG10 Adapting to changes and to the industrial technological evolution.
CG12 Delve deeper into the history and tradition of arts and design.
CG18 Optimizing the use of the resources needed to achieve the planned objectives.

Specific skills
CFB4 Analysing, interpreting, adapting and producing information related to the materialization of projects.

5. LEARNING ACHIEVEMENTS

- Knowing how to experiment with form and materials in order to propose new volumetric elements.
- Knowing how to perceive matter, form, space and their behaviour.
- Understanding volume and form as representations of design language.
- Knowing how to distinguish the spatial elements associated with design.
- Knowing how to modify volumes in two-dimensional and three-dimensional systems.
- Learning the ability to solve and modify basic three-dimensional forms (mock-ups, models), to express their design projects with speed, clarity and in a neat fashion.
- Acquiring the skill to identify and know how to properly apply the techniques of cutting, folding, bending, gluing and bonding of basic materials such as: wire, threads, paper, cardboard, balsa wood, eco-plastics, plaster, modelling putties and fabrics, thus taking advantage of their intrinsic formal characteristics in the study of volume.
- Knowing how to represent volumes in two-dimensional and three-dimensional systems.
- Knowing how to approach the new proposals of formal transformation to apply them in volume exercises and their possibilities in design exercises and other subjects.

6. CONTENTS

Section (if applicable)	Topic/repertoire
I. BASIC CONCEPTS	**Topic 1. INTRODUCTION** 1.1. Objectives. 1.2. Methodology and regulation. 1.3. Introduction to volume. 1.4. Introduction to the workshop and techniques.
	Topic 2. VOLUME 2.1. Components and interaction. 2.2. Typologies.
II. MATERIALS	**Topic 3. MATERIALS** 3.1. Main materials. 3.2. Tools.
III. THE DOT, THE LINE, THE PLANE	**Topic 4. CONCEPT & ORIGIN** 4.1. The dot, the line and the plane in each discipline. 4.2. General and conceptual vision. 4.3. Virtual, social and linguistic vision. 4.4. Flat, two-dimensional and three-dimensional vision
	Topic 5. TYPOLOGIES
	Topic 6. PLANE 6.1. Texture. 6.2. Colour.
IV. COMPOSITION	**Topic 7. SUPPORT, MESH, STRUCTURE** Ridge, edge.
	Topic 8. SCALES & PROPORTIONS
V. CONTEXT	**Topic 9. LIGHTS & SHADOWS** Incidence of light and the spatial environment.
	Topic 10. MODULE

7. STUDENTS WORK TIME PLAN/SCHEDULE

Type of Activity	Total hours
Theoretical activities	11.5 hours
Practical activities	21.5 hours
Other mandatory training activities (conferences, seminars, etc.)	32 hours
Tests	7 hours
Student's working hours	34 hours
Internship/work placement preparation	14 hours
Student's total working hours	**120 hours**

8. METODOLOGÍA

Theoretical activities	Lecture in the first part of the session, where the teacher will present the theoretical concepts and their analysis. During the lecture students will be able to ask questions to solve any questions that may arise.
Practical activities	In the 2nd half of the sessions, students will put into practice the concepts learnt. Practical exercises encouraging personal reflection on the work carried out, and drafting of conclusions regarding what has been learnt, favouring a functional learning process that enables practical applications of the concepts acquired.
Other mandatory training activities (conferences, seminars, etc.)	Project workshop: Students will have open workshops on modelling, volume, and digital tools for the development of their projects and exercises – additionally they will have support sessions to practical classes in which, with a participatory methodology based on self-evaluation and discussion, students can solve questions s and advance in the project with the help of a tutor guide.

9. EVALUATION AND GRADING CRITERIA AND INSTRUMENTS

Work to be assessed:

1. Knowing how to experiment with form and materials to propose new volumetric elements.
2. To be able to identify how matter, form, space and their behaviour are perceived.
3. Understanding volume and form as representations of the language of design.
4. Knowing how to distinguish the spatial elements associated with design.
5. To be able to modify volumes in two-dimensional and three-dimensional systems.

6. Learning the skill to solve and modify basic three-dimensional forms (models, mock-ups) to express their design projects quickly, clearly and neatly.
7. Learning to identify and know how to properly apply the techniques of cutting, folding, bending, gluing, and bonding of basic materials such as wire, thread, paper, cardboard, balsa wood, eco-plastics, plaster, modelling putties and fabrics, to take advantage of their intrinsic formal characteristics in the study of volume.
8. Knowing how to represent volumes in two-dimensional and three-dimensional systems.
9. To be able to approach the new proposals of formal transformation, to apply them in volume exercises and their possibilities in design exercises and within other subjects.

The evaluation assessment must be designed and planned in a manner that integrates it within the teaching/learning training activities.

The assessment of students learning ought to be continuous, personalized and integrative:

- Continuous: in that it is integrated into the teaching-learning process and consequently is not limited by dates or specific situations.
- Personalised: since it must take into account the capacities, skills and the student's attitude. Special attention will be paid to the student's participation in work groups.
- Integrative: in that it requires taking into account the general capacities established for each stage, this will be done through the objectives in the different units and areas.

Students' learning will be assessed in relation to the achievement of the educational objectives that are specified in the course syllabus, and associated to the general and specific objectives, taking as an immediate reference the evaluation criteria established for each learning area.

To assess students learning process we need to:

- Evaluate their curricular competence (abilities and aptitudes).
- Assess the factors that hinder or facilitate good learning.
- Encourage self-evaluation and co-evaluation of students amongst themselves, as a source of critical analysis of their results, to allow for changes in attitude and for their improvement.
- Value the learning context in which the student develops.

9.1. EVALUATION/ASSESSMENT TOOLS

Theoretical activities	Student will be expected to have an active role in the classroom, sharing thoughts and experiences. Mandatory tutorials as a follow-up to exercises.
Practical activities	Weekly practical exercises will be set, these will deal with the perception and experimentation of the concepts explained in the classroom. Students will be encouraged to produce a final project where they will develop exercises associated to the subject.
Other mandatory learning activities (lectures, seminars, etc.)	Active attendance to workshops, seminars, exhibitions, conferences or webinars, sharing reflections and knowledge in the classroom with the group.

9.2. EVALUATION CRITERIA

Theoretical-practical activities	• Active attention and understanding during explanations • Showing initiative to contribute with own opinions and constructive criticism • Punctuality and quality throughout the research process, in the follow-up of the exercises during tutorials.
Practical activities	The evaluation/assessment of the practical cases and in turn of the final project will deal with: • Correct practical use of the theoretical tools presented in the classroom • Careful execution • Careful conceptualization • Contributions • Punctuality: handing-in assignments on time. The handing-in of the Final Project will assess: • Punctuality of work delivered in tutorials • Visual presentation • Oral presentation and back-up of the project • Communicative tools used • Contributions from the project workshop.
Other mandatory learning activities (lectures, seminars, etc.)	We shall value how students apply the knowledge acquired in workshops, seminars, expositions, conferences or webinars, to the work and projects of the course.

9.3. GRADING CRITERIA

1. The evaluation system to be used in the subject/course is adapted to the continuous evaluation model.
2. In the continuous evaluation system, class attendance is compulsory, and students must comply with a percentage of activity in the presence of the teacher, which is estimated to be 80%.
3. If the student does not meet the criteria for continuous evaluation, they will be graded in a evaluation process with a loss of continuous evaluation - they will present the projects requested during the course and a specific test for this call, and, their corresponding relative weights are shown in section 9.3.1 and 9.3.2 of this guide.
4. In any case, the student will take an extraordinary exam, the structure, evaluation instrument and grading criteria for said exam is explained in section 9.3.3 of this guide.
5. In order to pass the subject/course, the student must meet the requirements of the weighting of the evaluation instruments defined in points 9.3.1, 9.3.2 and 9.3.3.3.

9.3.1. Assessment tools for the weighting of grades in the continuous assessment process

Tools	Weighting of grades
Weekly practical work presentation	40%
Project follow-up and development	50%
Critical and well-argued participation in debates, tutorials and workshops	10%
Total	**100%**

9.3.2. Assessment tools for the weighting of grades in the evaluation process following a loss of continuous assessment/evaluation

Tools	Weighting of grades
Drafting and presentation of the exercises and final project.	60%
Presentation of the specific test for the evaluation in case of a loss of continuous evaluation.	40%
Total	**100%**

9.3.3. Assessment tools for the weighting of grades in the extraordinary evaluation process

Tools	Weighting of grades
Presentation of practical exercises and Final Project	60%
Presentation of the specific test for the extraordinary evaluation	40%
Total	**100%**

9.3.4. Weighting of grades in the evaluation process for students with a disability

When the evaluation tools are adapted for this purpose, all the different types of disability must be taken into account.

Tools	Weighting of grades
These shall be determined taking different types of disability into consideration	
Total	**100%**

10. TIME PLANNING OF THE CONTENTS, TEACHING METHODOLOGY AND EVALUATIONS

Session	CONTENTS, CONECTED TEACHING METHODOLOGY, AND EVALUATION TOOLS		Total hours presence-based	Total hours not presence-based
Session 1	**TOPIC 1-2: Introduction**			
	Theoretical activities	Master class covering the specific syllabus contents of this section (Methodology, contents of the subject and introduction to the workshop and volume typologies).	2,5 hours	
	Evaluation	Proactive attitude in the classroom.		
Session 2 - 5	**TEMA 3: Materiales**			
	Theoretical activities	In the 1st half of this master class the specific syllabus of the section will be covered (Components, typologies and tools).	4 hours	
	Practical activities	In the 2nd half of the sessions, students will put into practice the new concepts learnt through a series of set exercises.	6 hours	
	Other learning activities	Attendance to project workshop.		10 hours
	Evaluation	Proactive attitude in the classroom.		
Session 6	**TOPIC 4: Concept & origin**			
	Theoretical activities	Master class covering the specific syllabus contents of this section (The dot, the line and the plane in each discipline, general vision, conceptual vision, etc.).	1 hour	
	Practical activities	Producing a case-study. Students will put into practice the new concepts and knowledge through a series of set exercises.	1 hour	
	Other learning activities	Attendance to project workshop.		3 hours
	Evaluation	Proactive attitude in the classroom, sharing experiences, knowledge, and the tools provided through work at the workshop. Follow-up and reviewing the case-study.	0.5 hours	

Session 7	**TOPIC 5: Typologies**			
	Theoretical activities	Master class covering the specific syllabus contents of this section.	0,5 hours	
	Practical activities	Producing a case-study. Students will put into practice the new concepts and knowledge through a series of set exercises.	1,5 hours	
	Other learning activities	Attendance to project workshop.		3 hours
	Evaluation	Proactive attitude in the classroom, sharing experiences, knowledge, and the tools provided through work at the workshop. Follow-up and reviewing the case-study.	0.5 hours	

Session 8	**TOPIC 6: The Plane**			
	Theoretical activities	Master class covering the specific syllabus contents of this section (texture, colour, etc.). Compulsory tutorials.	0,5 hours	
	Practical activities	Producing a case-study. Students will put into practice the new concepts and knowledge through a series of set exercises.	1.5 hours	
	Other learning activities	Attendance to project workshop.		3 hours
	Evaluation	Proactive attitude in the classroom, sharing experiences, knowledge, and the tools provided through work at the workshop. Follow-up and reviewing the case-study.	0.5 hours	

Session 9 - 10	**TOPIC 7: Support, mesh & structure**			
	Theoretical activities	Master class covering the specific syllabus contents of this section. The teacher will display documents and images and will analyse them using the necessary ICTs.	1 hour	
	Practical activities	Producing a case-study. In the 2nd half of the session's students will put into practice the new concepts and knowledge through a series of set exercises. Project development.	3 hours	
	Other learning activities	Attendance to project workshop.		3 hours
	Evaluation	Proactive attitude in the classroom, sharing experiences, knowledge, and the tools provided through work at the workshop. Follow-up and reviewing the case-study.	1 hour	

Session 11	**TOPIC 8: Scales & proportions**			
	Theoretical activities	Master class covering the specific syllabus contents of this section. The teacher will display documents and images and will analyse them using the necessary ICTs. Compulsory tutorial.	0,5 hours	
	Practical activities	Producing a case-study. Students will put into practice the new concepts and knowledge through a series of set exercises. Project development.	1,5 hours	
	Other learning activities	Attendance to project workshop.		3 hours
	Evaluation	Proactive attitude in the classroom, sharing experiences, knowledge, and the tools provided through work at the workshop. Follow-up and reviewing the case-study.	0.5 hours	

Session 12	**TOPIC 9: Light and shade**			
	Theoretical activities	Master class covering the specific syllabus contents of this section (light, space environment, etc.). The teacher will display documents and images and will analyse them using the necessary ICTs. Compulsory tutorial.	0.5 hours	
	Practical activities	Producing a case-study. Students will put into practice the new concepts and knowledge through a series of set exercises. Project development.	1,5 hours	
	Other learning activities	Attendance to project workshop.		3 hours
	Evaluation	Proactive attitude in the classroom, sharing experiences, knowledge, and the tools provided through work at the workshop. Follow-up and reviewing the case-study.	0.5 hours	

Session 13 - 14	**TOPIC 10: Module**			
	Theoretical activities	Master class covering the specific syllabus contents of this section. The teacher will display documents and images and will analyse them using the necessary ICTs.	1 hour	
	Practical activities	Producing a case-study. In the second half of the sessions, students will put into practice the new concepts and knowledge through a series of set exercises. Project development.	3 hours	
	Other learning activities	Attendance to project workshop.		4 hours
	Evaluation	Proactive attitude in the classroom, sharing experiences, knowledge, and the tools provided through work at the workshop. Follow-up and reviewing the case-study.	1 hour	

Session 15	**Final Handing-in/Delivery**			
	Practical activities	Continuous Evaluation: Project & result evaluation Evaluation following a loss of continuous evaluation/assessment: the evaluation will be based on projects and results, as well as the specific test.	2,5 hours	

Session 16	**Comments on the Final Results**			
	Evaluation	Evaluation, comments & information on the Project and exercise results.	2,5 hours	

11. TEACHING RESOURCES AND MATERIALS

11.1. General Bibliography

Title	Fundamentos del diseño Bi y tridimensional. (English edition title: “Principles of Two-Dimensional Design” Wiley. 1972)
Author	Wong, Wucius
Publisher	Gustavo Gili

Title	Cómo nacen los objetos (First original edition in Italian published in 1981 by editorial Laterza de Bari en 1981 in the colection “Biblioteca di Cultura Moderna”.
Author	Munari, Bruno
Publisher	Gustavo Gili

Title	Arquitectura. Forma, espacio y orden (English edition title: “Architecture: Form, Space & Order”.)
Author	Ching, Francis D. K.
Publisher	Gustavo Gili, 1998

11.2. Additional Bibliography

Title	Diseño y comunicación visual. Original Italian title: “Design e comunicazione visiva. Contributo a una metodologia didattica” 1968. English title: “Design and Visual Communication. Contributions to a Teaching Method.”
Author	Munari, Bruno
Publisher	Gustavo Gili

Title	Drapeados (arte y técnicas de creación de moda). English title: “Draping: Art and craftsmanship in fashion design” 2008.
Author	Duburg, Anette / Van der Tol, Rixt
Publisher	Promopress

Title	Manual de Modelismo. English title: “The Modelmaker’s Handbook” 1981
Author	AAVV
Publisher	Blume

Title	Cursos de la Bauhaus English title: “Classes by Wassily Kandinsky” 1922-33. Wassily Kandinsky. (bauhauskooperation.com/knowledge/the-bauhaus/training/curriculum/classes-by-wassily-kandinsky)
Author	Kandinsky, Wassily
Publisher	Alianza Editorial, 1983