

340362 - SEAX-C9X44 - Network Security and Administration

Coordinating unit:	340 - EPSEVG - Vilanova i la Geltrú School of Engineering
Teaching unit:	744 - ENTEL - Department of Network Engineering
Academic year:	2019
Degree:	BACHELOR'S DEGREE IN INFORMATICS ENGINEERING (Syllabus 2018). (Teaching unit Compulsory) BACHELOR'S DEGREE IN INFORMATICS ENGINEERING (Syllabus 2010). (Teaching unit Compulsory) BACHELOR'S DEGREE IN ELECTRONIC SYSTEMS ENGINEERING (Syllabus 2010). (Teaching unit Optional)
ECTS credits:	6
Teaching languages:	Catalan, Spanish

Teaching staff

Coordinator:	Guasch Murillo, Daniel
Others:	Guasch Murillo, Daniel Vidal Ferré, Rafael

Opening hours

Timetable:

Prior skills

Requirements

Degree competences to which the subject contributes

Specific:

1. CEFC18. Knowledge of legislation and regulation of computing at national, european and international level.
2. CEFC5. Knowledge, management and maintenance of systems, computing services and applications.
3. CEFC8. Ability to analyze, to design, to construct and to maintain applications in a well built, secure and efficient way choosing the most adequate paradigms and languages.
4. CEIC6. Ability to understand, implement and manage security and safety of computing systems.
5. CEIC8. Ability to design, deploy, administer and manage computer networks.
6. CEIS1. Ability to develop, to maintain and evaluate programming services and systems which satisfy all requirements of user having a reliable and efficient behavior, being comprehensible to develop and maintain and observe to current rules, applying theory, principals, methods, practices of programming engineering.
7. CEIS2. Ability to assess customer needs and specify software requirements to meet these needs, reconciling conflicting goals by finding acceptable compromises within limitations arising from the cost, time, existence of systems already developed and from organizations themselves.
8. CES11. Ability to integrate solutions for Information and Communications Technology and business processes to meet information needs of organizations, enabling them to reach their goals effectively and efficiently, thus giving them competitive advantages.

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9. CESI2. Ability to determine the requirements of information and communication systems of an organization paying attention to safety aspects according to security and compliance with regulations and legislation.

10. CETI1. Ability to understand the environment of an organization and its needs in the field of information technology and communications.

11. CETI4. Ability to select, design, deploy, integrate and manage network and communications infrastructure in an organization.

12. CETI5. Ability to select, to develop, integrate and manage information systems which satisfy organization necessities with indentified costs and quality criteria.

13. CETI6. Ability to design systems, applications and services based on network technologies, including internet, website, e-commerce, multimedia, interactive services and mobile computing.

Teaching methodology

Learning objectives of the subject

Study load

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

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Content

Network access servers	Learning time: 4h Theory classes: 4h
<p>Description:</p> <p>Related activities:</p> <p>Specific objectives:</p>	
(ENG) Servidors d'accés a les dades	Learning time: 4h Practical classes: 4h

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Planning of activities

	<p>Hours: 8h Guided activities: 4h Theory classes: 4h</p>
<p>Description:</p> <p>Support materials:</p> <p>Descriptions of the assignments due and their relation to the assessment:</p> <p>Specific objectives:</p>	
	<p>Hours: 4h Theory classes: 4h</p>
<p>Description:</p> <p>Support materials:</p> <p>Descriptions of the assignments due and their relation to the assessment:</p> <p>Specific objectives:</p>	
<p>Routing</p>	<p>Hours: 16h Guided activities: 8h Theory classes: 8h</p>
<p>Description:</p> <p>Support materials:</p> <p>Descriptions of the assignments due and their relation to the assessment:</p> <p>Specific objectives:</p>	
<p>Addressing</p>	<p>Hours: 8h Guided activities: 4h Theory classes: 4h</p>

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<p>Description:</p> <p>.</p> <p>Support materials:</p> <p>.</p> <p>Descriptions of the assignments due and their relation to the assessment:</p> <p>.</p> <p>Specific objectives:</p> <p>.</p>
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.	<p>Hours: 8h</p> <p>Guided activities: 4h</p> <p>Theory classes: 4h</p>
<p>Description:</p> <p>.</p> <p>Support materials:</p> <p>.</p> <p>Descriptions of the assignments due and their relation to the assessment:</p> <p>.</p> <p>Specific objectives:</p> <p>.</p>	

.	<p>Hours: 8h</p> <p>Guided activities: 4h</p> <p>Theory classes: 4h</p>
<p>Description:</p> <p>.</p> <p>Support materials:</p> <p>.</p> <p>Descriptions of the assignments due and their relation to the assessment:</p> <p>.</p> <p>Specific objectives:</p> <p>.</p>	

<p>Network diagnostics</p>	<p>Hours: 16h</p> <p>Guided activities: 4h</p> <p>Theory classes: 12h</p>
<p>Description:</p> <p>.</p>	

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Support materials:

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Descriptions of the assignments due and their relation to the assessment:

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Specific objectives:

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Cluster of disks in network

Hours: 8h
Guided activities: 4h
Theory classes: 4h

Description:

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Support materials:

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Descriptions of the assignments due and their relation to the assessment:

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Specific objectives:

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File service

Hours: 8h
Guided activities: 4h
Theory classes: 4h

Description:

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Support materials:

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Descriptions of the assignments due and their relation to the assessment:

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Specific objectives:

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Private cloud

Hours: 8h
Guided activities: 4h
Theory classes: 4h

Description:

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Support materials:

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Descriptions of the assignments due and their relation to the assessment:

Specific objectives:

Web service

Description:

Support materials:

Descriptions of the assignments due and their relation to the assessment:

Specific objectives:

Web service

Hours: 8h
Guided activities: 4h
Theory classes: 4h

Description:

Support materials:

Descriptions of the assignments due and their relation to the assessment:

Specific objectives:

Qualification system

Regulations for carrying out activities

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Bibliography

Basic:

Hertzog, Raphaël. Debian 8. El libro del administrador de Debian [Recurs electrònic] : Debian Wheezy, desde el descubrimiento a la maestría [on line]. 2016 [Consultation: 29/02/2016]. Available on: <<https://debian-handbook.info/browse/es-ES/stable/>>.