

## 320158 - SEL - Electronic Systems

Coordinating unit: 205 - ESEIAAT - Terrassa School of Industrial, Aerospace and Audiovisual Engineering  
 Teaching unit: 710 - EEL - Department of Electronic Engineering  
 Academic year: 2019  
 Degree: BACHELOR'S DEGREE IN INDUSTRIAL DESIGN AND PRODUCT DEVELOPMENT ENGINEERING (Syllabus 2010). (Teaching unit Compulsory)  
 ECTS credits: 6 Teaching languages: Catalan

### Teaching staff

Coordinator: Joan Salaet

### Degree competences to which the subject contributes

Specific:

1. IND\_COMMON: Basic electronic knowledge

Transversal:

2. SELF-DIRECTED LEARNING - Level 1. Completing set tasks within established deadlines. Working with recommended information sources according to the guidelines set by lecturers.
3. EFFECTIVE USE OF INFORMATION RESOURCES - Level 1. Identifying information needs. Using collections, premises and services that are available for designing and executing simple searches that are suited to the topic.

### Learning objectives of the subject

### Study load

Total learning time: 150h	Hours large group:	30h	20.00%
	Hours medium group:	15h	10.00%
	Hours small group:	15h	10.00%
	Guided activities:	0h	0.00%
	Self study:	90h	60.00%

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### Content

<p>TOPIC 0: INTRODUCTION TO THE SUBJECT</p>	<p>Learning time: 1h Theory classes: 1h</p>
<p>Description:</p> <p>Related activities: AV0</p>	
	<p>Learning time: 25h Theory classes: 5h Practical classes: 3h Laboratory classes: 2h Self study : 15h</p>
<p>Description:</p>	
	<p>Learning time: 15h 10m Theory classes: 4h Practical classes: 2h Self study : 9h 10m</p>
<p>Description:</p>	
	<p>Learning time: 27h 40m Theory classes: 5h Practical classes: 2h Laboratory classes: 4h Self study : 16h 40m</p>
<p>Description:</p> <p>Related activities:</p> <p>Specific objectives:</p>	

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	<p>Learning time: 25h</p> <p>Theory classes: 5h Practical classes: 3h Laboratory classes: 2h Self study : 15h</p>
<p>Description:</p> <p>Related activities:</p> <p>Specific objectives:</p>	
	<p>Learning time: 25h</p> <p>Theory classes: 5h Practical classes: 2h Laboratory classes: 3h Self study : 15h</p>
<p>Description:</p> <p>Related activities:</p> <p>Specific objectives:</p>	
	<p>Learning time: 31h 10m</p> <p>Theory classes: 5h Practical classes: 3h Laboratory classes: 4h Self study : 19h 10m</p>
<p>Description:</p> <p>Related activities:</p> <p>Specific objectives:</p>	

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### Bibliography

#### Basic:

Floyd, Thomas L. Fundamentos de sistemas digitales [on line]. 9a ed. Madrid: Prentice Hall, 2006 [Consultation: 04/10/2018]. Available on: <[http://www.ingebook.com/ib/NPcd/IB\\_BooksVis?cod\\_primaria=1000187&codigo\\_libro=6120](http://www.ingebook.com/ib/NPcd/IB_BooksVis?cod_primaria=1000187&codigo_libro=6120)>. ISBN 9788483220856.

Malvino, Albert Paul. Principios de electrónica [on line]. 7a ed. Madrid: McGraw-Hill, 2007 [Consultation: 04/10/2018]. Available on: <[http://www.ingebook.com/ib/NPcd/IB\\_BooksVis?cod\\_primaria=1000187&codigo\\_libro=4146](http://www.ingebook.com/ib/NPcd/IB_BooksVis?cod_primaria=1000187&codigo_libro=4146)>. ISBN 9788448156190.

Banzi, Massimo. Getting started with Arduino. 2nd ed. Sebastopol (CA): O'Reilly; Make Books, 2011. ISBN 9781449309879.

#### Complementary:

Wakerly, John F. Diseño digital: principios y prácticas. 3a ed. México: Pearson Educación, 2001. ISBN 9701704045.

Margolis, Michael. Arduino cookbook. 2nd ed. Sebastopol (CA): O' Reilly, 2011. ISBN 9781449313876.