Course guide
270161 - SLDS - Free Software and Social Development

Last modified: 13/07/2023

Unit in charge: Barcelona School of Informatics
Teaching unit: 701 - DAC - Department of Computer Architecture.

Degree: BACHELOR'S DEGREE IN INFORMATICS ENGINEERING (Syllabus 2010). (Optional subject).

Academic year: 2023 **ECTS Credits:** 6.0 **Languages:** Spanish

LECTURER

Coordinating lecturer: CARLOS ALVAREZ MARTINEZ

Others: Primer quadrimestre:
CARLOS ALVAREZ MARTINEZ - 11, 12
DAVID LÓPEZ ÁLVAREZ - 11, 12

PRIOR SKILLS

The student should have basic programming and system administration skills.

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

Specific:
CEC4.1. To design, deploy, administrate and manage computer networks.
CT3.5. To identify the use possibilities and benefits which can be derived from an application in the different business software typologies and existent ICT services.
CT3.6. To demonstrate knowledge about the ethical dimension of the company: in general, the social and corporative responsibility and, concretely, the civil and professional responsibilities of the informatics engineer.
CT5.5. To use the tools of a software development environment to create and develop applications.
CTI1.1. To demonstrate understanding the environment of an organization and its needs in the field of the information and communication technologies.
CTI3.1. To conceive systems, applications and services based on network technologies, taking into account Internet, web, electronic commerce, multimedia, interactive services and ubiquitous computation.

Generical:
G2. SUSTAINABILITY AND SOCIAL COMPROMISE: to know and understand the complexity of the economic and social phenomena typical of the welfare society. To be capable of analyse and evaluate the social and environmental impact.
G4. EFFECTIVE ORAL AND WRITTEN communication: To communicate with other people knowledge, procedures, results and ideas orally and in a written way. To participate in discussions about topics related to the activity of a technical informatics engineer.

TEACHING METHODOLOGY

The students will perform al laboratories all those tasks to the practices that they are expected learn. The lectures will introduce the use of social software and its implications and intend to help them develop critical thinking towards decisions to be taken in their work.

In addition students must make a public presentation and develop a free software project idea.

LEARNING OBJECTIVES OF THE SUBJECT

1.Be able to explain the influence of free software in the society, economy and sustainability.
2.Be able to explain the essential facts of the history of software from a social and ethical point of view.
3.Be able to develop and collaborate in developing a free software project using the most common tools in the environment.
4.Understand and be able to use free software tools to handle common tasks in the environment of SMEs.
5.Be able to make a public presentation of an idea, project or study communicating your ideas and proposals in a clear, concise and effective way.

STUDY LOAD

Type	Hours	Percentage
Hours large group	30,0	20.00
Hours small group	30,0	20.00
Guided activities	6,0	4.00
Self study	84,0	56.00

Total learning time: 150 h

CONTENTS

Free Software and Linux.

Description:
Description of free software and its history explaining the most important facts and analyzing their causes.

Free Software and Society

Description:
Influence of free software in society from an ethical, social, economic and environmental point of view.

Basic administration of Linux operating system

Description:
Explanation of the most common tools for administration (users, systems and network) of the Linux operating system.

Development of free software.

Description:
Explanation of the most common tools and environments used to develop software.

Oral presentations.

Description:
Basic tools to make effective oral presentations.

ACTIVITIES

Free Software

Description:
Free Software

Specific objectives:
1, 2

Related competencies :
G2. SUSTAINABILITY AND SOCIAL COMPROMISE: to know and understand the complexity of the economic and social phenomena typical of the welfare society. To be capable of analyse and evaluate the social and environmental impact.
G4. EFFECTIVE ORAL AND WRITTEN communication: To communicate with other people knowledge, procedures, results and ideas orally and in a written way. To participate in discussions about topics related to the activity of a technical informatics engineer.

Full-or-part-time: 18h
Theory classes: 8h
Self study: 10h

Free Software and Society

Description:
Free Software and Society

Specific objectives:
1, 2

Related competencies :
G2. SUSTAINABILITY AND SOCIAL COMPROMISE: to know and understand the complexity of the economic and social phenomena typical of the welfare society. To be capable of analyse and evaluate the social and environmental impact.
G4. EFFECTIVE ORAL AND WRITTEN communication: To communicate with other people knowledge, procedures, results and ideas orally and in a written way. To participate in discussions about topics related to the activity of a technical informatics engineer.

Full-or-part-time: 16h
Theory classes: 8h
Self study: 8h

Basic administration of Linux operating system

Description:
Basic administration of Linux operating system

Specific objectives:
3, 4

Full-or-part-time: 31h
Laboratory classes: 13h
Self study: 18h

Development of free software

Description:
Development of free software

Specific objectives:
3, 4

Full-or-part-time: 41h
Laboratory classes: 15h
Guided activities: 4h 12m
Self study: 21h 48m

How to make public presentations

Description:
How to make public presentations

Specific objectives:
5

Related competencies :
G4. EFFECTIVE ORAL AND WRITTEN communication: To communicate with other people knowledge, procedures, results and ideas orally and in a written way. To participate in discussions about topics related to the activity of a technical informatics engineer.

Full-or-part-time: 2h
Theory classes: 2h

Students public presentations

Description:
Students public presentations

Specific objectives:
1, 2, 3, 4, 5

Related competencies :
G2. SUSTAINABILITY AND SOCIAL COMPROMISE: to know and understand the complexity of the economic and social phenomena typical of the welfare society. To be capable of analyse and evaluate the social and environmental impact.
G4. EFFECTIVE ORAL AND WRITTEN communication: To communicate with other people knowledge, procedures, results and ideas orally and in a written way. To participate in discussions about topics related to the activity of a technical informatics engineer.

Full-or-part-time: 30h
Theory classes: 10h
Self study: 20h

Theoretical Test

Description:
Theoretical Test

Specific objectives:
1, 2

Related competencies :
G2. SUSTAINABILITY AND SOCIAL COMPROMISE: to know and understand the complexity of the economic and social phenomena typical of the welfare society. To be capable of analyse and evaluate the social and environmental impact.
G4. EFFECTIVE ORAL AND WRITTEN communication: To communicate with other people knowledge, procedures, results and ideas orally and in a written way. To participate in discussions about topics related to the activity of a technical informatics engineer.

Full-or-part-time: 6h
Guided activities: 2h
Self study: 4h

Practical Test

Description:
Practical Test

Specific objectives:
3, 4

Full-or-part-time: 6h
Guided activities: 2h
Self study: 4h

GRADING SYSTEM

The course is evaluated through theoretical and practical tests, laboratory practices and the public presentation/software project by the following formula:

NF = 0,35 * Prac + 0,3 * (Pres + Proj) + 0,175 * TT + 0,175 * PT

The practical test takes place in the last lab class and the students would be able to use a computer.

BIBLIOGRAPHY

Basic:
- Stallman, R.M. Free software, free society. GNU Press, 2002. ISBN 1-882114-98-1.