Course guide
340362 - SEAX-C9X44 - Network Security and Administration

Unit in charge: Vilanova i la Geltrú School of Engineering
Teaching unit: 744 - ENTEL - Department of Network Engineering.

Degree: BACHELOR'S DEGREE IN INFORMATICS ENGINEERING (Syllabus 2018). (Compulsory subject).

Academic year: 2022  ECTS Credits: 6.0  Languages: Catalan, Spanish

LECTURER
Coordinating lecturer: Guasch Murillo, Daniel
Others: Guasch Murillo, Daniel
Vidal Ferré, Rafael

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. CESI1. 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.
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 identified 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

<table>
<thead>
<tr>
<th>Type</th>
<th>Hours</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Hours small group</td>
<td>60,0</td>
<td>40.00</td>
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<tr>
<td>Self study</td>
<td>90,0</td>
<td>60.00</td>
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Total learning time: 150 h
Network access servers

Description:

Specific objectives:

Related activities:

Related competencies:
I_CEFC18. Knowledge of legislation and regulation of computing at national, european and international level.
I_CEFC5. Knowledge, management and maintenance of systems, computing services and applications.
I_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.
I_CEIC6. Ability to understand, implement and manage security and safety of computing systems.
I_CEIC8. Ability to design, deploy, administer and manage computer networks.
I_CEIC16. 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.
I_CEIS2. Ability to evaluate 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.
I_CEIS1. 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.
I_CEIS2. 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.
I_CETI1. Ability to understand the environment of an organization and its needs in the field of information technology and communications.
I_CETI4. Ability to select, design, deploy, integrate and manage network and communications infrastructure in an organization.
I_CETI5. Ability to select, to develop, integrate and manage information systems which satisfy organization necessities with identified costs and quality criteria.
I_CETI6. Ability to design systems, applications and services based on network technologies, including internet, website, e-commerce, multimedia, interactive services and mobile computing.

Full-or-part-time: 4h
Theory classes: 4h

(ENG) Servidors d'accés a les dades

Full-or-part-time: 4h
Practical classes: 4h
ACTIVITIES

| Description: |  |
| Specific objectives: |  |
| Material: |  |
| Delivery: |  |
| Full-or-part-time: 8h | Theory classes: 4h  Guided activities: 4h |

| Description: |  |
| Specific objectives: |  |
| Material: |  |
| Delivery: |  |
| Full-or-part-time: 4h | Theory classes: 4h |

| Routing |  |
| Description: |  |
| Specific objectives: |  |
| Material: |  |
| Delivery: |  |
| Full-or-part-time: 16h | Theory classes: 8h  Guided activities: 8h |
### Addressing

**Description:**

- 

**Specific objectives:**

- 

**Material:**

- 

**Delivery:**

- 

**Full-or-part-time:** 8h
  Theory classes: 4h
  Guided activities: 4h

### Description

**Specific objectives:**

- 

**Material:**

- 

**Delivery:**

- 

**Full-or-part-time:** 8h
  Theory classes: 4h
  Guided activities: 4h

### Description

**Specific objectives:**

- 

**Material:**

- 

**Delivery:**

- 

**Full-or-part-time:** 8h
  Theory classes: 4h
  Guided activities: 4h
### Network diagnostics

**Description:**  
-  
**Specific objectives:**  
-  
**Material:**  
-  
**Delivery:**  
-  
**Full-or-part-time:** 16h  
Theory classes: 12h  
Guided activities: 4h

### Cluster of disks in network

**Description:**  
-  
**Specific objectives:**  
-  
**Material:**  
-  
**Delivery:**  
-  
**Full-or-part-time:** 8h  
Theory classes: 4h  
Guided activities: 4h

### File service

**Description:**  
-  
**Specific objectives:**  
-  
**Material:**  
-  
**Delivery:**  
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**Full-or-part-time:** 8h  
Theory classes: 4h  
Guided activities: 4h
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### GRADING SYSTEM

### EXAMINATION RULES.
BIBLIOGRAPHY

Basic: