

29724 - Thermal Engineering

Información del Plan Docente

Academic Year	2016/17
Academic center	110 - Escuela de Ingeniería y Arquitectura
Degree	434 - Bachelor's Degree in Mechanical Engineering 330 - Complementos de formación Máster/Doctorado
ECTS	6.0
Course	XX
Period	Indeterminate
Subject Type	ENG/Complementos de Formación, Compulsory
Module	---

1.Basic info

1.1.Recommendations to take this course

1.2.Activities and key dates for the course

2.Initiation

2.1.Learning outcomes that define the subject

2.2.Introduction

3.Context and competences

3.1.Goals

3.2.Context and meaning of the subject in the degree

3.3.Competences

3.4.Importance of learning outcomes

4.Evaluation

5.Activities and resources

5.1.General methodological presentation

5.2.Learning activities

5.3.Program

PART I- HEAT PRODUCTION

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1 - Solar collectors

2 - Thermochemistry of Combustion

PART II - HEAT TRANSFER

1 - Introduction to heat transfer

Heat Conduction

2 -Fundamentals of heat transfer by conduction: Fourier's Law, Heat Conduction Equation.

3 -Steady one-dimensional heat conduction. Fins.

4 -Two-dimensional and three-dimensional steady heat conduction. Numerical methods.

5 -Transient heat conduction.

Convection

6 -Fundamentals of convection.

7 -External forced convection.

8 -External forced convection.

9 -Heat exchangers.

10 -Natural convection.

11 -Boiling and condensation.

Radiation heat transfer

12 - Fundamentals of radiation heat transfer.

13 - Radiation heat transfer between surfaces.

5.4.Planning and scheduling

5.5.Bibliography and recommended resources

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