

5/6S_ON_Interactive Base

Qualification: Degree in Higher Artistic Education in Design in graphic design specialties

Subject: Workshop on applications, techniques and resources

Type: Optional

Credits: 3 ECTS

Course: 3

Semester: 5/6

Language in which it is taught: Catalan

Total hours: 75 h

Hours/week: 4,7 h

Face-to-face hours/week: 2 h

Self-employed hours/week: 2,7 h

1. Presentation of the subject

The Interactive Base subject introduces students to the bases, strategies, techniques and procedures used in the conception, design, production and publication of different types of interconnection and interaction between programs, platforms, programming languages and devices.

It presents a practical approach, combining capsules of theoretical content, techniques and procedures, with the practice and carrying out of meaningful activities for students, leaving open the possibility of adaptation based on new projects or variations of the examples done in the classroom.

2. Course contents

1. Interface design for interactive web environments

- Information architecture applied to interactive systems.
- Navigation flows and interaction patterns.
- Functional prototyping of interfaces with digital tools (Figma).
- Translation of the prototype into interactive web interfaces.

2. Web forms and user interaction

- Function of forms as a data entry system.
- Types of fields and structuring of web forms.
- Design of accessible and user-oriented forms.
- Integration of forms in interactive projects.

3. Introduction to databases

- Database concept and management systems (MySQL).
- Design of tables, fields and basic relationships.

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- Structuring the information according to the needs of the project.

4. Web programming with PHP applied to data

- PHP fundamentals for interactive projects.
- Connection between PHP and MySQL databases.
- Writing and reading data using forms.
- Processing of data entered by the user.

5. Adaptation of HTML websites to dynamic environments with PHP

- Conversion of static HTML structures to PHP files.
- Separation of content, structure and logic.
- Reuse of components and dynamic content.
- PHP integration into existing web projects.

6. Data collection and visualization systems

- Processing and storage of recorded data.
- Visualization of dynamic content based on data.
- Relationship between data, interface and user experience.

7. Publishing and managing web projects

- Publishing projects on a web server with PHP and MySQL.
- Verification of operation in a real environment.
- Resolution of basic production incidents.

8. QR codes and digital dissemination strategies

- The QR code as a gateway to interactive systems.
- Integration of QR in digital communication projects.
- Introduction to basic dissemination strategies on social networks.

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3. Skills worked on in the subject(Real Decret 633/2010)

Transversal skills		Subject	Subject
CT-01	Organize and plan work in an efficient and motivating way.	X	X
CT-03	Solve problems and make decisions that meet the objectives of the work being carried out.	X	X
CT-16	Use the means and resources at your disposal responsibly towards cultural and environmental heritage.	X	X

General skills		Subject	Subject
CG-02	Master the languages and expressive resources of representation and communication.	X	X

Specific Graphic Design skills		Subject	Subject
GRA-02	Master the formal resources of expression and visual communication.	X	X

4. Subject learning outcomes

RA	Description of the learning outcome	Skills
RA-01	Identify, know and use tools and materials for technical applications and/or the resources and processes of manufacturing, production and manufactured goods and assess their application to design specialties.	CT-03, CG-02, GRA-02
RA-02	Analyze and evaluate possibilities of resources and techniques to promote incorporation into work processes related to their specialty.	CT-03, CT-16, CG-02
RA-03	Organize, plan and apply traditional and/or current techniques, experiment, create and formalize work by looking for affinities and uses in design specialties.	CT-01, CT-03, CG-02, GRA-02
RA-04	Design interactive interfaces for web environments using functional prototypes aligned with the project objectives.	CT-01, GRA-02
RA-05	Structure the data of an interactive project by designing databases consistent with its functionality.	CT-03
RA-06	Implement data entry and visualization systems in web environments using PHP and MySQL databases.	CT-03
RA-07	Develop an interactive web application integrating interface, data and programming into a functional system.	CT-01, CT-03

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RA-08	Design and apply a basic dissemination strategy for an interactive project using a web server, QR codes and social networks.	CT-01, CT-03, CG-02, GRA-02
RA-09	Critically evaluate the project developed, identifying its effectiveness and possible improvements.	CT-03, CG-02, GRA-02

5. Teaching methodologies applied to the subject

Code	Typology	Description	Apply
MD1	Conference and/or master class	The teacher presents and transmits knowledge to the entire group of students, the student has a passive role, that of a receiver.	AF1
MD2	Debate and/or discussion	The teacher encourages and moderates debates and/or discussions that promote reflection, critical thinking and active participation of students in the classroom.	AF1 and AF2
MD6	Presentations and/or defenses	Publicly presenting the results of a work, project or research in front of an audience.	AF1 and AF2
MD7	Case study	Analysis of situations or problems within the specialty with the aim of reflecting, analyzing and discussing different intervention or solution proposals through examples or references.	AF1 and AF2
MD8	Project work	Project or problem based on the real or professional world that needs to be solved independently or in a group.	AF1 and AF2
MD9	Guided practice	The teacher presents and transmits theoretical knowledge applied to practical activities that take place in the classroom. The teacher guides, supervises and gives active feedback during the practice.	AF1 and AF2
MD10	Flipped classroom	Transfer part of the theoretical learning outside the classroom, through online materials or resources prepared by the teacher, to dedicate face-to-face time to practical, participatory activities and knowledge application.	AF1 and AF2
MD11	Collaborative work	Joint construction of knowledge through interaction and collaboration between students. The teacher has a guiding and dynamizing role.	AF2
MD12	Agile methodologies	Type of teamwork in which work is carried out in several short periods of time.	AF2

6. Training activities of the subject

Code	Description	Duration	Weighting
AF1	Interactive form project	4 weeks	30%
AF2	Social network project	12 weeks	70%

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7. Evaluation systems

Due to their typology and educational program, all subjects in the ESDAPC undergraduate design studies include continuous assessment as a procedure to regulate and qualify the learning achieved by students during the semester.

In the event of not achieving the level of sufficiency in the evaluation activities within the closing milestones set out in the subject's schedule, the activities not passed may be corrected and/or completed within the recovery procedure defined by the teaching staff in their schedule.

7.1. Continuous evaluation

General evaluation criteria

The ESDAPC sets some **general evaluation criteria** which are common to all teaching guides, without prejudice to the specific evaluation and grading criteria of each subject:

- Subject grading: A weighted average of the grades obtained in each of the training activities will be made in accordance with the percentages described in the teaching guide and classroom schedule. The subject will be passed with a grade of 5.0 (Pass). All assessment activities can be corrected and/or completed within the recovery procedure within the continuous assessment that the teaching staff defines in their classroom schedule.
- Class attendance is essential in order to guarantee that learning is progressive, flexible and allows feedback and adjustments in its achievement within the continuous assessment. For this reason, class attendance is mandatory. The teaching staff establishes the mechanisms to control it. The student who does not attend a minimum of 80% of the face-to-face hours of the subject loses the right to continuous assessment and may present for remediation outside of the continuous assessment defined in the teaching guide and classroom schedule for the subject. In cases of serious absenteeism, with attendance of less than 60% of the face-to-face hours of the subject, the student will lose the right to be evaluated and will have a grade of "Not Presented".
- The ability to organize and plan tasks is part of the learning outcomes that the student must achieve within the training process, therefore the deliverables of the evaluation activities must conform to the deadlines, the format and contents defined in the activity statement in order to be qualified. Activities submitted after the deadline, format and/or minimum content will be considered outside the continuous assessment process, will not be evaluated within it and will have to be resubmitted as a recovery.
- In the event of a submission or exam coinciding with a force majeure situation, the student may request to submit an activity after the deadline or repeat an exam, without being considered out of continuous assessment. This submission or exam will be carried out according to the conditions and calendar determined by the teaching staff.
 - Force majeure is understood to mean: serious illness or temporary incapacity (hospitalization) of student or a first-degree relative, coincidence with an official language level or driving license ex

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inexcusable duties before the administration or death of a first- or second-degree relative. It must be requested in an argued and justified manner in the form of [generic application](#), addressed to the campus management, and must necessarily include the original with a stamp of the document proving the major cause alleged.

- The evaluation process is based on the student's personal work and presupposes the authenticity of the authorship and originality of the exercises carried out. Any act of copying and/or plagiarism or irregular use of Artificial Intelligence (AI) will result in the immediate and irrevocable suspension of the assessable activity, without the right to recovery.

However, and without contradicting these general criteria, each teacher may define other specific complementary conditions, which must be informed and published in writing at the beginning of the course to all students enrolled in their subject.

These complementary conditions cannot in any case result in a penalty or limitation of the qualification of an activity, nor the loss of the right to recover an activity.

Specific evaluation criteria within continuous evaluation

Use of technical tools and resources (RA1) — 5–10%

- Appropriate identification of tools, materials and technical resources applicable to the project.
- Correct use of technical and technological resources.
- Adaptation of the selected tools to the needs of the project.
- Assessment of the application of resources in the field of design.

Analysis and evaluation of resources and techniques (RA2) — 5–10%

- Ability to analyze different resources and applicable techniques.
- Justification of decisions made in relation to work processes.
- Responsible assessment of the resources used.
- Coherence between the chosen resources and the project objectives.

Organization and application of techniques (RA3) — 10–15%

- Adequate planning of the work process.
- Correct application of traditional and/or current techniques.
- Ability to experiment and formalize proposals.
- Coherence between process, result and design specialty.

Interface design and prototyping (RA4) — 10–20%

- Adaptation of the interface design to the project objectives.
- Clarity of interaction and navigation flows.
- Visual coherence, information hierarchy and user experience.
- Quality and functionality of the prototype developed.

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Data Structuring (RA5) — 10–15%

- Adaptation of the database structure to the functionality of the project.
- Consistency between data, system and intended use.
- Ability to organize and synthesize information.

Technical implementation (RA6) — 15–20%

- Correct functioning of forms and data entry systems.
- Correct connection between PHP and the MySQL database.
- Functional visualization of recorded data.
- Resolution of basic technical problems.

Interactive project development (RA7) — 20–25%

- Coherent integration of design, data and programming.
- Global functionality of the developed system.
- Technical suitability to server conditions and real environment.
- Project evolution and capacity for iteration and improvement.

Publication and dissemination of the project (RA8) — 15–20%

- Correct publication of the project on a real web server.
- System operation in a production environment.
- Coherence and adequacy of the dissemination strategy through QR codes and social networks.
- Quality of the presentation and communication of the project.

Critical evaluation and reflection (RA9) — 5–10%

- Ability to critically analyze the project developed.
- Identification of successes and areas for improvement.
- Quality of reflection on the communicative and functional effectiveness of the system.

Evaluation instruments within continuous evaluation

Continuous assessment is based on the progressive monitoring of students' work throughout the semester, through the systematic collection of evidence of the process and the results of the projects developed. The assessment instruments used allow for the assessment of both the process and the final result, as well as offering constant and guiding feedback.

Instruments used

Rubrics

Specific rubrics are used to evaluate the projects and their different phases, aligned with the learning outcomes and specific evaluation criteria. The rubrics allow for objective and transparent grading, and facilitate the understanding of the criteria by the students.

Application and practice exercises

Practical activities developed in the classroom or as independent work, aimed at verifying the achievement of

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technical and procedural content (forms, PHP, databases, web publishing).

Individual and/or group feedback

Continuous feedback from the teaching staff, orally and/or in writing, during the development of the training activities. The feedback has a formative and guiding function, allowing the project to be adjusted and improved before the final delivery.

Direct observations and observation records

Systematic monitoring of student work in the classroom, taking into account involvement, work process, problem-solving ability and project evolution.

Project monitoring reports

Partial documents or evidence that allow the evaluation of the project's evolution, decision-making and the coherence between the objectives set and the actual development.

Self-assessment

Self-assessment tools that allow students to reflect critically on their learning process, the results obtained and the degree of achievement of the project's objectives.

Co-evaluation

Peer evaluation at specific points in the process, aimed at promoting critical thinking, analytical skills and shared responsibility in collaborative work.

Qualification

The final grade for the subject is obtained through the weighted average of the grades obtained in the training activities, in accordance with the percentages established in the teaching guide.

To be evaluated, it is essential that the teacher has been able to continuously monitor the student's work process.

7.2. Recovery

General recovery criteria

The ESDAPC sets general recovery criteria that are common to all teaching guides, without prejudice to the specific evaluation and grading criteria of each subject:

- The ESDAPC provides for a single recovery per activity. The recovery of suspended activities will be done within the deadlines defined by the teaching staff in their teaching guide and classroom schedule within the same semester. In the event that the teaching staff has not established a recovery calendar, the student may submit the recovery activities during the last school week of the semester.

Specific recovery criteria within continuous assessment

The same specific evaluation criteria are maintained as in continuous evaluation. If an activity is submitted to recover or improve the grade obtained in the first submission, the new assessment will replace the previous grade. If deficiencies are detected in the review of this recovery, the grade may be reduced, affecting the final grade for the subject. To be evaluated, it is essential that the teaching staff has

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monitored the student's work process.

Specific recovery criteria outside of continuous assessment

- Students who do not meet the general evaluation criteria, described in point 7.1, will have to make up the activities outside of continuous evaluation.
- Students with activities that do not meet the format, content and deadline conditions will have to make up the activities outside of continuous assessment.
- To be eligible to make up, pending activities must be submitted within the make-up period indicated by the teacher or, if this is not established, the make-up can be done during the make-up week.

Subject recovery instruments outside of continuous assessment

Evidence will be collected through course activities not submitted within the established deadline and complementary activities that may take the form of written/practical tests; Questionnaires; Complementary exercises/extension activities.

8. Educational care within the framework of an inclusive education system

This Teaching Guide takes into account educational care within the framework of an inclusive educational system that includes two reference frames that support it:

- MISU: Universal Measures and Supports to promote personal and social development in equity and equality.
- DUA: Universal Learning Design, which allows flexible learning situations to be created based on a design that detects and minimizes the barriers of the context, from the beginning, and that considers variability.

However, to ensure freedom of thought and opportunities in relation to the gender perspective, a co-educational dynamic is carried out that avoids the predisposition of differential treatment, role attributions or assumptions of abilities determined by gender.

The MISU and DUA will be applied to all ESDAPC students. Those students in need of additional measures and support will be included through an Individualized Support Plan.

9. Copying, plagiarism, and academic honesty

From a legal point of view, plagiarism is an infringement of copyright.

The ESDAPC NOFC describes in section 5.4 irregular conduct in the evaluation procedure, which includes copying or plagiarism in any academic activity.

10. Use of Artificial Intelligence (AI)

The ESDAPC recognizes the value of Artificial Intelligence (AI) in the educational field, while highlighting the risks it entails if it is not used ethically, critically and responsibly. The use of AI in the teaching and evaluation context is governed by the principles, criteria and recommendations established in the ESDAPC Guide to the Ethical and Responsible Use of Artificial Intelligence, which constitutes the institutional reference document

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in this matter.

In this sense, in each assessment activity, students will be informed about the AI tools and resources that can be used and under what conditions, recommending their use as an assistance tool during the research, analysis or conceptual exploration process, but not as a replacement for their own work or professional judgment.

For their part, students undertake to follow the instructions of the ESDAPC when carrying out the assessment activities, as well as the criteria included in the Guide for the Ethical and Responsible Use of AI. Within this framework, students must transparently cite the AI tools used and explicitly identify texts, images or other content generated with AI systems, which may not be presented as their own production.

Misuse of Artificial Intelligence can seriously affect the evaluation of assessment activities. In case of doubt, it is recommended that students consult the teacher responsible for the subject before submitting.

The specifics of the use of Artificial Intelligence in each subject—including the authorized tools, conditions of use and associated evaluation criteria— will be defined in the classroom programming, where teachers will contextualize the Teaching Guide and the Guide for the Ethical and Responsible Use of AI based on the objectives, skills and methodologies of the subject.

In all cases, students are responsible for any possible errors, omissions or biases that may be generated by the Artificial Intelligence used in the work process.

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11. Sources of information and teaching resources

Basic bibliography

Books

“Graphic design: fundamentals and applications” – Gavin Ambrose, Paul Harris

Explains basic principles of visual design, composition and typography. Useful for business cards and link pages.

Gustavo Gili Publishing House.

“HTML and CSS: Website Design and Construction” – Jon Duckett

Very visual and easy to understand, ideal for those starting to design web pages.

Editorial Anaya Multimedia.

“PHP y MySQL para Dummies” – Janet Valade

A clear and progressive introduction to web development with PHP and MySQL databases.

Editorial For Dummies.

“Information design” – Jorge Frascara

Ideal for reflecting on how to structure content visually to make it accessible and effective.

Websites and digital resources

<https://developer.mozilla.org/es/> (MDN Web Docs): Essential reference for HTML, CSS, JavaScript and web accessibility.

<https://php.net/> Official PHP documentation, with clear examples.

<https://www.mysql.com/> Official MySQL portal, with guides for installing and connecting.

<https://www.qrcode-monkey.com/es> Highly customizable QR code generator for use in activities.

<https://carrd.co/> the <https://linktr.ee/> Easy platforms to create one link page with a single, clean visual link.

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12. Training activity sheets

ACTIVITY 1	Duration: 4 weeks	Weighting:30%
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Description of the activity

Development of an interactive system based on a web form accessible via QR code, which allows the collection of data from real users, its storage in a MySQL database and subsequent visualization in a web environment.

The activity introduces students to the complete flow of user-form-database-interface interaction, and aims to acquire the technical and conceptual foundations necessary for the development of the final project.

Contents

- Web forms and data entry systems.
- User-oriented form design.
- Databases: tables, fields and basic structure.
- PHP programming applied to data management.
- Data visualization in web environments.
- QR codes as a system for accessing interactive content.

Skills

CT-03, CT-04,
CG-20, GRA-11

Applied teaching methodologies

MD1, MD2,
MD5, MD8,
MD9, MD10

Learning outcomes

RA-02	Structure the data of an interactive project by designing databases consistent with its functionality.
RA-03	Implement data entry and visualization systems in web environments using PHP and MySQL databases.

Continuous evaluation

Specific evaluation criteria within continuous evaluation

- Adaptation of the form to the project objectives.
- Correction and consistency of the database structure.

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- Correct functioning of the data entry and display system.
- Coherent integration between interface, data and programming.
- Ability to resolve technical problems.

Evaluation instruments within continuous evaluation

- Project-specific rubrics.
- Application exercises and technical practices.
- Direct observations and observation records.
- Individual and/or group feedback, oral and/or written.
- Self-evaluation of the work process.

Specific recovery criteria within continuous assessment

The same specific evaluation criteria are maintained.

Students must correct or complete the unachieved aspects of the project according to the teacher's instructions.

Recovery outside of continuous assessment

Specific recovery criteria outside of continuous assessment

Students must submit the corrected project, meeting all established functional and technical requirements, within the recovery period defined by the professor.

Recovery instruments outside of continuous assessment

Corrected and completed practical project.

Complementary practical test, if applicable.

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ACTIVITY 2	Duration: 12 weeks	Weighting: 70%
Description of the activity		
Design and development of an interactive social network-type web application, limited to the ESDAPC community, using PHP and MySQL. The project integrates interface design, data management, programming, publication on a real server and the development of a basic dissemination strategy using QR codes and social networks. The activity is presented as a global project that simulates a real professional assignment.		
Contents		
• Interface design for interactive systems. • Adaptation of HTML websites to dynamic environments with PHP. • Databases applied to systems with users and content. • PHP programming for interactive web applications. • Data, interface and system integration. • Web publishing on a real server. • Basic digital dissemination strategies with QR and social networks.		
Skills		
CT-01, CT-03, CG-01, GRA-01		
Applied teaching methodologies		
MD1, MD2, MD5, MD6, MD7, MD8, MD9, MD10, MD11, MD12		
Learning outcomes		
RA-01	Design interactive interfaces for web environments using functional prototypes aligned with the project objectives.	
RA-04	Develop an interactive web application integrating interface, data and programming into a functional system.	

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RA-05	Publish and manage interactive projects on a real web server, verifying their operation.
RA-06	Design and apply a basic dissemination strategy for an interactive project using QR codes and social networks.
RA-07	Critically evaluate the project developed, identifying its effectiveness and possible improvements.

Continuous evaluation

Specific evaluation criteria within continuous evaluation

- Quality of interface design and user experience.
- Global functionality of the developed web application.
- Consistent integration of data, interface and programming.
- Correct publication and operation on a real server.
- Adaptation of the dissemination strategy.
- Capacity for critical analysis and project improvement.

Evaluation instruments within continuous evaluation

- Project-specific rubrics.
- Continuous monitoring of the work process.
- Direct observations and observation records.
- Individual and/or group feedback, oral and/or written.
- Presentation and defense of the project.
- Self-evaluation and co-evaluation (if the project is in a group).

Specific recovery criteria within continuous assessment

The same specific evaluation criteria are maintained.
Students must correct or complete the unachieved aspects of the project according to the teacher's instructions.

Recovery outside of continuous assessment

Specific recovery criteria outside of continuous assessment

Students must submit the corrected project, meeting all established functional and technical requirements, within the recovery period defined by the professor.

Recovery instruments outside of continuous assessment

Corrected and completed practical project.
Complementary practical test, if applicable.