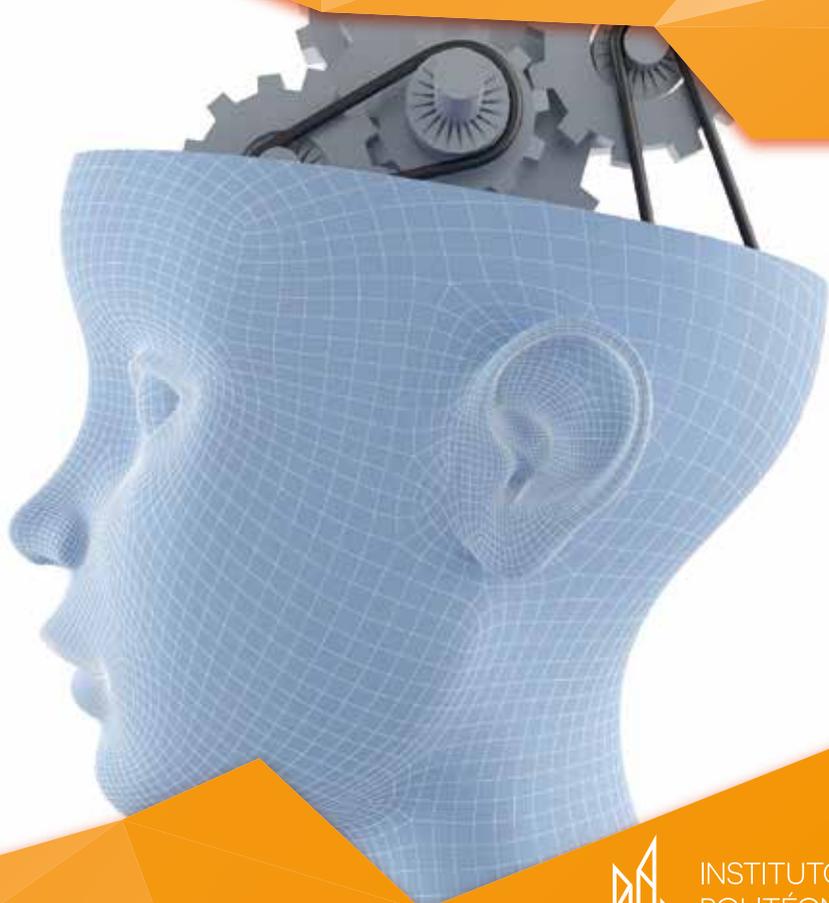


HIGHER TECHNICAL PROFESSIONAL COURSES

# DESIGN AND INDUSTRIAL INNOVATION



2017/2018 ACADEMIC YEAR



INSTITUTO  
POLITÉCNICO  
DA MAIA **IPMAIA**

# DESIGN AND INDUSTRIAL INNOVATION

## COORDINATOR

Susana Cristina Ferreira Fernandes

## CONTACT DETAILS

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This Higher Technical Professional Course is a vocational training course taught as part of polytechnic higher education and lasts 4 semesters, corresponding to 120 ECTS.

The course is organised into general and scientific training, technical training and on-the-job training (internship), and each student is awarded with a **Higher Technical Professional Diploma at level 5 of the European Qualifications Framework for Lifelong Learning**.

### 1. Professional profile

The Higher Technical Professional Course in Design and Industrial Innovation aims to train professionals **who are able to work on prospecting, devising, planning, detailing, testing and presenting new products** that have added value in terms of aesthetics, function, ergonomics, ecodesign and eco-innovation, integrating knowledge of design, 2D and 3D computer-aided design tools, management of marketing and innovation, materials, technologies and manufacturing processes.

### 2. Professional opportunities

Mid- and high-level staff in industrial development and production companies, consultancy and service companies, design and architecture studios, and as self-employed professionals working on furniture design, interior design, industrial and urban facility design, product design, communication and marketing, computer-aided manufacturing and digital prototyping, creating maquettes or models, supporting production/construction through technical drawing.

### 3. Entry requirements (one of the following)

- 3.1 Having completed a **secondary education course** qualification or a legally equivalent qualification.
- 3.2 Having passed the special exams for assessing capacity to attend higher education for **people over 23** (Decree-Law no. 64/2006 of 21 March).
- 3.3 Holding a technological specialisation diploma, a higher technical professional diploma or a higher education qualification.

#### 4. COURSE STRUCTURE

##### YEAR 1 - 60 ECTS

	Course units	Sem.	Contact hours	ECTS
<b>General and scientific training</b>	Communicating in the Portuguese Language	1	50	5
	Geometry and Technical Drawing	1	50	5
	Technical English	2	50	5
<b>Technical training</b>	Parametric 3D Modelling	2	60	6
	Computer Aided Design	1	50	5
	Creative and Communication Design	1	50	5
	Vector Design and Image Processing	1	50	5
	History and Theory of Design	1	50	5
	Industrial Design	2	60	6
	Ecodesign and Eco-innovation	2	40	4
	Materials, Technologies and Manufacturing Processes I	2	50	5
	Design and Innovation Methodologies	2	40	4
			600	60

##### YEAR 2 - 60 ECTS

	Course units	Sem.	Contact hours	ECTS
<b>Technical training</b>	Cost Analysis and Budgeting	1	40	4
	Manufacturing Design and Digital Prototyping	1	50	5
	Marketing and Innovation Management	1	50	5
	Materials, Technologies and Manufacturing Processes II	1	50	5
	3D Modelling, Rendering and Animation	1	50	5
	Innovation and Design Project	1	60	6
<b>On-the-job Training</b>	On-the-job Training – Internship (750 hours)	2		30
			300	60
		Total	900	120

# FOR FURTHER INFORMATION

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## Exclusive conditions

- Extensive parking on campus.
- A comfortable, welcoming environment throughout the campus.
- Easy access by public transport, particularly the metro at ISMAI station.
- An environment with new technologies and sport, improved with the construction of a new, state-of-the-art sports complex.

## Address

Avenida Carlos de Oliveira Campos  
Castêlo da Maia  
4475-690 Maia

**Telephone number:** (+351) 229 866 026

**E-mail:** info@ipmaia.pt



**Metro/Line C** - ISMAI

## 5. Continuing studies – Bachelor's degrees

- 5.1 The application by holders of Higher Technical Professional Diplomas to attend IPMAIA Bachelor's degrees is subject to the conditions established by the institution body that is competent to do so in accordance with the law and the statutes. Depending on the Higher Technical Professional Course and Bachelor's degree, these conditions may establish the need to pass a specific IPMAIA admission exam, or allow the exemption to perform such an exam.
- 5.2 Credits acquired on the Higher Technical Professional Course may be transferred to a Bachelor's degree programme when continuing studies.

## Observations

- a) Students who intend to apply for an IPMAIA Bachelor's degree course and must sit the specific admission exam will receive suitable preparation during the teaching of the Higher Technical Professional Course.

