

## 220123 - Engines and Powertrains

Coordinating unit: 205 - ESEIAAT - Terrassa School of Industrial, Aerospace and Audiovisual Engineering  
 Teaching unit: 724 - MMT - Department of Heat Engines  
 710 - EEL - Department of Electronic Engineering  
 Academic year: 2019  
 Degree: BACHELOR'S DEGREE IN INDUSTRIAL TECHNOLOGY ENGINEERING (Syllabus 2010). (Teaching unit Optional)  
 ECTS credits: 3 Teaching languages: Catalan

### Teaching staff

Coordinator: MANUEL QUERA MIRO  
 Others: ANGEL COMAS AMENGUAL - ALBERT PUIG KOWERDOWICZ

### Degree competences to which the subject contributes

Specific:

1. Applied knowledge of thermal engineering
2. An understanding of, and skills for, the calculation, design and testing of machines.

### Teaching methodology

### Learning objectives of the subject

### Study load

Total learning time: 75h	Hours large group:	30h	40.00%
	Self study:	45h	60.00%

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### Content

(ENG) -Mòdul 1 : Fonaments de motors de combustió interna (MCI)	Learning time: 32h 30m Theory classes: 13h Self study : 19h 30m
(ENG) -	Learning time: 12h 30m Theory classes: 5h Self study : 7h 30m
(ENG) -Mòdul 3 : Sistemes d'alimentació dels MCI	Learning time: 12h 30m Theory classes: 5h Self study : 7h 30m
(ENG) -Mòdul 4 :Transmissió i mecànica de motors	Learning time: 17h 30m Theory classes: 7h Self study : 10h 30m
(ENG) -Pràctiques de laboratori	
Degree competences to which the content contributes: Description: (ENG) 1.-Muntatge i desmuntatge d'un MACI 2.-Muntatge i desmuntatge d'un motor Wankel 3.-Muntatge i desmuntatge d'una caixa de velocitats 4.-El sistema d'injecció de gasolina.Monopunt i multipunt 5.-Maquetes d'un vehicle.Caixa de velocitats.Diferencial	

### Qualification system

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### Bibliography

#### Basic:

Heywood, John B. Internal combustion engine fundamentals. New York: McGraw-Hill, 1988. ISBN 007028637X.

Stone, Richard. Motor vehicle fuel economy. London: McMillan, 1989. ISBN 0333438205.

Heisler, Heinz. Vehicle and engine technology. London: Edward Arnold, 1985. ISBN 0713135425.