ECTS Information Package: Degree Programme

Bachelor's degree in

PHOTOGRAPHY

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A - General Description

Programme Title - Fotografia

Qualification awarded - Bachelor's degree in Photography

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

In order to be eligible to the bachelor's degree in Photography, students must hold the secondary school diploma or legally equivalent qualification with a minimum score of 95 points out of 200 in one of the following national examinations:

03 Drawing
07 Physics and Chemistry
10 Descriptive Geometry
12 History of Arts and Culture
11 History
16 Mathematics

Without prejudice to the general access requirements and in accordance with IPT's internal regulations, the following applicants may be admitted to the bachelor's in Photography subject to admission quotas: applicants coming from Castelo Branco, Coimbra, Leiria, Lisboa, Portalegre and Santarém (30%).

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

General
The policy and procedures for accreditation of prior learning are specified in the Regulations for the Recognition and Validation of Qualifications and skills of Escola Superior de ESTT-IPT available at http://webmanager.ipt.pt/mgallery/default.asp?obj=4536

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. In the third year there is an Optional Module in each semester.

Profile of the program:

The Photography program offers a high-level cultural, scientific and technical training supported by intensive practical coursework. This program has been designed so as to develop a wide range of skills that will allow an easy integration in the labour market and proceed to postgraduate, master's and doctoral studies.

Key learning outcomes:

Acquire sound scientific background in the several fields of study;

Develop operational skills that will allow them to apply theoretical knowledge to solve problems and be able to propose solutions and justify them;

Acquire technical research skills aiming at finding improved solutions;

Gain the ability to enhance and update their knowledge;

Develop learning skills that will allow them to undertake autonomous study.

Occupational profiles of graduates with examples:

Graduates in Photography have access to higher-level training based on arts, science and technology matters. Their skills will allow them to carry out projects with a good degree of autonomy in the following areas: documentary photography, photojournalism, author photography, architectural photography, publishing photography, industrial photography, fashion photography, digital post-production, colour management and printing quality control among others.

Access to further studies:

Upon completion of this bachelor's program, the IPT provides the students with the opportunity to proceed to the master's program in Photography.

Graduates in Photography from IPT are eligible for admission to postgraduate, master and doctoral programmes in related areas offered by other higher education institutions.

Course structure diagram with credits

Course Title	Year	Semester	Credits
Art History and Theory 1	1	S1	4
Chemistry 1	1	S1	4
Digital Photography 1	1	S1	6
Elements of Physics	1	S1	6
History of Photography 1	1	S1	4
Photography 1	1	S1	6
Art History and Theory 2	1	S2	4
Chemistry 2	1	S2	4
Digital Photography 2	1	S2	6
History of photography 2	1	S2	4
Optics	1	S2	6
Photography 2	1	S2	6
Applied Optics	2	S1	4
Digital Photography 3	2	S1	6
Image Theory 1	2	S1	4
Photography 3	2	S1	6
Sensitometry 1	2	S1	4
Silver Printing Processes	2	S1	6
Digital Capture Systems	2	S2	4
Digital Photography 4	2	S2	6
Gold, Platinum and Pigment Printing Processes	2	S2	6
Image Theory 2	2	S2	4
Photography 4	2	S2	6
Sensitometry 2	2	S2	4
Chromogenic Processes	3	S1	6
Critique on Contemporary Photography 1	3	S1	6
Option 1 (**)	3	S1	4
Photography 5	3	S1	6
Photography Project 1	3	S1	8

(**) Free Option.

Course structure diagram with credits (cont.)

Course Title	Year	Semester	Credits
Contemporary Photography Thinking 2	3	S2	6
Digital Printing and Colour Management	3	S2	6
Emulsions	3	S2	6
Option 2 (**)	3	S2	4
Photography Project 2	3	S2	8

(**) Free Option.

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:

Mode of study:
Full- or part-time.

Program director or equivalente

Director: Miguel Duarte Antunes da Silva Jorge
Erasmus coordinator: Valter Nuno Garcez da Silva Ventura
ECTS coordinator: Valter Nuno Garcez da Silva Ventura

B - Description of individual course units

Course unit title	Art History and Theory 1
Course unit code	964526
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)	Valter Nuno Garcez da Silva Ventura
Learning outcomes of the course unit	The students should acquire visual culture that will allow them to identify and discriminate between the different creative languages across history and understand the use of image across time as a vehicle of power, spirituality, memory and how its codes accumulated and subsist to the present day.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Not applicable.
Recommended optional programme componentes	Not applicable.
Course contentes	Prehistory. Pre-Classical Antiquity. Classic antiquity. Middle Ages. Renaissance.
Recommended or required Reading	- Calinescu, M.(1999). *As Cinco Faces da Modernidade*. Lisboa: Vega - Janson, H.(2010). *A Nova História da Arte*. Lisboa: FCGulbenkian - Gombrich, E.(0). *História da Arte*.Acedido em1 de março de 2016 em http://www.slideshare.net/acarahybalobatomusician/histria-da-arte-gombrich-34544932
Planned learning activities and teaching methods	Lectures.
Assessment Methods and criteria	Attendance and constructive participation in class (20%) + attendance (80%). Final exam (100%). Evaluation of questions about the given subject and that require answers of interpretation and problematization.
Language of Instruction	Portuguese
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	Chemistry 1
Course unit code	964529
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 Teresa da Luz Silveira
Learning outcomes of the course unit	Development of capacities for the comprehension of general chemistry and its application in the graphic processes, Comprehension of the chemical variables within the process.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Not applicable.
Recommended optional programme componentes	Not applicable.
Course contentes	1-The structure of matter 2-Chemical bonding 3-Stoicheometry 4-Chemical equilibrium Practical Component: Practical work # 1 - Measurement of volume and mass of liquids. Practical work # 2 - Preparation of solutions.
Recommended or required Reading	- Atkins, P.(1989). *General Chemistry*. Nova Iorque: Scientific American - Chang, R. e Goldsby, K. (2013). *Química*. New York: McGraw Hill
Planned learning activities and teaching methods	Lectures and laboratory classes in which the students will learn how to manage the chemical processes variables.
Assessment Methods and criteria	Continuous assessment has practical and theoretical components. A minimum mark of 10 is required for both components. The final mark is the weighted average of the two components: practical (40%) and theoretical (60%)
Language of Instruction	Portuguese
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	Digital Photography 1
Course unit code	964527
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	6
Name of Lecturer(s)	Miguel Duarte Antunes da Silva Jorge
Learning outcomes of the course unit	The purpose of this course is to provide the students with basic knowledge of photography that will allow them to understand the basic notions of Digital Photography, image capture and edition.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Not applicable.
Recommended optional programme componentes	Not applicable.
Course contentes	1st semester: Processes for the creation and manipulation of digital images using the software Adobe CS5. 2nd semester: digital camera operation techniques - photometry for digital photography - colour temperature - digital noise control
Recommended or required Reading	- Evening, M.(2014). *Adobe Photoshop CC for Photographers*. New York: Focal Press
Planned learning activities and teaching methods	Theoretical-practical classes supported by practical exercises. Laboratory practices fostering the photographic research and student autonomy.
Assessment Methods and criteria	Continuous assessment: practical exercises, class performance and attendance. Theoretical/practical tests.
Language of Instruction	Portuguese
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	Elements of Physics
Course unit code	964530
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	6
Name of Lecturer(s)	Carla Alexandra de Castro Carvalho e Silva
Learning outcomes of the course unit	Provide skills that will allow the students to relate acquired knowledge with daily phenomena. Basic concepts of physical principles for kinematics and motion dynamics.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Not applicable.
Recommended optional programme componentes	Not applicable.
Course contentes	1- Unit Systems. Scalars and vectors. 2- Mechanics - kinematics basic concepts, forces, energy. 3- Waves. Nature and propagation of light. 4- Electromagnetic spectrum. Color theory.
Recommended or required Reading	- Resnick, H.(2009). *Fundamentos de Física*. (Vol. 2º). Brasil: Livros Técnicos e Científicos - Hewitt, P.(2002). *Fisica Conceitual*. Brasil: Bookman - Silva, C.(0). *Sebenta de Elementos de Física*.Acedido em14 de setembro de 2018 em http://doctrino.ipt.pt/
Planned learning activities and teaching methods	Lectures. Theoretical/practical classes including laboratorial practice.
Assessment Methods and criteria	Written test during regular examination period worth 20 points.
Language of Instruction	Portuguese
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	History of Photography 1
Course unit code	964528
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)	Miguel Duarte Antunes da Silva Jorge
Learning outcomes of the course unit	The students should be able to acquire cultural, political and historical references that will allow them to watch and interpret photos; watch, interpret and identify photographers; understand and reflect about the most important events in the history of photography.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Not applicable.
Recommended optional programme componentes	Not applicable.
Course contentes	1. Is there such a thing as a prehistory of photography 2. The 19th century 3. The Portuguese photography within History 4. And now, which photography?
Recommended or required Reading	- Duarte, M.*A Indumentária: proposta fotográfica para uma reflexão baseada na imagem.*. Évora: Universidade de Évora [tese de Doutoramento]. - Helmut, G.(1982). *The Origins of Photography*. Nova Iorque: Abbeville Press. - Rosemblum, N.(1998). *A World History of Photography*. Nova Iorque: Editions Abbeville - Szarkowski, J.(1998). *The Photographer's Eye*. Nova Iorque: The Museum of Modern Art - Soudo, J.*Fotografias Efémeras*. Tomar: Instituto Politécnico de Tomar [tese de Mestrado].
Planned learning activities and teaching methods	Lectures supported by case study analysis and multimedia presentations
Assessment Methods and criteria	Two written tests (40% of the final mark)and research works (60%). A minimum mark of 10/20 in both assessment components is required to pass.
Language of Instruction	Portuguese
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	Photography 1
Course unit code	964525
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	6
Name of Lecturer(s)	Valter Nuno Garcez da Silva Ventura
Learning outcomes of the course unit	The students will learn the fundamentals of the photographic process, its history and present applications. On completion of the module the students should be able to operate a 35mm camera and have a good command of the basic laboratory techniques.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Not applicable.
Recommended optional programme componentes	Not applicable.
Course contentes	1st module: EVIDENT AND LATENT DARKING PROCESS 2nd module: THE STEENOPETIC CHAMBER 3rd: INTRODUCTION TO THE PHOTOGRAPHIC CAMERA
Recommended or required Reading	- Langford, M.(2009). *Tratado de Fotografia*. .: Omega - Hedgecoe, J.(1991). *Manual do Laboratório Fotográfico*. Lisboa: Dinalivro - Adams, A.(1995). *The Camera*. .: Ansel Adams - Renner, E.(2008). *Pinhole Photography*. .: Focal Press
Planned learning activities and teaching methods	Given the markedly technological characteristics of the subject under study, the development of the program will be essentially practical. For each module will be proposed an exercise, to be performed individually.
Assessment Methods and criteria	The assessment of learning will be done in a continuous maner. The theoretical and practical knowledge will be evaluated through the presentation, defense and discussion of the proposed practical work, through portfolio. Participation in practical classes (30%). Portfolio presentation (70%)
Language of Instruction	Portuguese | **Mentoring in** English
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	Art History and Theory 2
Course unit code	964532
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
Name of Lecturer(s)	Valter Nuno Garcez da Silva Ventura
Learning outcomes of the course unit	The students should acquire visual culture that will allow them to identify and discriminate between the different creative languages across history and understand the use of image across time as a vehicle for power and spirituality and how its codes accumulated and subsist to the present day.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Not applicable.
Recommended optional programme componentes	Not applicable.
Course contentes	Modern Age: Mannerism and Baroque Contemporary Age: Vanguards and ruptures
Recommended or required Reading	- Calinescu, M.(1999). *As Cinco Faces da Modernidade*. Lisboa: Vega - Huyghe, R.(1998). *O Poder da Imagem*. Lisboa: Edições 70 - Gombrich, E.(1995). *The Strory of Art*. Londres: Phaidon Press
Planned learning activities and teaching methods	Lectures.
Assessment Methods and criteria	Continuous assessment: class attendance and constructive participation (20%) + frequency (80%) Final exam (100%) Assessment of answers, requiring interpretation and problematization thinking. answers.
Language of Instruction	Portuguese
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	Chemistry 2
Course unit code	964535
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
Name of Lecturer(s)	Maria Teresa da Luz Silveira
Learning outcomes of the course unit	Development of capacities for the comprehension of general chemistry and its application in the graphic processes, Comprehension of the chemical variables within the process.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Not applicable.
Recommended optional programme componentes	Not applicable.
Course contentes	Theoretical component: 1 - Ionic balance 2 - Redox reactions 3 - Organic Chemistry 4- Chemistry of black and white photography. Pratical component: Study of the superadivity, of concentration, of pH and of the development time of a positiv.
Recommended or required Reading	- Stroebel, L. e Compton, J. e Current, I. e Zakia, R. (2000). *Basic Photographic Materials and Processes*. Boston: Focal Press - Atkins, P.(1989). *General Chemistry*. Nova Iorque: Scientific American - Hirsch, R.(1991). *Photographic Possibilities ? The expressive use of ideas, materials and processes*. Boston: Focal Press - Chang, R. e Goldsby, K. (2013). *Química*. New York: McGraw Hill
Planned learning activities and teaching methods	Lectures and laboratory classes in which the students will learn how to manage the chemical processes variables.
Assessment Methods and criteria	NA
Language of Instruction	Portuguese
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	Digital Photography 2
Course unit code	964533
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)	Miguel Duarte Antunes da Silva Jorge
Learning outcomes of the course unit	The purpose of this course is to provide the students with basic knowledge of photography that will allow them to understand the basic notions of Digital Photography, image capture and edition.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Not applicable.
Recommended optional programme componentes	Not applicable.
Course contentes	1st semester: Processes for the creation and manipulation of digital images using the software Adobe CS5. 2nd semester: digital camera operation techniques - photometry for digital photography - colour temperature - digital noise control
Recommended or required Reading	- Evening, M.(2014). *Adobe Photoshop CC for Photographers*. New York: Focal Press
Planned learning activities and teaching methods	Theoretical-practical classes supported by practical exercises. Laboratory practices fostering the photographic research and student autonomy.
Assessment Methods and criteria	Continuous assessment: practical exercises, class performance and attendance. Theoretical/practical tests.
Language of Instruction	Portuguese
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	History of photography 2
Course unit code	964534
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
Name of Lecturer(s)	Valter Nuno Garcez da Silva Ventura
Learning outcomes of the course unit	The aim of the UC of History of Photography 2 is to create a framework of technological, cultural and sociopolitical references, based on a historical context, allowing the student to develop a critical analysis based on knowledge and understanding of historical facts related to the image.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Not applicable.
Recommended optional programme componentes	Not applicable.
Course contentes	This UC will introduce concepts and historical framework around photographic production from the beginning of the twentieth century to the present. The content progresses chronologically, being organized into thematic groups that intersect and relate.
Recommended or required Reading	- Sena, A.(1998). *História da imagem fotográfica em Portugal, 1839-1997*. .: Porto Editora - Gilardi, A.(2000). *Storia sociale della fotografia*. .: Ed. Bruno Mondadori - Rosemblum, N.(1998). *Une histoire mondiale de la photographie*. .: Editions Abbeville - Szarkowski, J.(2007). *The Photographer's Eye*. New York: The Museum of Modern Art
Planned learning activities and teaching methods	Lectures supported by case study analysis and multimedia presentations
Assessment Methods and criteria	Continuous evaluation: class attendance and constructive participation (20%) + frequency (80%) Final exam (100%) Assessment of answers, requiring interpretation and problematization.
Language of Instruction	Portuguese | **Mentoring in** English
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	Optics
Course unit code	964536
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)	Carla Alexandra de Castro Carvalho e Silva
Learning outcomes of the course unit	Students should have acquired such concepts as the physical principles associated with the Theory of Light, the electromagnetic spectrum and chromatic properties of an object as well as the fundamental concepts of Optics that enable them to understand the behaviour of mirrors and lenses.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Not applicable.
Recommended optional programme componentes	Not applicable.
Course contentes	1? Light properties and propagation. Colour analysis. 2? Fundamentals and basic laws of Geometric Optics. 3? Light refraction. 4? Spherical lenses 5? Light reflection.
Recommended or required Reading	- Resnick, H.(2009). *Fundamentos de Física - vol.4 Óptica e Física Moderna*. (Vol. 4). Brasil: Livros Técnicos e Científicos - Silva, C.(0). *Sebenta de Óptica*.Acedido em19 de fevereiro de 2018 em https://doctrino.ipt.pt/course/view.php?id=3203
Planned learning activities and teaching methods	Lectures. Theoretical/practical classes including laboratorial practice. Practical assignments in the Physics laboratory.
Assessment Methods and criteria	Laboratorial assignments worth 3 points (out of a 0-20 grading scale) Written test during the regular examination period worth 17 points.
Language of Instruction	Portuguese
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	Photography 2
Course unit code	964531
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)	Marta Sicurella
Learning outcomes of the course unit	The proposed program aims to introduce students to the fundamental concepts of the black and white photographic process and its current applications. At the end the student must know how to operate a 35mm camera in all its technical functions and master the techniques of BW laboratory
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Not applicable.
Recommended optional programme componentes	Not applicable.
Course contentes	Module 1: APERTURE AND SHUTTER SPEED Module 2: LENSES Module 3: BW PRINTING TECHNIQUES Module 4: FINAL PROJECT
Recommended or required Reading	- Langford, M.(2009). *Tratado de Fotografia*. .: Omega - Hedgecoe, J.(1991). *Manual do Laboratório Fotográfico*. Lisboa: Dinalivro - Adams, A.(1995). *The Camera*. .: Ansel Adams - Soudo, J. e Silveira Ramos, M. (2005). *Manual de Técnicas Fotográficas*. Lisboa: Cenjor
Planned learning activities and teaching methods	Theoretical-practical classes where practical cases are proposed, through the application of basic photographic and printing techniques.
Assessment Methods and criteria	Assessment is continuous. Learning will be evaluated through discussion of practical works (60% of final grade). At the end of each module a theoretical test (40% of final grade) will be proposed. Students who do not attend at least 2/3 of the classes, and those who do not get a minimum of 8/20 points in the theoretical part and in the practical part, will be excluded from the exam.
Language of Instruction	Portuguese | **Mentoring in** English
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	Applied Optics
Course unit code	964542
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)	Rui Manuel Domingos Gonçalves
Learning outcomes of the course unit	The students should be able to deal with problems and solve them for obtaining quality optical systems used in photography.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	NA
Recommended optional programme componentes	Not applicable.
Course contentes	1-The role of lenses in photography. 2-Requirements for Optical photography. 3-The formation of images using simple optical systems. 4-The formation of images using compound lens systems - its performance. 5-Geometric and colour aberrations. 6-The speed of lenses. 7-Stray light in the images. 8-Resolving power of lenses and imaging systems. 9-Depth of field and depth of focus.
Recommended or required Reading	- F. Ray, S.(1994). *Photographic - Lenses & Optics*. New York: Focal Press - F. Ray, S.(1994). *Technology & Imaging Science*. New York: Focal Press - F. Ray, S.(2002). *Applied Photographic Optics*. New York: Focal Press - Gonçalves, R.(2015). *Sebenta de Óptica Aplicada - Foto*. ESTT-IPT: UDMF-ESTT-IPT
Planned learning activities and teaching methods	Lectures exploring the concepts related with the construction of quality images. Experimental work.
Assessment Methods and criteria	Students are evaluated by their performance in class and written tests at the end of the semester.
Language of Instruction	Portuguese | **Mentoring in** English
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	Digital Photography 3
Course unit code	964539
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)	Álvaro Francisco Magalhães Teixeira
Learning outcomes of the course unit	a)To acquaint students with the basic concepts of digital photographic process. b)Develop a workflow optimizing technical and human resources for the production of photographic images from digital equipment. c)Assimilate the contrast,colour,density, and sharpening concepts. d)Human skin retouching.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Not applicable.
Recommended optional programme componentes	Not applicable.
Course contentes	1 - Workflow with RAW files and management of digital images in Adobe® Bridge® 2 - Introduction to digital retouching of human skin.
Recommended or required Reading	- Fuqua, P. e Hunter, F. *Light, Science & Magic, An introduction to photographic lighting*. .: Focal Press - Evening, M.(2018). *Adobe Photoshop CC for Photographers - 2018 Edition* . New York: Focal Press
Planned learning activities and teaching methods	Theoretical/Practical classes
Assessment Methods and criteria	The assessment is obtained through 2 individual presentations, document texts (30%) and practical works (50%), and attendance (20%). The student is approved with 10 values or more. Only students with a minimum of 7 values in the assessment process regular will be admitted to exam. The exam is divided in two parts, a theoretical (37,5%) and practical examination (62,5%).
Language of Instruction	Portuguese
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	Image Theory 1
Course unit code	964538
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)	Nuno Miguel de Sousa Vieira
Learning outcomes of the course unit	The students should acquire reflection and analysis skills concerning images and their use. They should also be able to criticise their own work based on case study analysis.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Not applicable.
Recommended optional programme componentes	Not applicable.
Course contentes	Accumulated codes and a reflection on the era of reproducible image The Symbol, the Sign, the Icon. The photographic image regarded from a modern point of view. Image as imitation, mediation or vestige of reality. Photography and Modernity. Photography as a panoptic instrument. Image in the post-historical threshold. Narrative image: edition. Realit and Fiction. Image, Time and Memory.
Recommended or required Reading	- Hall, E.(1986). *A Dimensão Oculta*. (Vol. 1). Lisboa: Relógio d'Água - Bouleau, C.(1966). *Tramas – La Geometría Secreta de Los Pintores*. (Vol. 1). Madrid: AKAL - Barthes, R.(1980). *A Câmara Clara*. Lisboa: Edições 70 - Arnheim, R.(1990). *O Poder do Centro – Um Estudo da Composição nas Artes Visuais*. (Vol. 1). Lisboa: Edições 70
Planned learning activities and teaching methods	Lectures.
Assessment Methods and criteria	One mid-term test and/or final exam.
Language of Instruction	Portuguese
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	Photography 3
Course unit code	964537
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)	Duarte Pinto Coelho Amaral Netto
Learning outcomes of the course unit	Provide the students with technical and creative knowledge that will allow them to maximise available tools for multi-purpose photographic production using small- and medium-size cameras, any photosensitive support, any type of lighting and any light spectrum.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Not applicable.
Recommended optional programme componentes	Not applicable.
Course contentes	Handling any type of camera and lens; perspective; magnification; depth of field; basic photometry; ISO scale; the portrait as a way to understand the other; representation of a place; integrated and autonomous photometers; analogue and digital photosensitive supports; chemical and digital processing. Magnification from any support. Colour theory. Lighting sources and light modelling.
Recommended or required Reading	- Soudo, J. e Ramos, M. (2008). *Manual de Cor Fotográfica*. Lisboa: Cenjor/IEFP (www.opac.iefp.pt) - Soudo, J. e Ramos, M. (2008). *Manual de Iluminação Fotográfica*. Lisboa: Cenjor/IEFP (www.opac.iefp.pt) - Ramos, M. e Soudo, J. (2008). *Manual de Óptica Fotográfica*. Lisboa: Cenjor/IEFP (www.opac.iefp.pt) - Soudo, J. e Ramos, M. (2008). *Manual de Técnicas Fotográficas*. Lisboa: Cenjor/IEFP (www.opac.iefp.pt)
Planned learning activities and teaching methods	Lectures supported by case study analysis and brainstorming.
Assessment Methods and criteria	Written test (20%), Studio and field work essays (70%), continuous avaluation (10%) Minimum grade of 7 (seven) to be accepted for exam. Exam - Written test (30%), missing studio and field work essays (70%)
Language of Instruction	Portuguese
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	Sensitometry 1
Course unit code	964541
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)	Rui Manuel Domingos Gonçalves
Learning outcomes of the course unit	The students should familiarise themselves with the concepts and techniques involved in the selection and handling of photosensitive materials, either chemically or physically, in order to get accurate results.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	NA
Recommended optional programme componentes	Not applicable.
Course contentes	1-Fundamental concepts - Physics and Mathematics. 2-Natural and Artificial Light Sources. 3-Human Eye. 4-Sensitometry - densitometers, sensitometric results, sensitometric and Metering Applications.
Recommended or required Reading	- Spencer, D.(1971). *Applied Photography*. New York: Focal Press Limited - Eggleston, J.(1990). *Sensitometry for Photographers*. New York: Focal Press - Gonçalves, R.(2015). *Sebenta de Sensitometria - Foto*. ESTT-IPT: UDMF-ESTT-IPT
Planned learning activities and teaching methods	Lectures exploring the theoretical concepts related with light and the forms of capturing it. Image sensors tests - analogue systems.
Assessment Methods and criteria	Students are evaluated by their performance in class and written tests at the end of the semester.
Language of Instruction	Portuguese | **Mentoring in** English
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	Silver Printing Processes
Course unit code	964540
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)	Alexandre José de Magalhães Figueiredo Tiago Alexandre Figueiredo Cacheiro
Learning outcomes of the course unit	On completion of this module the students should be familiarised with non-conventional photographic processes, have developed learning and critical skills, be able to handle with photographic chemistry and to describe procedures and materials.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Not applicable.
Recommended optional programme componentes	Not applicable.
Course contentes	Density. Papel for photographic printing. The printing process: salted paper. The printing process: albumen. The printing process: matt albumen. The wet plate collodion. The enlarged negative. The printing out paper. Printing-out paper tonners. Developing paper. Developing paper tonners.
Recommended or required Reading	- , .(2007). *The Book of Alternative Photographic Processes*. New York: Delmar Cengage Learning - , .(1980). *Albumen and salted paper book*. New York: Light Impressions - , .(1958). *Photographic Chemistry*. (Vol. 2). London: Fountain Press - , .(1979). *The Keepers of Light*. New York: Morgan & Morgan - Anderson, C.(2018). *Salted paper printing - A step by step manual highlighting contemporary artists*. New York: Focal Press
Planned learning activities and teaching methods	Lectures and laboratory classes (practice and experimentation).
Assessment Methods and criteria	The assessment is continuous and consists of: • Presence, participation, attendance - 5% • 4 exercises practical - 25% • 1 written assessment test - 20% • 1 research paper - 15% • Final project - 35% Practice sheets and / or reports must be submitted no later than one week after the exercise in question on the risk of 1 value penalty for each day of delay. All assessment elements must be presented and delivered by the last class of the contact period. However, if the student needs more time to complete the final project, the presentation may be postponed to the exam season without prejudice to the assessment. Since the only component that can be evaluated during subsequent seasons is the final project. Students who do not obtain a final grade equal to or higher than 8/20 are excluded from subsequent seasons.
Language of Instruction	Portuguese
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	Digital Capture Systems
Course unit code	964548
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	4
Name of Lecturer(s)	Miguel Duarte Antunes da Silva Jorge
Learning outcomes of the course unit	The students should be able to identify and discriminate between the different image capture systems, i.e. analogue and digital cameras.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Not applicable.
Recommended optional programme componentes	Not applicable.
Course contentes	Describe and compare digital DSLR cameras, 35mm and medium-size analogue cameras.
Recommended or required Reading	- Steinhoff, S.(2009). *Scanning Negatives and Slides: Digitizing Your Photographic Archives*. (pp. 1-256). Richmond : Rocky Nook - Ctein, C.(2010). *Restoration from Start to Finish: How to repair old and damaged photographs*. (pp. 1-448). Mishawaka: Focal Press - Kennedy, J.(0). *Digitally Archive and Share Historical Photographs, Documents, and Audio Recordings*.Acedido em19 de fevereiro de 2017 em http://archivehistory.jeksite.org/index.htm - Koren, N.(0). *Scanners*.Acedido em19 de fevereiro de 2017 em http://www.normankoren.com/scanners.html
Planned learning activities and teaching methods	Studio and digital lab classes.
Assessment Methods and criteria	Continuous assessment and reports. Individual project. Theoretical and practical exam.
Language of Instruction	Portuguese
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	Digital Photography 4
Course unit code	964545
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)	Álvaro Francisco Magalhães Teixeira
Learning outcomes of the course unit	a)Developing a workflow for fashion,beauty and advertising photo shoots. b) Demonstrate to students advanced concepts of digital retouching of skin human applied to fashion and beauty work. c)Developing methodologies for creating fictional photographic images.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Not applicable.
Recommended optional programme componentes	Not applicable.
Course contentes	1-Advanced techniques of human skin retouching 2- Production of photographic images of fictional reality.
Recommended or required Reading	- Fuqua, P. e Hunter, F. *Light, Science & Magic, An introduction to photographic lighting*. .: Focal Press - Evening, M.(2018). *Adobe Photoshop CC for Photographers 2018 Edition*. New York: Focal Press
Planned learning activities and teaching methods	Theoretical/Practical classes
Assessment Methods and criteria	The assessment is obtained through 2 individual presentations, document texts (30%) and practical works (50%), and attendance (20%). The student is approved with 10 values or more. Only students with a minimum of 7 values in the assessment process regular will be admitted to exam. The exam is divided in two parts, a theoretical (37,5%) and practical examination (62,5%).
Language of Instruction	Portuguese
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	Gold, Platinum and Pigment Printing Processes
Course unit code	964546
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)	Alexandre José de Magalhães Figueiredo
Learning outcomes of the course unit	Identify and distinguish gold, platinum and pigment printing processes. Understand the nature of materials used. Autonomously execute all the printing processes covered. Promote critical sense and autonomy. Apply printing techniques in the execution of creative project.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Not applicable.
Recommended optional programme componentes	Not applicable.
Course contentes	1) Selection and preparation of supports 2) Digital and analog arrays 2) Awareness and processing 4) Printing on dichromate colloid, dichromate gum; 5) Iron salt, cyanotype and platinotype printing; 6) Printing based on organic pigments, antotypy. Project should be done using one of these printing techniques or a combination of several
Recommended or required Reading	- Nadeau, L.(1986). *Modern Carbon Printing*. London: LNR - Anderson, C.(2019). *Cyanotype: The Blueprint in Contemporary Practice (Contemporary Practices in Alternative Process Photography)*. London: Focal Press - Scopick, D.(1991). *The gum bichromate book: non silver methods for photographic printmaking*. London: Focal Press - Arentz, D.(2000). *Platinum and Palladium Printing*. London: Focal Press
Planned learning activities and teaching methods	Expository, lectures taught using the projection interface of slides that articulate with laboratory practice where the experimentation and application of the knowledge acquired in the context of lectures.
Assessment Methods and criteria	The assessment is continuous and consists of: • Presence, participation, attendance - 5% • 4 exercises practical - 25% • 1 written assessment test - 20% • 1 research paper - 15% • Final project - 35% Practice sheets and / or reports must be submitted no later than one week after the exercise in question on the risk of 1 value penalty for each day of delay. All assessment elements must be presented and delivered by the last class of the contact period. However, if the student needs more time to complete the final project, the presentation may be postponed to the exam season without prejudice to the assessment. Since the only component that can be evaluated during subsequent seasons is the final project. Students who do not obtain a final grade equal to or higher than 8/20 are excluded from subsequent seasons.
Language of Instruction	Portuguese
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	Image Theory 2
Course unit code	964544
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	4
Name of Lecturer(s)	Valter Nuno Garcez da Silva Ventura
Learning outcomes of the course unit	To think critically about the production, editing, reading and consequences of the image, in a contemporary theoretical context.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Not applicable.
Recommended optional programme componentes	Not applicable.
Course contentes	Photography and the stereotypical look. Image, likelihood and reality. Ephemeral fixation. Point of view. Index and maps of the look. Time and contemplation.
Recommended or required Reading	- WALL, J.(0). *Marks of Indiference*.Acedido em20 de setembro de 2019 em http://www.art.ucla.edu/photography/downloads/Wall001.pdf - FLUSSER, V.(0). *Filosofia da Caixa Preta*.Acedido em20 de setembro de 2019 em http://www.iphi.org.br/sites/filosofia_brasil/Vilém_Flusser_-_Filosofia_da_Caixa_Preta.pdf - FONTCUBERTA, J.(0). *El Beso de Judas*.Acedido em20 de setembro de 2019 em https://4fotoperiodismo.files.wordpress.com/2013/01/fontcuberta_elbesodejudasfotografiayverdad.pdf - SONTAG, S.(0). *Sobre Fotografia*.Acedido em20 de setembro de 2019 em http://baixar-download.jegueajato.com/Susan%20Sontag/Sobre%20fotografia%20(635)/Sobre%20fotografia%20-%20Susan%20Sontag.pdf
Planned learning activities and teaching methods	Theoretical lectures. Resolution presentation and discussion of exercises.
Assessment Methods and criteria	Weekly delivery of practical work (50%) + Frequency (50%). Exam (100%)
Language of Instruction	Portuguese
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	Photography 4
Course unit code	964543
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)	Duarte Pinto Coelho Amaral Netto
Learning outcomes of the course unit	Provide the students with technical and creative knowledge that will allow them to became autonomous in their creative thinking.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Not applicable.
Recommended optional programme componentes	Not applicable.
Course contentes	Studio flash lights and speedlights; direct flash and bounced light; flash in backlight situations; balancing flash light with ambient light; simulating the sun with a flash light: Studio flash for portraits, lighting for glass e opaque objects.
Recommended or required Reading	- Soudo, J. e Ramos, M. (2008). *Manual de Cor Fotográfica*. Lisboa: Cenjor/IEFP (www.opac.iefp.pt) - Soudo, J. e Ramos, M. (2008). *Manual de Iluminação Fotográfica*. Lisboa: Cenjor/IEFP (www.opac.iefp.pt) - Ramos, M. e Soudo, J. (2008). *Manual de Óptica Fotográfica*. Lisboa: Cenjor/IEFP (www.opac.iefp.pt) - Soudo, J. e Ramos, M. (2008). *Manual de Técnicas Fotográficas*. Lisboa: Cenjor/IEFP (www.opac.iefp.pt)
Planned learning activities and teaching methods	Lectures supported by case study analysis and brainstorming.
Assessment Methods and criteria	Written test (20%), asignments with written reports (70%), continuous avaluation (10%) Minimum grade of 7 (seven) to be accepted for exam. Exam - Written test (30%), missing assignments (70%)
Language of Instruction	Portuguese | **Mentoring in** English
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	Sensitometry 2
Course unit code	964547
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	4
Name of Lecturer(s)	Rui Manuel Domingos Gonçalves
Learning outcomes of the course unit	Apprehending the concepts and techniques involved in characterizing modern photosensitive materials, so that we can improve and monitor the results in obtaining the digital photographic records.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Basics of mathematics.
Recommended optional programme componentes	Not applicable.
Course contentes	1-Photoelectric Effect. 2-Digital detector. 3-Current CCD/CMOS Color sensor. 4-Digital Performance. 5-Examples of Scientific Application of Digital Image.
Recommended or required Reading	- Eggleston, J.(1990). *Sensitometry for Photographers*. New York: Focal Press - Spencer, D.(1971). *Applied Photography*. New York: Focal Press Limited - Gonçalves, R.(2015). *Sebenta de Sensitometria - Foto*. ESTT-IPT: UDMF-ESTT-IPT
Planned learning activities and teaching methods	Lectures in which they teach the concepts, principles and knowledge related to light and modes to register with modern sensors. Tests and methods of operation of modern digital systems for image registry.
Assessment Methods and criteria	A written test which evaluate the knowledge and skills acquired by the student.
Language of Instruction	Portuguese | **Mentoring in** English
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	Chromogenic Processes
Course unit code	964552
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)	Alexandre José de Magalhães Figueiredo
Learning outcomes of the course unit	On completion of this module students should: - Understand the basics of color (meaning, interactions) - Understand the most common color print processes - Have an overview of the historical evolution of color processes - Have gained awareness of color adjustment - Be able to print in color.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Not applicable.
Recommended optional programme componentes	Not applicable.
Course contentes	Color: interactions, relativity, history and psycology. Color enlargment. Chromogenic negatives and colour prints. The different print processes. Color analysis methods. History of the chromogenic process.
Recommended or required Reading	- Hirsch, R.(2011). *Exploring Color Photography: from film to pixeis*. London: Focal Press - Wall, E.(1925). *The History of Three-Color Photography*. Boston: American Photographic Publishing Company - Coe, B.(1978). *Color Photography, the first hundred years 1840-1940*. London: Ash & Grant - Welford, S.(1971). *L.P.Clerc's Photography Teory and Practice, #6 Colour Processes*. (Vol. 6). London: Focal Press
Planned learning activities and teaching methods	Lectures exploring the theoretical contents and laboratory classes (practice and experimentation).
Assessment Methods and criteria	The assessment is continuous and consists of: • Presence, participation, attendance - 5% • 4 exercises practical - 25% • 1 written assessment test - 20% • 1 research paper - 15% • Final project - 35% Practice sheets and / or reports must be submitted no later than one week after the exercise in question on the risk of 1 value penalty for each day of delay. All assessment elements must be presented and delivered by the last class of the contact period. However, if the student needs more time to complete the final project, the presentation may be postponed to the exam season without prejudice to the assessment. Since the only component that can be evaluated during subsequent seasons is the final project. Students who do not obtain a final grade equal to or higher than 8/20 are excluded from subsequent seasons.
Language of Instruction	Portuguese
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	Critique on Contemporary Photography 1
Course unit code	964551
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)	Nuno Miguel de Sousa Vieira
Learning outcomes of the course unit	a) develop and enhance the knowledge on practices A.C. and F .; b) Crossing the information on the practice of A.C. and F .; c) Provide analytical tools adapted to reflect the practice of photography; d) Identify the F. practice of contingencies in contemporary times;
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Not applicable
Recommended optional programme componentes	Not applicable
Course contentes	1. Operating fields and definition of concepts taking as its starting point the production side. 2. Modernism, criticism and refounding: 3. Contemporary art in general and photography in particular and its multiple directions and conceptual contingencies.
Recommended or required Reading	- Marleau-Ponty , M.(2000). *O Olho e o espírito*. Lisboa: Vega - Barthes, R.(2012). *A Câmara Clara*. .: Edições 70 - Baudelaire, C.(2004). *O Pintor da Vida Moderna*. Lisboa: Vega - Didi-Heberman, G.(2013). *O Que Vemos, O Que nos Olha*. Lisboa: Editora 34 - A., C.(2005). *Teorias da Arte*. (Vol. 1). São Paulo: Martins Fontes
Planned learning activities and teaching methods	Theoretical classes, debates, case studies, text analysis, individual and group presentations.
Assessment Methods and criteria	Presentation, defense and discussion of individually proposed practical work (70%) The evaluation is continuous (30%) Students who have not attended at least 2/3 of the classes during the semester will be excluded from the final evaluation.
Language of Instruction	Portuguese
Work placement(s)	Not applicable

B - Description of individual course units

Course unit title	Photography 5
Course unit code	964549
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)	Marta Sicurella
Learning outcomes of the course unit	Provide the students with technical and creative knowledge that allows them to maximise available resources for multipurpose photographic production using any sort of camera, photosensitive support on any sort of lighting from any spectrum of light.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Not applicable
Recommended optional programme componentes	Not applicable
Course contentes	Large format cameras Architecture Photography Analytical photometry: the Zone system. Photography books: edition and production.
Recommended or required Reading	- Adams, A.(1995). *The Negative*. New York: Amazon - Adams, A.(1995). *The Camera*. New York: Amazon - Lowrie, C. e Meadhra, M. (2007). *Exposure & Lighting for Digital Photographers only*. New York: Wiley Publishing, Inc. - Simons, S.(2015). *Using View Camera*. New York: Amphoto
Planned learning activities and teaching methods	Lectures supported by case study analysis and multimedia presentations. Practical classes: case study analysis, individual and group assignments, fieldwork, studio work, analogue and digital laboratory.
Assessment Methods and criteria	Continuous assessment: 3 presentations and 3 written tests, valued at 40% of the final grade; 4 practical exercises with report valued at 60% of final grade.
Language of Instruction	Portuguese | **Mentoring in** English
Work placement(s)	Not applicable

B - Description of individual course units

Course unit title	Photography Project 1
Course unit code	964550
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	8
Name of Lecturer(s)	Duarte Pinto Coelho Amaral Netto
Learning outcomes of the course unit	The students will develop individual projects which reveal their creative skills and apply taught concepts and principles. The Project should be based on a personal motivation and on a deep reflection on its underlying theme and context.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Not applicable.
Recommended optional programme componentes	Not applicable.
Course contentes	Students will discuss the way of different authors in photography. Personal Projects will be monitored with teacher individually and in group, in their several phases of development. (work in progress).
Recommended or required Reading	- Mirzoeff, N.(1999). *An Introduction to Visual Culture*. .: Routledge - Chevalier, J. e Gheerbrant, A. (1994). *Dicionário de Símbolos*. Portugal: Teorema - Fried, M.(2008). *Why Photography Matters as Art as Never Before*. USA: Yale University Press
Planned learning activities and teaching methods	Group and individual tutorials. Practical classes: case study analysis, individual and group assignments, fieldwork, studio work, analogue and digital laboratory.
Assessment Methods and criteria	With a pre-established periodicity, the projects will be analyzed according to the concept of "work in progress". The Draft Exhibition and its report will be presented publicly. Project + Presentation - 80% Continuous assessment - 20%
Language of Instruction	Portuguese | **Mentoring in** English
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	Contemporary Photography Thinking 2
Course unit code	964555
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	6
Name of Lecturer(s)	Nuno Miguel de Sousa Vieira
Learning outcomes of the course unit	The students should have an understanding of how photography evolved across time and its impact on contemporary thought, culture and art. They should gain critical and analysis skills in order to view photography as a photographic corpus.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Not applicable.
Recommended optional programme componentes	Not applicable.
Course contentes	Photography and cinema. Video art. Fiction and reality, the photographic construction. Analogies and appropriations in contemporary photography. Photography and the installation.
Recommended or required Reading	- Ardenne, P.(2006). *Un arte contextual ? Creación artística en médio urbano, en situación, de intervención, de participación*. Murcia: cendeac - Danto, A.(2006). *Apos o fim da arte, a arte contemporanea e os limites da historia*. Sao Paulo: EDUSP - DOHERTY, C.(2009). *Situation*. Massachusetts:: Whitechapel Gallery - The MIT Press - BARTHES, .(2003). *A camara clara*.. Lisboa: Vega
Planned learning activities and teaching methods	This module is delivered in the form of seminar. Students will have the opportunity to attend a series of conferences on contemporary photography related themes.
Assessment Methods and criteria	Assessment is based on practical assignments and its oral presentation done individually or as part of a group.
Language of Instruction	Portuguese | **Mentoring in** English
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	Digital Printing and Colour Management
Course unit code	964557
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	6
Name of Lecturer(s)	Álvaro Francisco Magalhães Teixeira
Learning outcomes of the course unit	On completion of this module the students should be familiarised with the digital print process, be able to produce photographic proofs with accuracy and efficiency. They should be able to create a colour management system in order to control colour information from capture to printing.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Not applicable
Recommended optional programme componentes	Not applicable
Course contentes	The phenomenon of color, its history and theories; the importance of color in the composition of an image. Digital color, applied color management, calibration and profiling for various devices. Various types of printing: inkjet, offset.
Recommended or required Reading	- BUNTING, F. e FRASER, B. e MURPHY, C. (2003). *Real World Color Management*. Berkeley: Peachpit Press - BELLANTONI, P.(2005). *If Its Purple Someone?s Going to Die: the Power of Color in Visual Storytelling*. -: Focal Press - BUCKLOW, S.(2009). *The Alchemy of Paint: Art, Science and Secrets from the Middle Ages: Colour and Meaning Fom the Middle Ages*. -: Marion Boyars Publishers - ITTEN, J.(1971). *The Elements of Color, Van Nostrand Reinhold Company*. -: -
Planned learning activities and teaching methods	Theoretical and practical classes.
Assessment Methods and criteria	The assessment is obtained through individual presentations, one document text (20%) and two practical works (60%), and attendance (20%). The student is approved with 10 values or more. Only students with a minimum of 7 values in the assessment process regular will be admitted to exam. The exam is divided in two parts, a theoretical (37,5%) and practical examination (62,5%).
Language of Instruction	Portuguese
Work placement(s)	Not applicable

B - Description of individual course units

Course unit title	Emulsions
Course unit code	964556
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	6
Name of Lecturer(s)	Alexandre José de Magalhães Figueiredo Tiago Alexandre Figueiredo Cacheiro
Learning outcomes of the course unit	To contextualize the invention of photographic emulsion. Understand colloidal chemical emulsion concepts. Control manufacturing variables of a photographic emulsion. Understand redox reactions of silver halides. Promote critical sense and autonomy. Run creative project.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Not applicable.
Recommended optional programme componentes	Not applicable.
Course contentes	Emulsions: Basics. Constituents, steps, variables in the manufacture of an emulsion. Infrared film, features and their applications. Gelatine, origin, properties and applications. Latent image theory. Theory of the chemical process of revelation. Photographic effects Substrates and additives. Characteristic curves and spectral sensitivity of a film.
Recommended or required Reading	- White, L.(1995). *Infrared Photography Handbook*. New York: Amherst Media Inc. - Wall, E.(1929). *Photographic Emultions, their preparation and coating on glass, celluloid and paper, experimentally and on large scale*. Boston: American Photographic Publishing Co. - Zakia, R. e Current, I. e Compton, J. e Stroebel, L. (2000). *Photographic Materials and Processes*. London: Focal Press - Jones, S. e Reed, M. (2001). *Silver Gelatin, a User's Guide to Liquid Photographic Emultion*. London: Argentum, Aurum Press Limited
Planned learning activities and teaching methods	Lectures exploring the theoretical contents and laboratory classes (practice and experimentation).
Assessment Methods and criteria	The assessment is continuous and consists of: • Attendance, Attendance and Attendance - 5% • 5 exercises practical - 25% • 1 written assessment test - 20% • 1 research paper - 15% • Final project - 35% Practice sheets and / or reports must be submitted no later than one week after the exercise in question on the risk of 1 penalty for each day of delay. All assessment elements must be presented and delivered by the last class of the contact period. However, if the student needs more time to complete the final project, the presentation may be postponed to the exam season without prejudice to the assessment. The only component that can be evaluated during exam, feature and special times is the final design. Students who often do not obtain a final grade equal to or higher than 8/20 are excluded from subsequent seasons.
Language of Instruction	Portuguese
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	Photography Project 2
Course unit code	964554
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	8
Name of Lecturer(s)	Valter Nuno Garcez da Silva Ventura Marta Sicurella Duarte Pinto Coelho Amaral Netto
Learning outcomes of the course unit	Development with monitoring of individual projects presented and predefined by students for this course: Photography Project 2. Students will develop individual projects which reveal their creative skills and apply taught concepts and principles. The Project should be based on a personal motivation
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Not applicable
Recommended optional programme componentes	Not applicable
Course contentes	Students will discuss the way of different authors in photography. Personal Projects will be monitored with teacher individually and in group, in their several phases of development. (work in progress).
Recommended or required Reading	- Rouillé, A.(2005). *La photographie entre document et art contemporaine*. Paris: Gallimard - Virilio, P.(1998). *la machine de la vision*. Paris: Galilée - Couchot, E.(1999). *La technologie dans l'art: de la photographie à la realitée virtuelle*. Nimes: Jaqueline Chambon - Mirzoeff, N.(1999). *An introduction to visual culture*. New York: Routledge
Planned learning activities and teaching methods	Lectures supported by case study analysis and multimedia presentations. Practical classes: case study analysis, individual and group assignments, fieldwork, studio work, analogue and digital laboratory.
Assessment Methods and criteria	With a pre-established periodicity, the projects will be analyzed according to the concept of "work in progress". The Draft Exhibition and its report will be presented to a jury. Project + Presentation - 80% Continuous assessment - 20%
Language of Instruction	Portuguese | **Mentoring in** English
Work placement(s)	Not applicable