



## **FICHA DE UNIDADE CURRICULAR**

### **Unidade Curricular**

201821000 - PROJETO DE INTERAÇÃO I

### **Tipo**

Obrigatória

Ano lectivo	Curso	Ciclo de estudos	Créditos
2025/26	Mestrado Design de Interação	2º	10.00 ECTS

Idiomas	Periodicidade	Pré requisitos	Ano Curricular / Semestre
Português ,Inglês	semestral		1º / 1º

### **Área Disciplinar**

Design

### **Horas de contacto (semanais)**

Teóricas	Práticas	Teórico práticas	Laboratoriais	Seminários	Tutoriais	Outras	Total
0.00	0.00	9.00	0.00	0.00	0.00	0.00	9.00

### **Total Horas da UC (Semestrais)**

Total Horas de Contacto	Horas totais de Trabalho
126.00	250.00

### **Docente responsável (nome / carga lectiva semanal)**

Marco António Neves da Silva

### **Outros Docentes (nome / carga lectiva semanal)**

Marco António Neves da Silva	3.00 horas
Francisco dos Santos Rebelo	1.00 horas
Paulo Ignácio Noriega Pinto Machado	1.00 horas
Ana Sofia Moniz Mendonça Pinto de Melo	3.00 horas
Sónia Rafael	1.00 horas

### **Objetivos de aprendizagem (conhecimentos, aptidões e competências a desenvolver pelos estudantes)**

Fomentar a contextualização da área do Design de Interação e do seu âmbito de ação, estimulando o pensamento criativo.

Capacitar o desenvolvimento e realização de projeto em design de interação, de um modo informado e crítico.

Permitir a aquisição de conhecimentos sobre os conceitos e as referências desta área, dominando os elementos e os princípios, sua importância e finalidade.

A unidade curricular centra a atenção na metodologia do projeto de artefactos e sistemas interativos, desvinculados de imposição tecnológica, para que esse conhecimento auxilie os alunos na escolha de área(s) onde pretendam aperfeiçoar competências mais específicas e que serão prosseguidas em Projeto de Interação II e III.

## **Conteúdos Programáticos / Programa**

Contextualização do Design de Interação e de áreas adjacentes, observando a relação com a tecnologia, com a presença humana e a definição de comportamentos.

A compreensão do Design de Interação passará pelos seus princípios, dimensões e elementos.

Será abordado o processo em Design de Interação e suas principais fases, através de métodos de recolha e pesquisa; definição de situações e requisitos para desenvolvimento de projeto; métodos de conceção e avaliação.

Nas diversas fases invocam-se os meios necessários, com referência aos tipos de interação, bem como as ferramentas de registo gráfico, de simulação interativa e de comunicação audiovisual.

## **Demonstração da coerência dos conteúdos programáticos com os objectivos de aprendizagem da unidade curricular**

Os conteúdos programáticos permitem conhecer, desenvolver e adaptar processos para produção de interação.

O pensamento e a criação crítica, acompanhada da diversidade de etapas pretende aproximar os conhecimentos e competências a adquirir, de noções alargadas de interação, bem como das suas vantagens junto dos potenciais utilizadores.

O conhecimento dos princípios e a gestão dos elementos a incorporar nos trabalhos a desenvolver, em simultâneo com a experimentação de diferentes media, permitirá entender a prática ampla do design de interação.

## **Metodologias de ensino (avaliação incluída)**

### Metodologias

- Aulas de exposição de conteúdos, apresentando referências através de projeção, incentivando a participação de todos os alunos.
- Aulas práticas de desenvolvimento de trabalho individual. Em cada uma destas sessões será feito acompanhamento individual, através da exposição dos alunos e discussão em torno das ideias e resultados evidentes no momento.
- Aulas de apresentação e discussão dos resultados. Estas sessões estabelecem um balanço onde devem ser mencionados aspectos a alterar ou melhorar à totalidade das evidências expostas.

## Avaliação

A avaliação será contínua, tendo como elementos de avaliação um exercício de grupo, um projeto individual constituído por 3 fases e uma apresentação final. O exercício de grupo tem uma ponderação de 5%, o projeto individual tem como ponderações: Fase 1 - 10%, Fase 2 - 20%, Fase 3 - 15% e a apresentação final contará 50% da avaliação contínua. No início do semestre é entregue um cronograma com todas as fases de trabalho, bem como a sua calendarização rigorosa.

Os critérios de avaliação encontram-se nos enunciados de cada elemento de avaliação. Contudo, todos os momentos de acompanhamento dos projetos constituem situações de reflexão e aprendizagem. Estes momentos são determinados pela criatividade, inovação e demonstração de conhecimentos, aos quais se juntam a argumentação e apresentação.

São também fatores de ponderação a assiduidade e a participação. Para acesso à avaliação contínua, é obrigatória uma assiduidade mínima de 60% das aulas lecionadas para estudantes em regime normal e 30% para estudantes com estatuto especial. Estes limites asseguram a participação efetiva no processo de ensino-aprendizagem e a validação das competências práticas.

É obrigatória a presença de todos os alunos em exame, salvaguardando-se o disposto no Regulamento de Avaliação do Aproveitamento dos Estudantes.

## **Demonstração da coerência das metodologias de ensino com os objectivos de aprendizagem da unidade curricular**

É importante definir e aplicar processos de trabalho individual e em grupos, que considere situações identificadas ou especulativas, numa articulação com opções de produção interativa. Assim, o estímulo ao pensamento e criação crítica, a análise de processos já usados, o contacto com os meios e ferramentas de suporte, beneficiam o desenvolvimento de projetos e permitem acumular experiência.

## **Bibliografia Principal**

- Benyon, D. (2010). *Designing Interactive Systems: A Comprehensive Guide to HCI and Interaction Design*. Pearson, Edinburgh.
- Bolter, J & Gromala, D (2003). 'Text Rain: The Digital Experience', in *Windows and Mirrors: Interaction Design, Digital Art, and the Myth of Transparency*. Cambridge MA: MIT Press.
- Buxton, B. (2007). *Sketching User Experiences: Getting the Design Right and the Right Design*, San Francisco: Morgan Kaufman.
- Cooper, A, Reimann, R & Cronin, D (2007). *About Face 3: The Essentials of Interaction Design*, Indianápolis: Wiley Publishing.
- Dourish, P., (2001). *Where the Action is: The Foundations of Embodied Interaction*. Cambridge, Massachussets, London, England: The MIT Press.
- Dubberly,H., Haque,U., Pangaro,P. (2009). 'What is Interaction? Are there Different Types? in <http://www.dubberly.com/articles/what-is-interaction.html>
- Garrett, J. J., (2011). *The Elements of User Experience: User-Centered Design for the Web and Beyond*, New Riders, Berkeley
- Höök, K., & Löwgren, J. (2021). Characterizing interaction design by its ideals: A discipline in transition. *She Ji: The Journal of Design, Economics, and Innovation*, 7(1), 24-40.

- Moggridge, B (2007). Designing Interactions, Cambridge and London: The MIT Press.
- Moggridge, B. (2010) Designing Media, The MIT Press, Cambridge and London.
- Preece, J., Rogers, Y., & Sharp, H. (2002). Interaction Design: Beyond Human-computer Interaction. New York: John Wiley & Sons, Inc.
- Saffer, D (2007), Designing for Interaction: Creating Smart Applications and Clever Devices, 2nd edition, Berkeley, Califórnia: New Riders.
- Tidwell, J. (2011). Designing Interfaces: Patterns for Effective Interaction Design (2nd Ed.). O'Reilly
- Wiberg, M. (2018). The materiality of interaction: Notes on the materials of interaction design. MIT press.

## Bibliografia Complementar

- Arvola, M. & Artman, H. (2007) Enactments in Interaction Design: How Designers Make Sketches Behave. *Artifact*, 1(2): 106-119.
- Battarbee, K., & Koskinen, I. (2005). Co-experience: User Experience as Interaction. *CoDesign*, 5-18
- Blevis, E. & Stolterman, E. (2008) The Confluence of Interaction Design & Design: From Disciplinary to Transdisciplinary Perspectives. Proceedings of DRS2008, Design Research Society Biennial Conference, Sheffield, UK, 16-19 July, 344/1--12.
- Bonsiepe, G (1999). Interface: An Approach to Design, Maastricht: Jan van Eyck Akademie.
- Buchanan, R. (1992). Wicked Problems in Design Thinking. *Design Issues* 8(2), 5-22.
- Colborne, G. (2017). Simple and Usable Web, Mobile, and Interaction Design. 2ed. Berkeley, CA: New Riders.
- Coughlan, P., Fulton Suri, J. & Canales, K. (2007). Prototypes as (Design) Tools for Behavioral and Organizational Change: A Design-Based Approach to Help Organizations Change Work Behaviors. *The Journal Of Applied Behavioral Science*, 43 (1), March 2007, 1-13.
- Forlizzi, J. e Ford, S. (2000). The Building Blocks of Experience: An Early Framework for Interaction Designers, DIS '00, Brooklyn, New York, USA.
- Forlizzi, J. e Battarbee, K. (2004). Understanding Experience in Interactive Systems. DIS2004, August 1-4, 2004, Cambridge, Massachusetts, USA.
- Goodwin, K. (2009). Designing For The Digital Age: How to Create Human-Centered Products and Services. Indianapolis, Indiana: Wiley Publishing, Inc.
- Grudin, J., (2007). A Moving Target: The Evolution of Human-computer Interaction. In Andrew Sears and Julie A. Jacko (Eds.). *Human-computer Interaction Handbook: Fundamentals, Evolving Technologies, and Emerging Applications*. (3rd edition). Taylor & Francis.
- Hallnäs, L & Redström, J (2006). Interaction Design: Foundations, Experiments, Borås: The Interactive Institute, The Swedish School of Textiles, University College of Borås.
- Heeter, C (2000). 'Interactivity in the Context of Designed Experiences', *Journal of Interactive Advertising*, 1(1). American Academy of Advertising, pp.4-15.
- Kolko, J. (2011). Thoughts on Interaction Design. Burlington: Morgan Kaufmann.
- Krishna, G. (2015). The best Interface is no Interface: The Simple Path to Brilliant Technology. USA: New Riders.
- Löwgren, J. & Reimer, B. (2013). The Computer is a Medium, Not a Tool: Collaborative Media Challenging Interaction Design. *Challenges*, 4, 86-102.
- Löwgren, J. e Stolterman, E. (2004). Thoughtful Interaction Design: A Design Perspective on

- Information Technology. MIT Press.
- Redstrom J. (2005). Towards User Design? On the Shift from Object to User as the Subject of Design. *Design Studies*, 27 (2), 123-139
- Sanders, E., Stappers, P. (2008). Co-creation and the New Landscapes of Design. *CoDesign International Journal of CoCreation in Design and the Arts* 4(1), 5-18.
- Shneiderman, B. e Plaisant, C., (2004). Designing the User Interface: Strategies for Effective Human-computer Interaction. 4a Ed., Boston: Pearson/Addison Wesley.



## CURRICULAR UNIT FORM

**Curricular Unit Name**

201821000 - Interaction Projetc I

**Type**

Compulsory

<b>Academic year</b>	<b>Degree</b>	<b>Cycle of studies</b>	<b>Unit credits</b>
2025/26	Master Interaction Design	2	10.00 ECTS

<b>Lecture language</b>	<b>Periodicity</b>	<b>Prerequisites</b>	<b>Year of study/ Semester</b>
Portuguese ,English	semester		1 / 1

**Scientific area**

Design

**Contact hours (weekly)**

Tehoretical	Practical	Theoretical-practicals	Laboratory	Seminars	Tutorial	Other	Total
0.00	0.00	9.00	0.00	0.00	0.00	0.00	9.00

**Total CU hours (semester)**

<b>Total Contact Hours</b>	<b>Total workload</b>
126.00	250.00

**Responsible teacher (name /weekly teaching load)**

Marco António Neves da Silva

**Other teaching staff (name /weekly teaching load)**

Marco António Neves da Silva	3.00 horas
Francisco dos Santos Rebelo	1.00 horas
Paulo Ignácio Noriega Pinto Machado	1.00 horas
Ana Sofia Moniz Mendonça Pinto de Melo	3.00 horas
Sónia Rafael	1.00 horas

**Learning objectives (knowledge, skills and competences to be developed by students)**

Foster the contextualization of the Interaction Design area and its scope of action, stimulating creative thinking.

Enable development and accomplishment of interaction design projects, in an informed and critical way.

Allow acquisition of knowledge about the concepts and references in this area, mastering elements and principles, their importance and purpose.

The curricular unit focuses on design methodology for interactive artefacts and systems, unrelated to technological imposition, so that this knowledge helps students in choosing the area(s) where they intend to improve more specific skills and which will be pursued in Interaction Project II and III.

## Syllabus

Contextualization of Interaction Design and adjacent areas, observing the relationship with technology, with human presence and the definition of behaviors.

Understanding of Interaction Design will be done through its principles, dimensions and elements.

The process in Interaction Design and its main phases will be addressed, through collection and research methods; definition of situations and requirements for project development; design and evaluation methods.

In the different phases, necessary means are invoked, with reference to types of interaction, as well as tools for graphic recording, interactive simulation and audiovisual communication.

## Demonstration of the syllabus coherence with the curricular unit's learning objectives

The syllabus allows knowing, developing and adapting processes to produce interaction.

Critical thinking and creation, accompanied by the diversity of stages, aims to bring knowledge and skills to be acquired closer together with broader notions of interaction, as well as its advantages with potential users.

The knowledge of principles and management of elements to be incorporated in the work to be developed, simultaneously with experimentation of different media, will allow us to understand the wide practice of interaction design.

## Teaching methodologies (including evaluation)

### Methodologies

- Content exposure classes, presenting references through projection, encouraging the participation of all students.
- Practical classes for developing individual work. In each of these sessions, individual monitoring will be carried out, through the presentation of students and discussion around the ideas and results evident at the moment.
- Presentation classes and discussion of results. These sessions establish a balance in which aspects to be changed or improved must be mentioned in the totality of the evidence presented.

### Assessment

Assessment will be continuous, with the assessment elements being a group exercise, an individual project consisting of three phases, and a final presentation. The group exercise is

weighted 5%, the individual project is weighted as follows: Phase 1 - 10%, Phase 2 - 20%, Phase 3 - 15%, and the final presentation will account for 50% of the continuous assessment. A schedule with all the work phases and a strict timetable is provided at the beginning of the semester.

The assessment criteria are listed in the briefings for each assessment element. However, all project tutoring sessions constitute opportunities for reflection and learning. These moments are determined by creativity, innovation, and demonstration of knowledge, in addition to argumentation and presentation.

Attendance and participation are also weighted factors. To access continuous assessment, a minimum attendance of 60% of classes is mandatory for regular students and 30% for students with special status. These limits ensure effective participation in the teaching-learning process and the validation of practical skills.

The presence of all students in the exam is mandatory, subject to the provisions of the Student Achievement Assessment Regulations.

## **Demonstration of the coherence between the Teaching methodologies and the learning outcomes**

It is important to define and apply individual and group work processes, which consider identified or speculative situations, in conjunction with interactive production options. Thus, stimulus to critical thinking and creation, analysis of processes that have already been used, and contact with means and support tools, will benefit the development of projects and allow for the accumulation of experience.

## **Main Bibliography**

- Benyon, D. (2010). Designing Interactive Systems: A Comprehensive Guide to HCI and Interaction Design. Pearson, Edinburgh.
- Bolter, J & Gromala, D (2003). 'Text Rain: The Digital Experience', in Windows and Mirrors: Interaction Design, Digital Art, and the Myth of Transparency. Cambridge MA: MIT Press.
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## **Additional Bibliography**

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