

ECTS Information Package: Degree Programme

Bachelor's degree in

DESIGN AND GRAPHIC ARTS

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A - General Description

Programme Title - Design e Tecnologia das Artes Gráficas

Qualification awarded - Bachelor's degree in Design and Graphic Arts

Level of qualification - First-Cycle degree, ISCED Level 5, EQF Level 6

Specific admission requirements

General

In order to be eligible to this bachelor's degree, students must hold the high-school diploma or legally equivalent qualification. Application can also be made through the following special entry routes:

- Students coming from the Portuguese education system through re-admission, degree change and transfer schemes;
- Holders of a Foundation Course Diploma (CET);
- Adults aged more than 23 who have passed tailor-made examinations intended to assess their ability to pursue higher education studies;
- Holders of Intermediary or Graduate degree diplomas;
- Students coming from foreign higher education.

Specific

To be accepted for entry in the bachelor's degree in Design and Graphic Arts Technology one of the following national entry examinations is required:

Drawing (03); Descriptive Geometry (10); History of Culture and Arts (12)

Regional Preferences: (30% of total vacancies) Lisbon, Leiria, Portalegre, Santarém and Setúbal.

Specific arrangements for recognition of prior learning (formal, non-formal and informal)

General

Procedures on the recognition of credits gained in previous learning are established in the regulations for the Recognition and Validation of Qualifications and Skills of ESTT-IPT available at <http://webmanager.ipt.pt/mgallery/default.asp?obj=4535>

Specific

Not applicable.

Qualification requirements and regulations:

180 ECTS credits distributed across 6 curricular semesters (3 years), each with 40 weeks of full-time study (20 weeks per semester).

Total study hours per year: 1620 (1 ECTS credit = 27 study hours). The course structure comprises 6 compulsory modules per semester.

Profile of the program:

The Design and Graphic Arts Technology programme is designed according to a multifaceted consistent profile and covers a wide range of subjects from graphic technologies and communication design. It aims to deliver designers and top managers for institutions or enterprises involved in the design, production, management and research of graphic objects. Understanding technologies and graphic processes, management systems and methods and budgeting, information and communication technologies and multimedia is a crucial condition for the designer and graphic technician profile inherent to this academic cycle. This programme was designed so as to facilitate access, not only to the labour world, but also to second-cycle programmes of study, namely the Master's degree in Editorial Technologies from ESTT.

Key learning outcomes:

On completion of the bachelor's degree in Design and Graphic Arts Technology the students must have acquire the following skills:

Academic skills:

- Communication and representation abilities in such areas as traditional, digital, and multimedia graphics.
- Be familiar with project and work organisation methods.
- Have general knowledge of graphic culture, social sciences and exact sciences.
- Have a good command of graphic technologies.
- Have consolidated knowledge of production planning and organisation as well as quality control and management.
- Have analysis and synthesis skills in the context of communication design .
- Have professional development skills.

Instrumental skills:

- Understand and be able to use the various technological tools and desktop publishing software as well as software for image processing, vectorial drawing, webdesign and multimedia.
- Be able to use pre-press, press and finishing materials, processes and techniques.
- Have management and budgetary skills.

Interpersonal skills:

- Have interpersonal relationships and multidisciplinary work skills.
- Have leadership and cooperation abilities.
- Have creativity and initiative.
- Be able to join any graphic and design company - versatility and adaptability.

Systemic skills:

- Have a global overview of design and graphic technologies and the possibilities in terms of acting strategies.
- Develop technical and creative thinking and be capable of innovating and furthering knowledge.

Occupational profiles of graduates with examples:

- professionals for graphic companies:
top management positions in sectors such as production, commercial, quality, planning, budgets and stocks.
- professionals for graphic design related areas:
communication designer, webdesigner and multimedia designer.

Access to further studies:

The licenciado degree in Design and Graphic Arts Technologies allows access to postgraduate programmes according to the admission regulations established for those programmes. At the School of Technology Tomar (ESTT) this programme gives access to the Master's in Editorial Design.

Course structure diagram with credits

Course Title	Year	Semester	Credits
Drawing	1	S1	3
Electronic Edition	1	S1	5.5
Graphic Technology	1	S1	7
History of Communication Arts	1	S1	4
Image Processing	1	S1	5
Psychology of Visual Perception	1	S1	5.5
Applied Chemistry	1	S2	5
Colour Physics	1	S2	3
Graphic Design I	1	S2	6
Image Analysis	1	S2	4.5
Photography	1	S2	4.5
Prepress	1	S2	7
Communication Ergonomics	2	S1	4
Design Theory	2	S1	4.5
Graphic Design II	2	S1	6
Marketing	2	S1	4
Printing - offset I	2	S1	7
Production Management	2	S1	4.5
Graphic Design III	2	S2	6
Multimedia Design I	2	S2	5
Packaging and Processing	2	S2	5
Premedia	2	S2	3
Printing - Offset II and Pad Printing	2	S2	6
Quality Control	2	S2	5
Digital Printing	3	S1	3
Graphic Design IV	3	S1	6
Multimedia Design II	3	S1	5
Postpress	3	S1	6
Quality Management	3	S1	4

Course structure diagram with credits (cont.)

Course Title	Year	Semester	Credits
Screenprinting	3	S1	6
Conservation of Graphic Documentation	3	S2	5
Final Project	3	S2	7.5
Graphic Design Pricing	3	S2	5
Management and Strategy	3	S2	4.5
Multimedia Design III	3	S2	5
Organizational Behaviour	3	S2	3

Examination regulations, assessment and grading

General

General assessment rules are in line with the Portuguese law and described in the Academic Regulations of ESTT-IPT available at <http://webmanager.ipt.pt/mgallery/default.asp?obj=4538>.

The licenciado degree is awarded a final grade between 10 and 20 within a 0/20 scale as well as its equivalent in the European grading scale.

Specific

Not applicable.

Graduation requirements:

Completion of the program requires successful completion of all its constituent modules.

Mode of study:

Full- or part-time.

Program director or equivalente

Director: Maria João Bom Mendes dos Santos

Erasmus coordinator: João Manuel de Sousa Nunes Costa Rosa

ECTS coordinator: Paula Alexandra Costa Leite Pinto Pereira

B - Description of individual course units

Course unit title	Drawing
Course unit code	96441
Type of course unit	Compulsory
Level of Course unit	First Cycle
Year of Study	First Year
Semester/Trimester when the course unit is delivered	First Semester
Number of ECTS credits allocated	3
Name of Lecturer(s)	João Manuel de Sousa Nunes Costa Rosa
Learning outcomes of the course unit	Students must be able to: 1.Observe/interpret 2.Manipulate the syntax of expression 3.Adapt composition to communication 4.Find solutions by levelling 5.Represent according to model, type, concept meaning 6.Demonstrate graphic culture 7.Use the right terms 8.Demonstrate critical skills
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Graphic and analysis skills Be familiar with plastic and visual expression Basics of fine arts and design history
Recommended optional programme components	Not applicable.
Course contents	I Expression II Struture III Configuration IV Dimension V Dynamics VI Quality VII Demarcation VIII Other expression and composition elements IX Graphic culture X Drawing types XI Iconicity XII Iconogram an pictogram XIII Schematic XIV Content
Recommended or required Reading	<ul style="list-style-type: none"> - Cossette, C.(1983). <i>Les images démaquillés. Approche scientifique de la communication par l'image</i>. Québec: Les Éditions Riguil Internationales - Acaso, M.(2006). <i>El Lenguaje Visual</i>. Barcelona: Paidós - Dondis, D.(1997). <i>A Sintaxe da Linguagem Visual</i>. São Paulo: Martins Fontes - Pipes, A.(2008). <i>Fondantions of art and design</i>. Londres: Laurence King Publishing.
Planned learning activities and teaching methods	A)Lectures B)Case presentation and analysis C)Drawing process; experimental exercises to solve specific problems D)Debate to reach solutions
Assessment Methods and criteria	Continuous assessment Product process: representation/drawing Compliance with exercise-related instructions, tasks, deadlines and objectives Mid-term test Final Examination Resit examination
Language of Instruction	Portuguese Mentoring in English
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	Electronic Edition
Course unit code	964442
Type of course unit	Compulsory
Level of Course unit	First Cycle
Year of Study	First Year
Semester/Trimester when the course unit is delivered	First Semester
Number of ECTS credits allocated	5.5
Name of Lecturer(s)	Rui Miguel Sardinha Proença
Learning outcomes of the course unit	Students should learn the key tools and concepts in the field of electronic text processing and vector drawing and be able to apply them to graphic design and technology.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Basic knowledge of computer and digital imaging
Recommended optional programme components	Not applicable
Course contents	- Introduction to Informatics. - Concepts of hardware and software. - Digital imaging; distinction between bitmap and vector images. - Edition and production of vector images (introduction to specific software) - Colour modes, models and systems
Recommended or required Reading	- Adobe Creative Team, .(2012). <i>Adobe Illustrator CS6: Classroom in a book</i> . New Jersey: Adobe Press - Adobe Creative Team, .(2012). <i>Adobe Illustrator CC Classroom in a Book</i> . New Jersey: Adobe Press - Adobe Creative Team, .(2010). <i>Adobe Illustrator CS5: Classroom in a book</i> . New Jersey: Adobe Press - LÉLIS, C.(2009). <i>Illustrator CS3 & CS4 - Curso Completo</i> . Lisboa: FCA - Editora de Informática, Lda.
Planned learning activities and teaching methods	Lectures supported by audiovisual resources. Execution of practical exercises throughout the semester. Document creation, edition and preparation.
Assessment Methods and criteria	Ongoing assessment: 2/3 attendance. Exempt from taking exam: minimum mark of 10/20. Practical assignments. Excluded from final assessment: 2/3 attendance and
Language of Instruction	Portuguese Mentoring in English
Work placement(s)	Not applicable

B - Description of individual course units

Course unit title	Graphic Technology
Course unit code	964443
Type of course unit	Compulsory
Level of Course unit	First Cycle
Year of Study	First Year
Semester/Trimester when the course unit is delivered	First Semester
Number of ECTS credits allocated	7
Name of Lecturer(s)	Regina Aparecida Delfino Vitor Dinis Carita de Jesus Paula Alexandra Costa Leite Pinto Pereira
Learning outcomes of the course unit	Learn the basics of the production phases in the printing industry and graphic reproduction systems. Master the engraving and etching techniques Master letterpress hand setting and typesetting techniques.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Not applicable.
Recommended optional programme componentes	Not applicable.
Course contentes	•Work flow of the printing industry: pre-press, printing, postpress. Orig.: image/text. •Conventional Printing (Letterpress and flexography, offset, gravure and Pad Print., Screen Print.) and Digital Print. Print. forms. •Technical processes of engraving: woodcut, lithograph, drypoint, intaglio, mezzotint, etching, aquatint and soft varnish. •Typesetting: typometry, typology and classification
Recommended or required Reading	- CATAFAL, J. e OLIVA, C. (1996). <i>A Gravura</i> . Lisboa: Editorial Estampa - HEITLINGER, P.(2006). <i>Tipografia, origens, formas e uso das letras</i> . Lisboa: Dinalivro - JOHANSSON, K. e LUNDBERG, P. e RYBERG, R. (2004). <i>Manual de producción gráfica. Recetas</i> . Barcelona: Editorial Gustave Gili, SA. - KIPPAN, H.(2001). <i>Handbook of print media: technologies and production methods</i> . Heidelberg: Springer
Planned learning activities and teaching methods	•Presentation of theoretical contents using audiovisual resources. Discussion/analysis and comparison of printed items. •Field trip •Engraving: practical projects with etching. •Typesetting: hand setting exercises.
Assessment Methods and criteria	Continuous asses.: theoretical written test, attendance and practical lab projects Final asses.: attend. 2/3 of classes and min.mark 10/20 on projects. Theoretical exam. Overall grade: arithmetic average of all assessment tasks (min. mark 10/20)
Language of Instruction	Portuguese Mentoring in English
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	History of Communication Arts
Course unit code	964457
Type of course unit	Compulsory
Level of Course unit	First Cycle
Year of Study	First Year
Semester/Trimester when the course unit is delivered	First Semester
Number of ECTS credits allocated	4
Name of Lecturer(s)	Maria Madalena Giraldes Barba Pessoa Jorge Oudinot Larcher
Learning outcomes of the course unit	Students should: 1. become acquainted with the broad lines of design history in graphic arts including the key developments in art and communication and the various forms of graphic illustration; 2. get familiar with the major phases of the history of book; 3. be able to write a monograph.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Not applicable
Recommended optional programme components	Not applicable
Course contents	1. Preliminaries: Communication, Language (and Languages), Symbols 2. Graphic verbal language: written and non-written 3. Art in graphic arts: general aspects; Art in time; The various forms of graphic arts (Illuminated manuscripts, Etchings, Photographs) 4. The history of book: in Antiquity; in the Middle Ages; from the fifteenth to the eighteenth century (from print revolution to Enlightenment); 5. Methodological guidelines for the preparation of the monograph.
Recommended or required Reading	- BACKHOUSE, J.(1979). <i>The Illuminated Manuscript</i> . (Vol. 1). Singapura: Hardback BOOK - BOLOGNA, G.(2000). <i>Illuminated Manuscripts, The Book Before Gutenberg</i> . (Vol. 1). Milão: London : Thames and Hudson - Svend, D.(1994). <i>Historia del Libro</i> . Madrid: Alianza Editorial - FEBVRE, L.(2000). <i>O Aparecimento do Livro</i> . Lisboa: Fundação Gulbenkian
Planned learning activities and teaching methods	1. Lectures using datashow and critical analysis of documentary material. 2. Methodological guidelines for the preparation of monograph and tutorial support.
Assessment Methods and criteria	Students must take a mid-term test and write a monograph (each contributing 50% of the final grade). An average mark of 10/20 exempts students from end-of-term exam. The monograph work should conform to the guidelines provided in class and to deadlines
Language of Instruction	Portuguese
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	Image Processing
Course unit code	964413
Type of course unit	Compulsory
Level of Course unit	First Cycle
Year of Study	First Year
Semester/Trimester when the course unit is delivered	First Semester
Number of ECTS credits allocated	5
Name of Lecturer(s)	Célia Maria Nunes Barreto
Learning outcomes of the course unit	1) Develop specific skills in image processing software; 2) Optimize images according to the type of work; 3) Process, retouch and correct images; 4) Select and manipulate images; 5) Restore deteriorated and/or damaged images.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Not applicable.
Recommended optional programme components	Not applicable.
Course contents	1. Image Formats 2. Basic Corrections 3. Image edition, processing and retouching 4. Selection Tools 5. Image layers 6. Image manipulation 7. Advanced manipulation and retouching
Recommended or required Reading	- DANAHER, S.(2003). <i>Adobe Photoshop Every tool explained!</i> . London: Future Publishing Ltd - LYNCH, R.(2007). <i>The Adobe Photoshop Layers Book</i> . USA: Elsevier Ltd - BEARDSWORTH, J.(2005). <i>Photoshop Blending Modes Cookbook for Digital Photographers</i> , . East Sussex, UK: Ilex Press Limited
Planned learning activities and teaching methods	1. Theoretical and practical illustration of the course content. 2. Practical exercises supported by continuous monitoring
Assessment Methods and criteria	Continuous assessment: classroom exercises with the software and two individual end-of-term exercises; Final weighting is: 50% continuous assessment; 25% exercise A; 25% exercise B. The exam is a practical test.
Language of Instruction	Portuguese Mentoring in English
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	Psychology of Visual Perception
Course unit code	96443
Type of course unit	Compulsory
Level of Course unit	First Cycle
Year of Study	First Year
Semester/Trimester when the course unit is delivered	First Semester
Number of ECTS credits allocated	5.5
Name of Lecturer(s)	Isabel Maria da Cruz Ferreira
Learning outcomes of the course unit	-Describe the functioning of visual system. -Provide knowledge of perception organization. -Identify colour characteristics in psychological and psycho-sociological terms -Promote ability to represent the basic principles of good shape. -Promote reflection about colour combinations
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Not applicable.
Recommended optional programme componentes	Not applicable.
Course contentes	1.Conceptual delimitation 2.Perception and knowledge (visual memory and visual thinking 3.Neurophysiology of sight 4.The Gestalt theory and the fundamental laws of perceptive grouping 5.Subjective outlines and visual illusions 6.Shadows 7.Colour and colour combinations (contrast and analogy) main characteristics 8.Colour and legibility 9.Colour expression (psychological and psycho-sociological)
Recommended or required Reading	- ARNHEIM, R.(1994). <i>Arte e percepção visual</i> . São Paulo: Editora Arte, arquitectura e urbanismo. - GLEITMAN, H.(2003). <i>Psicologia</i> . Lisboa: F. Calouste Gulbenkian - ITTEN, J.(1991). <i>Art de la couleur..</i> Paris: Dessain e Tolra - MONTCHAUD, R.(1994). <i>La couleur et ses accords..</i> Paris: Fleurus Idées
Planned learning activities and teaching methods	Lectures using datashow. Theoretical-practical classes including experiments, problem solving, case study and literature review.
Assessment Methods and criteria	Two mid-term written tests for admission to or exemption from final examination. Examinations in approved examination periods.
Language of Instruction	Portuguese Mentoring in Portuguese
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	Applied Chemistry
Course unit code	96449
Type of course unit	Compulsory
Level of Course unit	First Cycle
Year of Study	First Year
Semester/Trimester when the course unit is delivered	Second Semester
Number of ECTS credits allocated	5
Name of Lecturer(s)	Maria Teresa da Luz Silveira Marco António Mourão Cartaxo José Manuel Quelhas Antunes
Learning outcomes of the course unit	Students should understand general chemistry and its application in the graphic processes as well as the variables of chemical processes.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Not applicable.
Recommended optional programme componentes	Not applicable.
Course contentes	1-Basic structure of matter; 2-Chemical bonding; 3-Stoichiometry; 4-Chemical equilibrium; 5-Oxidation and reduction; 6-Organic chemistry; 7-Paper chemistry; 8-Chemistry of inks and toners
Recommended or required Reading	- Eldred, N.(2001). <i>Chemistry for the Graphic Arts</i> . Pittsburgh: GATF Press - Atkins, P.(1989). <i>General Chemistry</i> . Nova Iorque: Scientific American - Chang, R. e Goldsby, K. (2013). <i>Química</i> . New York: McGraw Hill - Ebbing, D. e Gammon, S. (2012). <i>General Chemistry</i> . Belmont: Brooks/Cole
Planned learning activities and teaching methods	Lectures and laboratory sessions including the preparation of solutions and determination of paper pH.
Assessment Methods and criteria	Continuous assessment including practical and theoretical components. A minimum mark of 10/20 is required in both components. Final mark is as follows: theoretical component (60%)and practical component (40%).
Language of Instruction	Portuguese
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	Colour Physics
Course unit code	964410
Type of course unit	Compulsory
Level of Course unit	First Cycle
Year of Study	First Year
Semester/Trimester when the course unit is delivered	Second Semester
Number of ECTS credits allocated	3
Name of Lecturer(s)	Rosa Brígida Almeida Quadros Fernandes
Learning outcomes of the course unit	On completion of this course students should demonstrate to be able to solve lighting-related problems and select lighting sources as applied to design.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Basic algebra and elementary trigonometry.
Recommended optional programme components	Quantitative Methods.
Course contents	1 -General Characteristics of light:speed, refractive index; period, frequency, wavelength, electromagnetic spectrum 2-Reflection (RE) and refraction (RA) of light: practical applications of RE and RA laws. Light transmission and absorption: practical applications of Beer's law. Light scattering 3-Concepts of photometry 4-The dual nature of light: Plank's law
Recommended or required Reading	- Hewitt, P.(2009). <i>Física Conceitual (cap 19, 20, 26, 28 e 29)</i> . São Paulo: Bookman - Fernandes, R.(0). <i>sebenta teorica de fisica da cor 2012 2013</i> .Acedido em21 de dezembro de 2014 em https://www.dropbox.com/s/i1rotsj2q2sjt70/sebenta%20teorica%20de%20fisica%20da%20cor%202012%202013.pdf?dl=0 - Fernandes, R.(0). <i>sebenta pratica de fisica da cor 2012 2013</i> .Acedido em1 de dezembro de 2014 em https://www.dropbox.com/s/isatzn16nok4vbl/sebenta%20pratica%20de%20fisica%20da%20cor%202012%202013.pdf?dl=0 - Fernandes, R.(0). <i>Física da Cor IPT vibes, um PLE para servir de exemplo</i> .Acedido em1 de dezembro de 2014 em http://www.netvibes.com/rosab#conteudos_principais
Planned learning activities and teaching methods	Theoretical and practical problem-solving, weekly group assignments, practical light-based experiments and online and video simulations.
Assessment Methods and criteria	Development of a group assignment related with light (personal or course related choice). Two-mid-term tests. Students will also have (as homework) self-training tests with automatic feedback in all answers.
Language of Instruction	Portuguese
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	Graphic Design I
Course unit code	964411
Type of course unit	Compulsory
Level of Course unit	First Cycle
Year of Study	First Year
Semester/Trimester when the course unit is delivered	Second Semester
Number of ECTS credits allocated	6
Name of Lecturer(s)	Luis Filipe Cunha Moreira
Learning outcomes of the course unit	1 Master basic visual syntax 2 Acquire a comprehensive graphical visual literacy 3 Select, class and manipulate typographic elements of a graphic project 4 Design symbols 5 Bring image and text together 6 Develop corporate identity projects
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Not applicable.
Recommended optional programme components	Not applicable.
Course contents	1 Introduction to graphic design: syntax and visual literacy 2 Composition 3 Shape, line, contour and filling, shape and background, texture, color 4 Choosing the right typeface 5 Characters, words, sentences, text 6 Text and Image 7 Iconic symbols 8 Corporate Identity
Recommended or required Reading	<ul style="list-style-type: none"> - Wilde, R. e Wilde, J. (2000). <i>Visual Literacy: A Conceptual Approach to Graphic Problem Solving</i>. USA: Watson-Guption Publications Inc - Philips, J. e Lupton, E. (2008). <i>Graphic Design: The New Basics</i>. USA: Princeton Architectural Press - Wong, W.(2004). <i>Diseño Grafico Digital</i>. Espanha: Editorial Gustavo Gili - Willberg, H.(2003). <i>Primeros Auxilios en Tipografia</i>. Espanha: Editorial Gustavo Gili
Planned learning activities and teaching methods	1 Theoretical introduction to practical exercises 2 Short exercises contributing to instil visual literacy needed for graphic design 3 Project monitoring 4 Result analysis
Assessment Methods and criteria	- Summative assessment of students individual projects.
Language of Instruction	Portuguese Mentoring in English
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	Image Analysis
Course unit code	96448
Type of course unit	Compulsory
Level of Course unit	First Cycle
Year of Study	First Year
Semester/Trimester when the course unit is delivered	Second Semester
Number of ECTS credits allocated	4.5
Name of Lecturer(s)	João Manuel de Sousa Nunes Costa Rosa
Learning outcomes of the course unit	Students should demonstrate to: I. have visual skills II. have critical thinking III. consider doubts, mistakes and hypotheses IV. be familiar with research procedures V. value visual communication VI. value visual experimentation
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Basics of image and image theory. Basics of plastic language Drawing skills
Recommended optional programme componentes	Not applicable.
Course contents	1 Images as mirrors; 2 Visual rethorics 3 Design based on collective notions 4 Image Reading; visual literacy 5 Research dynamics; design thinking
Recommended or required Reading	<ul style="list-style-type: none"> - Vilches, L.(2002). <i>Teoría de la Imagen Periodística</i>. Madrid: Ediciones Pirámide - Justo, V.(1996). <i>Principios de teoría General de la Imagen</i>. Madrid: Pirâmide - Zunzunegui, S.(1989). <i>Pensar la imagen</i>. Madrid: Cátedra - μ. , G.(1989). <i>Retorica general</i>. MadridBarcelona: Ediciones Paidós
Planned learning activities and teaching methods	A)Content presentation using examples B)Reading projected images C)Experimental exercises D)Analysis and discussion of printed advertising; visual rhetorics E)Group didactic games; research tasks
Assessment Methods and criteria	Ongoing assessment: classroom exercises and critical essays Mid-term test Written theoretical exam
Language of Instruction	Portuguese Mentoring in English
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	Photography
Course unit code	964444
Type of course unit	Compulsory
Level of Course unit	First Cycle
Year of Study	First Year
Semester/Trimester when the course unit is delivered	Second Semester
Number of ECTS credits allocated	4.5
Name of Lecturer(s)	António Martiniano Ventura
Learning outcomes of the course unit	Understand the photographic process, its evolution and application as a method of recording, producing, reproducing and disseminating images. Provide the development of conceptual and operational skills to carry out "photo-graphic" products.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Not applicable
Recommended optional programme componentes	Not applicable
Course contentes	The photographic record as a technique for the reproduction and dissemination of images; The photographic process and its areas of interest; The Photo Lab; Sensitive materials; The camera and its mechanisms; The image formation mechanism: perspective, framing, exposure control, focus and image sharpness; Light; Digital Photography: recording and post-production.
Recommended or required Reading	<ul style="list-style-type: none"> - Hurburt, A.(1985). <i>Diseño fotográfico: interacción del diseño con la fotografía</i>. (Vol. 1). (pp. 1-127). Barcelona1: Gustavo Gili - Ventura, A.(0). <i>Para uma didática da imagem - Leitura e análise da imagem</i>.Acedido em10 de novembro de 2014 em https://dl.dropboxusercontent.com/u/6359651/TI%20II/Leitura_Imagem.pdf - Silveira Ramos, M. e Soudo, J. (0). <i>Manual de Técnicas Fotográficas</i>.Acedido em9 de novembro de 2014 em https://dl.dropboxusercontent.com/u/6359651/DTAG/1_Manual_Tec_Foto.pdf - Melo, C.(0). <i>Manual de Fotografia Digital</i>.Acedido em9 de novembro de 2014 em https://dl.dropboxusercontent.com/u/6359651/manuais%20de%20fotografia/5_Manual_Foto_Digital.pdf
Planned learning activities and teaching methods	A set of successive exercises allow the students to reflect on three basic questions: What is photography?; What's the purpose of photography? and How does photography work?
Assessment Methods and criteria	As this course unit requires an active participation of the student, assessment will be on an ongoing basis with self- and hetero forms of assessment.
Language of Instruction	Portuguese
Work placement(s)	Not applicable

B - Description of individual course units

Course unit title	Prepress
Course unit code	964445
Type of course unit	Compulsory
Level of Course unit	First Cycle
Year of Study	First Year
Semester/Trimester when the course unit is delivered	Second Semester
Number of ECTS credits allocated	7
Name of Lecturer(s)	Miguel Alexandre Pereira Sanches Rui Miguel Sardinha Proença
Learning outcomes of the course unit	Understand the stages of production of the graphic object Identify/characterize printing processes Acquire knowledge in analog and digital imposition Be able to use specific software Distinguish between different file formats Recognise and classify originals
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Basics of photography, colour theory, text processing and text/picture articulation (paging)
Recommended optional programme componentes	Graphic Techniques and Desktop Publishing
Course contentes	Classification of originals, its analysis and control Warping technologies and its densitometric applications Measuring/calibration instruments and control scales Text-image processing and integration Manual and digital page-setting Workflows CtF, CtP, CtS, Printing moulds Characterisation and identification of printing processes
Recommended or required Reading	- BAER, L.(2004). <i>Produção Gráfica</i> . S. Paulo: SENAC - KIPPHAN, H.(2001). <i>Handbook of Print Media; Technologies and Production Methods</i> . Berlim: Springer-Verlag - JOHANSSON, K. e LUNDBERG, P. e RYBERG, R. (2004). <i>Manual de Producción Gráfica - Recetas</i> . Barcelona: GG - LÉLIS, C.(2011). <i>InDesign CS5 - Curso Completo</i> . Lisboa: FCA - Editora de Informática, Lda.
Planned learning activities and teaching methods	Lectures supported by audiovisual resources and analogue/digital case studies. Hands-on practice of manual, mechanical and computer-aided production of several types of printing moulds.
Assessment Methods and criteria	Cont.:40% P; 30% I; 30% CS. P; I; SC-each: 50%TP>=10, 45%T, 5%att. Exemp: mark>=10, Ass T and TP in each component. Excl. final assessment: Attendance =10.Ex.T.
Language of Instruction	Portuguese Mentoring in English
Work placement(s)	Not applicable

B - Description of individual course units

Course unit title	Communication Ergonomics
Course unit code	964437
Type of course unit	Compulsory
Level of Course unit	First Cycle
Year of Study	Second Year
Semester/Trimester when the course unit is delivered	First Semester
Number of ECTS credits allocated	4
Name of Lecturer(s)	Luis Filipe Cunha Moreira
Learning outcomes of the course unit	1. In-depth understand of typography in order to be able to use it properly in each graphic product having in mind communicative accuracy; 2. understand and apply ergonomic rules for legibility and readability; 3. critically analyse graphic design according to communication principles.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Basics of graphic design.
Recommended optional programme componentes	Not applicable.
Course contentes	1. Typesetting: historical evolution; 2. Typesetting rules as a function of legibility and consistency 3. Colour Theory applied to communication design. 4. Signage and pictograms. 5. Diagram representation. 6. Critical analysis of real design cases
Recommended or required Reading	<ul style="list-style-type: none"> - Andrew, H. e Baines, P. (2002). <i>Type & Typography</i>. Londres: Laurence King Publishing - Ginger, E. e Spiekermann, E. (2003). <i>Stop Stealing Sheep & find out how type works</i>. Berkeley, EUA: Adobe press - Lupton, E.(2010). <i>Thinking with Type: A Critical Guide for Designers, Writers, Editors, and Students (Design Briefs)</i>. EUA: Princeton Architectural Press - Rayan, A.(2006). <i>Pictograms, Icons & Signs: A Guide to Information Graphics</i>. Londres: Thames & Hudson Ltd
Planned learning activities and teaching methods	1. Lectures supported by datashow on subjects written and prepared by the lecturer; 2. Tutorials comprising analysis of communication texts according to communication ergonomics parameters.
Assessment Methods and criteria	Assessment of students' projects (30%). Written examination covering all subject matters in the module(70%). Examination in approved periods: written test.
Language of Instruction	Portuguese Mentoring in English
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	Design Theory
Course unit code	964438
Type of course unit	Compulsory
Level of Course unit	First Cycle
Year of Study	Second Year
Semester/Trimester when the course unit is delivered	First Semester
Number of ECTS credits allocated	4.5
Name of Lecturer(s)	Maria João Bom Mendes dos Santos
Learning outcomes of the course unit	This course aims at: 1. sensitizing students to the role of Design and designers in our society; 2. developing critical and interventive skills in the design area, particularly in graphic communication.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Basics of graphic design history and theory.
Recommended optional programme components	Not applicable.
Course contents	1. Futurism, Dadaism and Surrealism; 2. Russian Suprematism and Constructivism; 3. De Stijl; 4. The Bauhaus; 5. Jan Tschichold and the New Typography; 6. Eric Gill and the Gill Sans; 7. International Typographic Style; 8. The pioneers of digital design
Recommended or required Reading	<ul style="list-style-type: none"> - BLACKWELL, .(1993). <i>La tipografia del siglo XX</i>. Madrid: Editorial Gustavo Gili - FRASCAR, J.(2004). <i>Communication Design, Principles, Methods and Practice</i>. New York.: Allworth Press - HELLER & CHWAST, S.(1988). <i>From Victorian to post-modern</i>. London: Thames and Hudson - JULIER, G.(1997). <i>The thames & Hudson dictionary of 20th century design and designers</i>. London: Thames & Hudson
Planned learning activities and teaching methods	1. Lectures supported by audiovisual resources.
Assessment Methods and criteria	Assessment includes theoretical coursework carried out in class (50% of the final grade) and a final written test (50% of the final grade).
Language of Instruction	Portuguese Mentoring in English
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	Graphic Design II
Course unit code	964416
Type of course unit	Compulsory
Level of Course unit	First Cycle
Year of Study	Second Year
Semester/Trimester when the course unit is delivered	First Semester
Number of ECTS credits allocated	6
Name of Lecturer(s)	Fernando Manuel Craveiro Coelho
Learning outcomes of the course unit	1. Sketch up and produce layouts for editorial design; 2. Be able to distinguish between the different types of publications; 3. Configure paginations for different kinds of publications.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Basics of Graphic Design
Recommended optional programme componentes	Not applicable
Course contentes	1. An introduction to Editorial Design; 2. Analysis of key illustrative examples and use of grids and fonts; 3. Pagination software; 4. Typographic hierarchy, types of page construction and visual consistency within a publication.
Recommended or required Reading	- SAMARA, T.(2007). <i>Grid, Construção e Desconstrução</i> . São Paulo: Cosac Naify - LESLIE, J.(2003). <i>Nuevo diseño de revistas</i> . Barcelona: Editorial Gustavo Gili - LUPTON, E.(2006). <i>Pensar com tipos</i> . São Paulo: Cosac Naify
Planned learning activities and teaching methods	1. Lectures supported by datashow. 2. Classes with practical exercises. 3. Monitoring of editorial design projects.
Assessment Methods and criteria	Continuous and final assessment. The final grade is the weighting of both types of assessment. Active participation in class is worth 10%.
Language of Instruction	Portuguese Mentoring in English
Work placement(s)	Not applicable

B - Description of individual course units

Course unit title	Marketing
Course unit code	964440
Type of course unit	Compulsory
Level of Course unit	First Cycle
Year of Study	Second Year
Semester/Trimester when the course unit is delivered	First Semester
Number of ECTS credits allocated	4
Name of Lecturer(s)	Maria de Fátima Rodrigues Pedro
Learning outcomes of the course unit	1.Understand market players and dynamics from the point of view of marketing; 2.Become familiar with the key market research methods; 3.Develop a marketing plan including the various strategic variables; 4.Have an understanding of the peculiarities of brand management;
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Not applicable.
Recommended optional programme components	Not applicable.
Course contents	1. Introduction 2. Market Analysis 3. Market research 4. Explanatory consumer behaviour theories and models 5. Segmentation and differentiation 6. The positioning 7. The brand 8. Marketing-Mix
Recommended or required Reading	<ul style="list-style-type: none"> - Vicente Rodrigues, J. e Lendrevie, J. e Lindon, D. e Dionísio, P. (2004). <i>Mercator XXI - Teoria e Prática do Marketing</i>. Lisboa: Publicações dom Quixote - Propriedade Industrial, I.(2007). <i>Manual II - Design Protegido</i>. Lisboa: Centro Português do Design - Brochard, B. e Dionísio, P. e Vicente Rodrigues, J. e De Baynast, A. (2010). <i>Publicitor</i>. Lisboa: Dom Quixote - Kotler, P. e Armstrong, G. e Wong, V. e Saunders, J. (2008). <i>Principles of Marketing</i>. England: Pearson Prentice Hall
Planned learning activities and teaching methods	1.Expository Lectures 2.Class debates. 3.Case study analysis.
Assessment Methods and criteria	Continuous assessment: Practical assignment with presentation and discussion, a minimum mark of 10/20 (weight of 40%). Mid-term test, minimum mark of 10/20 weight of 60%) Final examination: Exam (100%)
Language of Instruction	Portuguese Mentoring in English
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	Printing - offset I
Course unit code	964446
Type of course unit	Compulsory
Level of Course unit	First Cycle
Year of Study	Second Year
Semester/Trimester when the course unit is delivered	First Semester
Number of ECTS credits allocated	7
Name of Lecturer(s)	Miguel Alexandre Pereira Sanches Paula Alexandra Costa Leite Pinto Pereira
Learning outcomes of the course unit	1- Students are expected to be able to perform colour proofs and prepare moulds for different printing processes. 2- They should also be able to operate offset printing machinery, detect and fix problems that may occur during the printing process.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Not applicable.
Recommended optional programme componentes	Not applicable.
Course contentes	1- Offset machinery; 2- Preparing an offset printing equipment. 3- Colour proof; 4- Preparation of printing plates; 5- Quality control.
Recommended or required Reading	- Kipphan, H.(2001). <i>Handbook of Print Media: technologies and production methods</i> . Berlin: Springer-Verlag - Barbosa, C.(2009). <i>Manual prático de produção gráfica</i> . Lisboa: Principia - Rosner, H. e Walk, H. (2000). <i>Artes Gráficas - Transferência e impressão de informações</i> . São Paulo: ABTG - Casals, R.(1987). <i>Offset: Control de calidad</i> . Barcelona: Du Pont-Howson
Planned learning activities and teaching methods	1- Lectures supported by audiovisual resources. 2- Hands-on practical exercises individually or as part of a team.
Assessment Methods and criteria	Continuous assessment includes the work done in class and a written test and/or theoretical coursework. The end-of-semester test(examination) will cover only the theoretical component.
Language of Instruction	Portuguese
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	Production Management
Course unit code	964414
Type of course unit	Compulsory
Level of Course unit	First Cycle
Year of Study	Second Year
Semester/Trimester when the course unit is delivered	First Semester
Number of ECTS credits allocated	4.5
Name of Lecturer(s)	Henrique Joaquim de Oliveira Pinho
Learning outcomes of the course unit	1. An overview of the concepts, theories and methods of production management, from stocks management to production control, including the costs associated therewith; 2. Students should be able to plan production, or interpret and optimize the existing production system.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Not applicable.
Recommended optional programme components	Not applicable.
Course contents	1. Planning: planning techniques; the working method and timings; Gantt diagrams. 2. Procurement: purchasing and stock management. 3. Production: the new context of production management; maintenance; documentation in the PM; production typologies. 4. Productions costs. 5. Lean management: principles and tools. 6. Measuring the performance of a production system.
Recommended or required Reading	<ul style="list-style-type: none"> - Curtois, A.(2003). <i>Gestão da produção</i>. Lisboa: Edições Lidel - Lysons, C.(1990). <i>O Aprovisionamento na empresa</i>. Lisboa: Editorial Presença - Hugel, H. e Baranger, P. (1994). <i>Gestão da Produção</i>. Lisboa: Edições Sílabo - Casals, R.(1999). <i>Organização e Gestão: Rumo à produtividade nas indústrias gráficas..</i> : Europa-América
Planned learning activities and teaching methods	1. Lectures supported by audiovisual resources; 2. Analysis of practical examples; 3. Problem solving; 4. Group work on a topic from Chapter 4; 5. Group work on topics from chapters 5 or 6; 6. Individual work on topics in chapters 5 or 6.
Assessment Methods and criteria	Written mid-term test or exam with 7/20 as minimum admission mark. Practical assignment.
Language of Instruction	Portuguese Mentoring in English
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	Graphic Design III
Course unit code	964422
Type of course unit	Compulsory
Level of Course unit	First Cycle
Year of Study	Second Year
Semester/Trimester when the course unit is delivered	Second Semester
Number of ECTS credits allocated	6
Name of Lecturer(s)	Maria João Bom Mendes dos Santos
Learning outcomes of the course unit	1. Distinguish between different information systems. 2. Develop self-critical skills and a general idea of the graphic design panorama. 3. Develop quality stand-alone work
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Basics of project, design and graphic practices. Be able to interpret a graphic project briefing.
Recommended optional programme components	Not applicable.
Course contents	1. Different information design systems: museums, recreational sites, natural parks and reserves, malls, schools and others. 2. Presentation, analysis and discussion of solutions to case studies. 3. Legal issues involved in information design projects.
Recommended or required Reading	<ul style="list-style-type: none"> - Garland, K.(1994). <i>Mr. Beck's Underground Map</i>. London: London Transport Museum - Neurath, O.(1980). <i>International Picture Language</i>. Reading: University of Reading - White, A.(2002). <i>The Elements of Graphic Design</i>. New York: Allworth Press - Jury, D.(2007). <i>O que é a Tipografia?</i>. Barcelona: Editorial Gustavo Gili
Planned learning activities and teaching methods	1. Lectures making use of datashow, images and audiovisual resources.
Assessment Methods and criteria	One project throughout the semester. The project has two assessments on stipulated dates and one final assessment (mid-term or end of semester) in which projects must be completed and presented.
Language of Instruction	Portuguese Mentoring in English
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	Multimedia Design I
Course unit code	964420
Type of course unit	Compulsory
Level of Course unit	First Cycle
Year of Study	Second Year
Semester/Trimester when the course unit is delivered	Second Semester
Number of ECTS credits allocated	5
Name of Lecturer(s)	Célia Maria Nunes Barreto
Learning outcomes of the course unit	1. Design and implement websites. 2. Conduct design studies. 3. Develop skills in specific webdesign software. 4. Deliver a webdesign project with the use of Html and CSS.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Not applicable.
Recommended optional programme components	Image Processing
Course contentes	1. Introduction to HTML . Text and images; . Hyperlinks; . Tables. 2. Introduction to CSS . Properties, attributes and subclasses. 3. Getting Started with Dreamweaver . Text and images; . Tables and frames; . CSS; . Hyperlinks; . Templates and Forms; . Sound and video; . Behaviours. 4. Webdesign project . Project definition . Development of a structure . Design studies
Recommended or required Reading	<ul style="list-style-type: none"> - KENTIE, P.(2002). <i>Web Design, tools and techniques</i>. (pp. 1-436). USA: Peachpit Press - PRING, R.(2000). <i>WWW Color</i>. (pp. 1-192). New York: Watson-Guptill Publications - PRING, R.(2000). <i>www type</i>. (pp. 1-192). USA: Watson-Guptill Publications - Glenwright, J.(2000). <i>WWW Layout</i>. (pp. 1-192). USA: Watson-Guptill Publications
Planned learning activities and teaching methods	1. Theoretical classes comprising content exploration and presentation of case studies. 2. Lab sessions including practical exercises and project monitoring.
Assessment Methods and criteria	Assessment (mid-term or final) consists in two practical exercises and an individual test. Exercise 1 - website design Exercise 2 - website production Weighting: Project (30%); Site (50%); Test (20%)
Language of Instruction	Portuguese Mentoring in English
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	Packaging and Processing
Course unit code	964421
Type of course unit	Compulsory
Level of Course unit	First Cycle
Year of Study	Second Year
Semester/Trimester when the course unit is delivered	Second Semester
Number of ECTS credits allocated	5
Name of Lecturer(s)	Regina Aparecida Delfino
Learning outcomes of the course unit	Provide students with a conceptual and technical panorama of packaging design and production. Prepare them to solve design and packaging related problems as well produce promotional material and design and develop packaging prototypes. They should master ArtiosCad software.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Not applicable.
Recommended optional programme components	Not applicable.
Course contents	Packaging definitions, packaging types. Marketing aspects. Packaging functions. Packaging design methodology. Colour application, bar code. Printing methods and labels. Packaging and the environment. ArtiosCAD software. Standardised, flexible and semi-rigid packages and labels. Three-dimensional promotional objects. Production processes, equipment/systems.
Recommended or required Reading	<ul style="list-style-type: none"> - STEWART, B.(2007). <i>Packaging – Manual de diseño y produccion</i>. Barcelona: Ediciones Gustavo Gili - MESTRINER, F.(2001). <i>Design de Embalagem. Curso Básico</i>. São Paulo: Makron Books - GIOVANNETTI, M.(1995). <i>El Mundo del envase. Manual para el diseño y producción de envases y embalajes</i>. Barcelona: Gustavo Gili - SONSINO, S.(1990). <i>Packaging. Diseño, materiales, tecnologia</i>. Barcelona: Gustavo Gili
Planned learning activities and teaching methods	Presentation of theoretical contents and analysis of the different packaging types. Execution of packaging design projects from the briefing phase to the final prototype using different materials.
Assessment Methods and criteria	Continuous asses.: 30% test and 70% practical projects. Final grade is weighted average of all grades. Final asses.: attend. at 2/3 of the classes and min. of 10/20 on projects. Final theoretical exam. Min. pass grade is 10/20.
Language of Instruction	Portuguese
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	Premedia
Course unit code	964447
Type of course unit	Compulsory
Level of Course unit	First Cycle
Year of Study	Second Year
Semester/Trimester when the course unit is delivered	Second Semester
Number of ECTS credits allocated	3
Name of Lecturer(s)	Fernando Manuel Craveiro Coelho
Learning outcomes of the course unit	1. Final digital files for high quality printing; 2. Best practices for typography, colour management and images; 3. Generating files for offset printing according to ISO 12647.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	The fundamentals of Adobe Indesign
Recommended optional programme componentes	Not applicable
Course contentes	1. File formats, print marks, bleed and slug; 2. Fonts management; 3. Colour management; 4. Bitmap and vectorial images; 5. Indesign Live Preflight tools 6. Indesign package and pdf files.
Recommended or required Reading	- ADOBE, A.(2011). <i>Adobe Creative Suite 5/5.5 Printing Guide</i> . San Jose, California: Adobe - MOREIRA, L. e , . (2009). <i>Sebenta de Arte Final Digital</i> . Tomar: IPT - VÁRIOS, V.(2010). <i>Guía de Buenas Prácticas, Estandarización de la Impresión Offset</i> . Valencia: AIDO
Planned learning activities and teaching methods	1.Lectures and demos supported by datashow 2.Tutorials and exercises including problem solving.
Assessment Methods and criteria	Continuous assessment: three practical assignments (90%); attendance and class performance (10%) Exams in approved examination periods.
Language of Instruction	Portuguese Mentoring in English
Work placement(s)	Not applicable

B - Description of individual course units

Course unit title	Printing - Offset II and Pad Printing
Course unit code	964448
Type of course unit	Compulsory
Level of Course unit	First Cycle
Year of Study	Second Year
Semester/Trimester when the course unit is delivered	Second Semester
Number of ECTS credits allocated	6
Name of Lecturer(s)	Miguel Alexandre Pereira Sanches Paula Alexandra Costa Leite Pinto Pereira
Learning outcomes of the course unit	1- To recognize, classify and master the methods of preparation of various special printing techniques. 2- Provide in-depth knowledge of printing techniques with special emphasis to the traditional systems such as offset and pad printing.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Not applicable
Recommended optional programme components	Not applicable
Course contentes	1- Classification of the main techniques for special printing; 2- Identification and production of prints using special prints; 3- Studies of equipment and printing plates for pad printing; 4- Preparation of consumables for pad printing.
Recommended or required Reading	- AMBROSE, G. e HARRIS, P. (2006). <i>Basic Design: Print & Finish</i> . Londres: AVA Publishing - MORLOK, F. e BECKMANN, T. (2009). <i>Extra:Encyclopaedia of Experimental Print Finishing..</i> Basel: Birkhauser Verlag AG: Basel: Birkhauser Verlag AG - WITHAM, S.(2007). <i>Print and Production Finishes for Promotional Items</i> . Londres: Rotovision. Londres: Rotovision: Londres: Rotovision - Underconsideration, U.(0). <i>FPO - For Print Only</i> .Acedido em 4 de fevereiro de 2014 em www.underconsideration.com/fpo
Planned learning activities and teaching methods	1- Lectures supported by audiovisual resources. 2- Hands-on practical exercises individually or as part of a team.
Assessment Methods and criteria	The theoretical part is assessed in the mid-term or final assessment periods. Practical components are the subject of ongoing assessment with the following weighting: pad printing (40%) + offset printing (60%)
Language of Instruction	Portuguese
Work placement(s)	Not applicable

B - Description of individual course units

Course unit title	Quality Control
Course unit code	964419
Type of course unit	Compulsory
Level of Course unit	First Cycle
Year of Study	Second Year
Semester/Trimester when the course unit is delivered	Second Semester
Number of ECTS credits allocated	5
Name of Lecturer(s)	Luís Miguel Alves de Oliveira Rui da Costa Marques Sant'Ovaia
Learning outcomes of the course unit	Students should be able to understand the performance of the several supports in all printing process (Prepress, Press and Postpress) in order to ensure the quality in graphics work. Working with production flowcharts and apply quality control in production.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Basics of general printing processes and respective production flows, machinery, raw materials and consumables
Recommended optional programme componentes	Not applicable.
Course contentes	I: Study of the fundamental principles of the paper manufacturing process and other printing materials. II: Paper characterization and quality control. Properties with implications on print process or the printed product. III: Quality control in the several phases of the printing process
Recommended or required Reading	- Biermann, C.(1996). <i>Handbook of pulping and papermaking</i> . San Diego: Academic Press - Kipphan, H.(2001). <i>Handbook of Print Media</i> . Berlin: Springer - Asunción, J.(2002). <i>O Papel – Técnicas e Métodos Tradicionais de Fabrico</i> . Lisboa: Editorial Estampa - Barbosa, C.(2009). <i>Manual Prático de Produção Gráfica</i> . Lisboa: Principia
Planned learning activities and teaching methods	Lectures supported by oral and audiovisual media (CD, DVD, etc.) Practical and Laboratory exercise classes: group and individual assignments.
Assessment Methods and criteria	Written assessment test. Continuous assessment in the lab and final reports. Continuous assessment of individual and group exercises and project briefs.
Language of Instruction	Portuguese Mentoring in English
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	Digital Printing
Course unit code	964450
Type of course unit	Compulsory
Level of Course unit	First Cycle
Year of Study	Third Year
Semester/Trimester when the course unit is delivered	First Semester
Number of ECTS credits allocated	3
Name of Lecturer(s)	Rui Miguel Sardinha Proença
Learning outcomes of the course unit	Acquire knowledge about the technical digital printing (DP) process Understand, distinguish and characterize: technologies, products, raw materials and consumables Be aware of DP advantages Identify types of works produced with DP Demonstrate autonomy in operating with different DP equipment
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Not applicable
Recommended optional programme components	Not applicable
Course contents	Digital Printing - fundamentals and basic components. Conventional vs Digital printing Advantages of Digital Printing Various types of Digital Printing. Types of jobs Experimentation/simulation
Recommended or required Reading	- JOHNSON, H.(2004). <i>Digital Printing Start-Up Guide (Digital Process and Print)</i> . : Thomson, Course Technolog - JOHNSON, H.(2004). <i>Mastering Digital Printing, Second Edition (Digital Process and Print)</i> . : Muska & Lipman - KIPPHAN, H.(2001). <i>Handbook of Print Media; Technologies and Production Methods</i> . Berlim: Springer-Verlag (0). <i>Roland</i> . Acedido em 5 de julho de 2014 em www.rolanddg.com
Planned learning activities and teaching methods	Presentation of content through exhibition, projection, demonstration and experimentation Presentation of theoretical concepts using audiovisual media Analysis of printed graphics objects by digital process Practical exercises
Assessment Methods and criteria	Continuous: 2/3 Attendance. Criteria: 5% attendance; Theo-Pract 65%; Theo.Assess. 30%. Exempt: mark $\geq 10/20$, Excluded final assessment: 2/3 Attend and 2/3 attendance and TP $\geq 10/20$. Theoretical exam.
Language of Instruction	Portuguese Mentoring in English
Work placement(s)	Not applicable

B - Description of individual course units

Course unit title	Graphic Design IV
Course unit code	964426
Type of course unit	Compulsory
Level of Course unit	First Cycle
Year of Study	Third Year
Semester/Trimester when the course unit is delivered	First Semester
Number of ECTS credits allocated	6
Name of Lecturer(s)	Maria João Bom Mendes dos Santos
Learning outcomes of the course unit	1. Distinguish between different communication design projects. 2. Develop critical skills and have a general panorama of graphic design. 3. Be able to produce stand-alone quality work.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Basics of project, design and graphic practices. Ability to interpret a graphic project briefing.
Recommended optional programme components	Not applicable.
Course contents	1. Study of typeface design. 2. Structured and analytical approaches to graphic design. 3. Making effective and substantial image judgements. 4. Pedagogical and human aspects of graphic design. 5. Graphic design projects.
Recommended or required Reading	<ul style="list-style-type: none"> - Frutiger, A.(2001). <i>En torno de la tipografia</i>. Barcelona: Editorial Gustavo Gili - Gray, N.(1986). <i>A history of lettering</i>. Oxford: Phaidon Oxford - Aicher, O.(1967). <i>Sistemas de signos en la comunicación visual</i>. Barcelona: Editorial Gustavo Gili - Moles, A.(1990). <i>O cartaz</i>. São Paulo: Editora Perspectiva
Planned learning activities and teaching methods	1. Lectures making use of datashow and audiovisual resources.
Assessment Methods and criteria	Two projects throughout the semester. The project has two assessments on stipulated dates and one final assessment (mid-term or end of semester) in which projects must be completed and presented.
Language of Instruction	Portuguese Mentoring in English
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	Multimedia Design II
Course unit code	964427
Type of course unit	Compulsory
Level of Course unit	First Cycle
Year of Study	Third Year
Semester/Trimester when the course unit is delivered	First Semester
Number of ECTS credits allocated	5
Name of Lecturer(s)	João Manuel de Sousa Nunes Costa Rosa
Learning outcomes of the course unit	I Film language II Acquire critical skills III Contact with motion graphics/animations IV Script-based design V Transform images in animated stories VI Design sequential stories VII Timing VIII Economic use of effects IX Software Exploration X Develop future skills
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Vectorial draw and image manipulation software
Recommended optional programme components	Not applicable.
Course contents	1) Multimedia, animation and motion graphics 2) Film-making procedures 3) Visual planning and design 4) Animation and post production software
Recommended or required Reading	- Bellantoni, J.(1999). <i>Type in motion</i> . Londres: Thames & Hudson - Bellantoni, J.(2000). <i>Moving type</i> . Hove: Rotovision - Grilo, J.(2010). <i>As lições do cinema</i> . Lisboa: Colibri - Arijon, D.(1999). <i>Grammaire du langage filmé</i> . Paris: Dujarric
Planned learning activities and teaching methods	A)Lectures using illustrative examples B)Animation and motion graphics analysis C)Relation between visual script and specific tutorials D)Animation proposals discussion E)OneDrive as a pedagogical resource F)Software-actor design relationship
Assessment Methods and criteria	Visual script as an assessment plan Tailor-made exercises of software manipulation Tailor-made experimental exercises Teaching as a way of detection and control Projects assessment in mid-term or final assessment periods.
Language of Instruction	Portuguese Mentoring in English
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	Postpress
Course unit code	964452
Type of course unit	Compulsory
Level of Course unit	First Cycle
Year of Study	Third Year
Semester/Trimester when the course unit is delivered	First Semester
Number of ECTS credits allocated	6
Name of Lecturer(s)	Regina Aparecida Delfino
Learning outcomes of the course unit	Acquisition and mastery of theoretical and practical knowledge of postpress techniques, materials, equipment and industrial systems. Development of conceptual and operational planning skills in this sector.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Not applicable
Recommended optional programme componentes	Not applicable
Course contentes	Finishing and embellishing techniques. Components of the body of the book. Book production stages: folding, sewing and binding. Techniques concerning processed products. Techniques concerning stationery products. Techniques relating to industrial binding. Postpress techniques for commercial works. Embellishment. Materials and equipment. ArtiosCad.
Recommended or required Reading	<ul style="list-style-type: none"> - KIPPAN, H.(2001). <i>Handbook of print media: technologies and production methods</i>. Heidelberg: Springer - LUNARDELLI, A. e ROSSI, S. (2004). <i>Acabamentos</i>. Sao Paulo: Editora Lunardelli - FISHEL, C.(2007). <i>El arte de la produccion creativa. Materiales, encuadernació y acabados</i>. Barcelona: Index Book S.L. - FALWCET TANG, R.(2007). <i>Acabados de impresión y edicion de folletos y catálogos</i>. Barcelona: Promopress
Planned learning activities and teaching methods	Presentation of the theoretical contents with support of audiovisual resources, analysis of different graphical objects. Theoretical and practical classes including exercises for implementation of the concepts taught. Field trips.
Assessment Methods and criteria	Continuous asses.: 40% test and 60% practical projects. The grade is a weighted average of all grades. Final asses.: attend. at 2/3 of the classes and min. of 10/ on projects. Final exam. only for the T. Min. final grade of 10 weig. aver.of t.
Language of Instruction	Portuguese
Work placement(s)	Not applicable

B - Description of individual course units

Course unit title	Quality Management
Course unit code	964449
Type of course unit	Compulsory
Level of Course unit	First Cycle
Year of Study	Third Year
Semester/Trimester when the course unit is delivered	First Semester
Number of ECTS credits allocated	4
Name of Lecturer(s)	Rui da Costa Marques Sant`Ovaia
Learning outcomes of the course unit	Equip students with the skills to be part of organisations wishing to implement quality management systems, ISO certification or develop Total Quality Methods. Develop communication, motivation and teamwork skills.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	None specific
Recommended optional programme components	Not applicable.
Course contentes	Quality concept and its evolution. Quality Tools. The Portuguese Quality System. Quality Management Systems: ISO 9000 Standards. Certification and certification bodies. Quality Audits. Quality costs. Management models for Total Quality.
Recommended or required Reading	<ul style="list-style-type: none"> - Ramos Pires, A.(2004). <i>Qualidade-Sistemas de Gestão da Qualidade</i>. (Vol. 1). Lisboa: Sílabo - Ganhão, F. e Pereira, A. (1992). <i>A Gestão da Qualidade</i>. (Vol. 1). Lisboa: Presença - Capricho, L. e Lopes, A. (2007). <i>Gestão da Qualidade</i>. (Vol. 1). Lisboa: RH - Kolarik, W.(1995). <i>Creating Quality</i>. (Vol. 1). Singapura: McGraw-Hill International
Planned learning activities and teaching methods	Lectures including content presentation. Debate on the most appropriate interpretation methodologies proposed for quality assurance and management. Discussion and analysis of real cases derived from the lecturer's own professional experience.
Assessment Methods and criteria	Class performance. Preparation of a written assignment (team work) selected among the lecturer's proposals. Resolution, on writing and on an individual basis, of a series of problems and exploratory essays on selected topics.
Language of Instruction	Portuguese
Work placement(s)	Not prevised

B - Description of individual course units

Course unit title	Screenprinting
Course unit code	964451
Type of course unit	Compulsory
Level of Course unit	First Cycle
Year of Study	Third Year
Semester/Trimester when the course unit is delivered	First Semester
Number of ECTS credits allocated	6
Name of Lecturer(s)	Luís Miguel Alves de Oliveira
Learning outcomes of the course unit	Provide knowledge and technical expertise in the silk screen printing process using tools, machinery and miscellaneous materials inherent to the process.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Not applicable
Recommended optional programme components	Not applicable
Course contents	Image processing. Screen preparation (stretching). Silkscreen frames. Inks and substrates. Technical application of the emulsion. Image transference into the screen. Development. Printing. Screen recovery. Quality control during the production process.
Recommended or required Reading	<ul style="list-style-type: none"> - Kiphan, H.(2001). <i>Handbook of Print Media</i>. (Vol. 1). Alemanha: Springer - Barbosa, C.(2009). <i>Manual Prático de Produção Gráfica</i>. (Vol. 1). Lisboa: Principia - Stephens, J.(1996). <i>Screen Process Printing</i>. (Vol. 1). Inglaterra: Blue print - SEFAR, S.(2006). <i>Handbook for screen printers</i>. (Vol. 1). Suíça: Sefar Inc. Printing Division
Planned learning activities and teaching methods	Theoretical/practical classes supported by audiovisual resources. Study/description of mechanisms and technologies for industrial, artisanal and artistic printing processes. Laboratory work.
Assessment Methods and criteria	Continuous assessment: Class attendance - 5% Work carried out during classes - 65% Written test - 30% Exam: written test - 30% Class attendance - 5% Work carried out during classes - 65%
Language of Instruction	Portuguese
Work placement(s)	Not applicable

B - Description of individual course units

Course unit title	Conservation of Graphic Documentation
Course unit code	964453
Type of course unit	Compulsory
Level of Course unit	First Cycle
Year of Study	Third Year
Semester/Trimester when the course unit is delivered	Second Semester
Number of ECTS credits allocated	5
Name of Lecturer(s)	Paula Alexandra Costa Leite Pinto Pereira
Learning outcomes of the course unit	1-Study and characterise concepts related with the preservation/conservation of books and graphic documents. 2-Study and identify traditional and modern bookbinding methods.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Not applicable
Recommended optional programme components	Not applicable
Course contents	Fundamentals of preservation/conservation of graphic documents as well as the history and technical evolution of traditional and modern bookbinding. Practice involving real exercises that will develop students' critical and reflexive skills and allow them to understand and use the technical terminology.
Recommended or required Reading	<ul style="list-style-type: none"> - BOSQUET, É.(1989). <i>Traité théorique et pratique de l'art du relieur</i>. NA: Paris - CAMMARERI, M.(1990). <i>La reliure pas a pas</i>. Paris: Paris - JOHNSON, A.(1985). <i>Craft Bookbinding</i>. London: Thames and Hudson. London: Thames and Hudson - LIÉNARDY, A.(1992). <i>La desacidification de masse des livres et documents</i>. Bmxclies. IRPA. Bmxclies. IRPA: Bmxclies. IRPA
Planned learning activities and teaching methods	1- Lectures with the support of audiovisual resources. 2- Practical work individually or as part of a team performing tasks and solving practical problems.
Assessment Methods and criteria	Continuous assessment, attendance at 2/3 of the laboratory classes. Attendance 5%; coursework (65%), written test (30%). Final assessment: written exam will focus only on the theoretical component.
Language of Instruction	Portuguese Mentoring in English
Work placement(s)	Not applicable

B - Description of individual course units

Course unit title	Final Project
Course unit code	964456
Type of course unit	Compulsory
Level of Course unit	First Cycle
Year of Study	Third Year
Semester/Trimester when the course unit is delivered	Second Semester
Number of ECTS credits allocated	7.5
Name of Lecturer(s)	Luis Filipe Cunha Moreira
Learning outcomes of the course unit	1 Organize and systematize the design and implementation of a personal project promoting integration into the labour world; 2 Develop projects of areas not included in the course curriculum 3 Develop exhibition layouts; 4 Public presentation of an assignment and/or project
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Not applicable
Recommended optional programme components	Não aplicável.
Course contents	1 Organization of exhibitions 2 Promotion of an individual project 3 Choose appropriate formats and media 4 Proactivity in finding jobs 5 Professional ethics and contact with customers 6 Importance of oral presentation and project defense
Recommended or required Reading	<ul style="list-style-type: none"> - Myers, D.(2013). <i>The Graphic Designer's Guide to Portfolio Design</i>. New Jersey: Wiley - Hugues, P.(2010). <i>Exhibition Design</i>. Londres: Laurence King Publishing - Welsh, C.(2013). <i>Design: Portfolio: Self promotion at its best</i>. Londres: Rockport Publishers - Shaughnessy, A.(2005). <i>How to Be a Graphic Designer: Without Losing Your Soul</i>. Londres: Laurence King Publishing
Planned learning activities and teaching methods	1 Practical classes supported by datashow; 2 Monitoring of individual projects; 3 Guidance in the assemblage of the group exhibition; 4 Follow-up of oral presentations.
Assessment Methods and criteria	The personal project is assessed in three phases (with equal weighting): 1) exhibition layout; 2) group exhibition; 3) end-of-semester individual oral presentation.
Language of Instruction	Portuguese
Work placement(s)	Not applicable

B - Description of individual course units

Course unit title	Graphic Design Pricing
Course unit code	964455
Type of course unit	Compulsory
Level of Course unit	First Cycle
Year of Study	Third Year
Semester/Trimester when the course unit is delivered	Second Semester
Number of ECTS credits allocated	5
Name of Lecturer(s)	Luís Miguel Alves de Oliveira
Learning outcomes of the course unit	Study of the concepts and pricing/cost estimation methods for the printing industry.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Not applicable
Recommended optional programme componentes	Not applicable
Course contentes	Pricing/cost estimating in the Printing Industry The concept of Pricing/Cost estimating and its purpose The variables involved in the pricing process: handwork/machinery; raw materials. Raw materials and supplies for the production process.
Recommended or required Reading	- Kiphan, H.(2001). <i>Handbook of Print Media</i> . (Vol. 1). Alemanha: Springer - Barbosa, C.(2009). <i>Manual Prático de Produção Gráfica</i> . (Vol. 1). Lisboa: Principia - Bann, D.(2008). <i>Actualidade en la Producción de Artes Gráficas</i> . (Vol. 1). Barcelona: Blume - Baer, L.(1999). <i>Produção Gráfica</i> . (Vol. 1). S. Paulo: SENAC
Planned learning activities and teaching methods	Lectures - expository lessons using audiovisual resources Theoretical/practical lessons - practical work with the support of information and communication technologies.
Assessment Methods and criteria	Practical exercises – 15% Written tests (regular and special examination periods) – 85% Exemption from final exam: min. mark of 10/20 Final exam: minimum pass mark is 10/20
Language of Instruction	Portuguese
Work placement(s)	Not applicable

B - Description of individual course units

Course unit title	Management and Strategy
Course unit code	964454
Type of course unit	Compulsory
Level of Course unit	First Cycle
Year of Study	Third Year
Semester/Trimester when the course unit is delivered	Second Semester
Number of ECTS credits allocated	4.5
Name of Lecturer(s)	Miguel Alexandre Pereira Sanches Maria de Fátima Rodrigues Pedro
Learning outcomes of the course unit	1. Identify the relevant information about the environment and the company. 2. Understand and know how to apply the concepts, models and techniques. 3. Understand the different aspects of strategic analysis 4. Develop critical thinking in relation to strategic management. Decision-making.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	not applicable
Recommended optional programme components	not applicable
Course contents	1. Strategy and planning fundamentals. 2. Strategic analysis. 3. Strategy formulation. 4. Matrix analysis. 5. Planning and control. 6. Strategic organization and implementation.
Recommended or required Reading	- Grant, R.(2013). <i>Contemporary Strategic Analysis</i> . UK: Wiley - Teixeira, S.(2011). <i>Gestão Estratégica</i> . Lisboa: Escolar Editora - Sanders, W. e Carpenter, M. (2009). <i>Strategic Management A Dynamic Perspective</i> . England: Pearson Prentice Hall - Robbins, S. e Coulter, M. (2009). <i>Management</i> . England: Pearson Prentice Hall
Planned learning activities and teaching methods	1. Lectures 2. Class debates 3. Case study analysis
Assessment Methods and criteria	Ongoing assessment: Practical work including presentation and discussion, a minimum mark of 10/20 (40% of total grade). Mid-term test; a minimum mark of 10/20 (60% of total grade). Final examination: 100%
Language of Instruction	Portuguese
Work placement(s)	not applicable

B - Description of individual course units

Course unit title	Multimedia Design III
Course unit code	964431
Type of course unit	Compulsory
Level of Course unit	First Cycle
Year of Study	Third Year
Semester/Trimester when the course unit is delivered	Second Semester
Number of ECTS credits allocated	5
Name of Lecturer(s)	João Manuel de Sousa Nunes Costa Rosa
Learning outcomes of the course unit	I. Design multimedia products with social relevance II. Develop multimedia, layout and interaction skills III. Apply design procedures IV. Develop ideas using software allowing interaction V. Demonstrate to have critical, autonomy and relational skills
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Basics of multimedia and flash. Mastery of Photoshop and Illustrator. Drawing skills
Recommended optional programme components	Not applicable.
Course contents	1 Design and co-design procedures and methods 2 Gadgets and needs; examples 3 The prototyping process. The IDEO case 4 Design: information and navigation 5 Interface design; buttons, commands, menus 6 Mockup and development of the prototype. Usability in group. Stakeholders 7 Design of players, buttons and content 8 Hypothesis of real implementation
Recommended or required Reading	- ., .. <i>Sebenta da cadeira</i> . Tomar: . - Nielson, J.(2001). <i>Homepage usability</i> . Indianapolis: New Riders Publishing - Blauvelt, A.(2001). <i>Unfolding Identities</i> . In HELLER, Steven (Ed.). <i>In Education of</i> . (pp. 114-127). Nova Iorque: Allworth Press - Baggerman, L.(2000). <i>Design for interaction</i> . Beverly: Rockport Publishers
Planned learning activities and teaching methods	A)Lectures: discovery B)Design thinking: 2D prototype C)Co-design from manipulation and discussion D)Research: information from stakeholders E)Problem solving: design using specific software
Assessment Methods and criteria	Continuous assessment: practical exercises, aspects related with design thinking, prototyping, empathy, interpersonal relationships with mates/stakeholders. Mid-term test. Exams in approved examination periods.
Language of Instruction	Portuguese Mentoring in English
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	Organizational Behaviour
Course unit code	964433
Type of course unit	Compulsory
Level of Course unit	First Cycle
Year of Study	Third Year
Semester/Trimester when the course unit is delivered	Second Semester
Number of ECTS credits allocated	3
Name of Lecturer(s)	Isabel Maria da Cruz Ferreira
Learning outcomes of the course unit	The students should: - acquire the basics of organizational behaviour. - acquire knowledge regarding the key organizational behavioural procedures. - develop interpersonal, teamwork and negotiation skills. - develop critical insight about organizational behaviour.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Not applicable.
Recommended optional programme componentes	Not applicable.
Course contentes	1. Conceptual delimitation of the subject. 2. Communication (objectives, analysis, competences). 3. Motivation (motivational process, major theories and job satisfaction). 4. Leadership (major studies and results). 5. Citizenship in the organizations (the significance of justice, attitudes, personality, consequences). 6. Conflict and negotiation.
Recommended or required Reading	- FERREIRA, J.(1996). <i>Psicossociologia das organizações</i> . Alfragide: McGraw-Hill - GIBSON, J.(2006). <i>Organizações. Comportamento, estrutura e processos..</i> São Paulo: McGraw-Hill. - PINA e CUNHA, M.(2004). <i>Manual de comportamento organizacional e gestão</i> . Lisboa: Editora Recursos Humanos - REGO, A.(2002). <i>Comportamentos de cidadania nas Organizações</i> . Alfragide: McGraw-Hill
Planned learning activities and teaching methods	Theoretical-practical classes involving oral presentation based on audiovisual resources, case study presentation/discussion, roleplay, brainstorming, practical exercises and team games.
Assessment Methods and criteria	- One written test allowing admission to or exemption from final examination. - Pre-established examination periods.
Language of Instruction	Portuguese Mentoring in Portuguese
Work placement(s)	Not applicable.

