

Course Unit	Science Divulgation	Field of study	Educational Sciences		
Master in	Science Education	School	School of Education		
Academic Year	2020/2021	Year of study	1	Level	2-1
Type	Semestral	Semester	2	ECTS credits	6.0
Code	5016-627-1202-00-20				
Workload (hours)	162	Contact hours	T -	TP 36	PL -
			TC -	S -	E -
			OT 18	O -	

T - Lectures; TP - Lectures and problem-solving; PL - Problem-solving, project or laboratory; TC - Fieldwork; S - Seminar; E - Placement; OT - Tutorial; O - Other

Name(s) of lecturer(s) Delmina Maria Pires, Paulo Miguel Mafra Gonçalves

#### Learning outcomes and competences

- At the end of the course unit the learner is expected to be able to:
1. Associate science with activities of daily life, particularly in social, political and economic fields.
  2. Relate scientific development with social and technological aspects.
  3. Meet important milestones in the history of science linking them to great thinkers.
  4. Recognize the interdependencies, science development in evolution of scientific ideas.
  5. Reflect on different ways of dissemination of science in diverse and interactive contexts.
  6. Discuss potential of different interactive contexts of dissemination of science.
  7. Reflect on science in Portugal and its impact.

#### Prerequisites

Before the course unit the learner is expected to be able to:  
No pre-requisitos.

#### Course contents

Science in the various dimensions of society. History of ideas in science. The dissemination of science in interactive contexts and their potential. Science in Portugal and its impact and interest in Portugal and worldwide.

#### Course contents (extended version)

1. Relevance of science in education of individuals: social; policy; economic; others.
2. History of ideas in science:
  - Milestones in history of science - From the middle age to XXI century; Great thinkers of science;
  - The academies and scientific development;
  - The evolution of scientific, constraints and interdependencies ideas.
3. The dissemination of science in interactive contexts and their potential:
  - Museums and Science centers;
  - Thematic parks;
  - Other relevant contexts (documentaries, films, publicity texts, etc. );
4. Intervention projects in everyday life that favor the scientific knowledge of science.
5. Science in Portugal and its impact and interest in Portugal and worldwide.

#### Recommended reading

1. Alexis, H. . & Torres, C. (2013). Usos de la ciencia en la publicidad televisiva colombiana. In: Universitas Humanística. (76): 447-475.
2. Dear, P. (2009). Revolutionizing the Sciences: European Knowledge and its Ambition, 1500-1700, Princeton.
3. Fernandes, J. (2011). Perspectivas sobre os discursos da divulgação da ciência. Exedra (número especial), 93-106.
4. Pirola, N. (Org.) (2010). Ensino de ciências e matemática, IV: Temas de investigação. São Paulo: Cultura Acadêmica.
5. Silva, P. , & Magalhães, C. (2012). Divulgação científica e cultura científica: Conceito e aplicabilidade. Revista Ciência em Extensão, 8 (1), 18-34.

#### Teaching and learning methods

The course has a reflective and interactive component. Although there may be some moments with a more theoretical/illustrative nature, where some contents are presented by the teacher, privilegia the analysis and reflection of texts and articles in small and large group, debate large group and the oral presentation of papers on themes.

#### Assessment methods

1. Alternative 1: Continuous Evaluation - (Regular, Student Worker) (Final)
  - Development Topics - 50% (Presentation and discussion of individual work.)
  - Presentations - 50% (Presentation and discussion of group work .)
2. Alternative 2: Rating by Exam - (Regular, Student Worker) (Supplementary, Special)
  - Final Written Exam - 100%

#### Language of instruction

Portuguese

#### Electronic validation

Delmina Maria Pires, Paulo Miguel Mafra Gonçalves	Paulo Miguel Mafra Gonçalves	Delmina Maria Pires	António Francisco Ribeiro Alves
12-11-2020	12-11-2020	12-11-2020	12-11-2020