Universitat de Lleida

DEGREE CURRICULUM
PROGRAMMING AND COMMUNICATIONS III

Coordination: GUITART BRAVO, FRANCESC JOSEP

Academic year 2016-17

Subject's general information

Subject name	PROGRAMMING AND COMMUNICATIONS III
Code	102135
Semester	2nd Q(SEMESTER) CONTINUED EVALUATION

Typology	Degree	Course	Typology	Modality
	Bachelor's Degree in Automation and Industrial Electronic Engineering	4	OPTIONAL	Attendance-based

ECTS credits	6
Groups	1GG
Theoretical credits	0
Practical credits	0
Coordination	GUITART BRAVO, FRANCESC JOSEP
Department	INFORMATICA I ENGINYERIA INDUSTRIAL
Important information on data processing	Consult this link for more information.
Language	English
Office and hour of attention	Teaching by CCIA professor in hiring process.

Teaching staff	E-mail addresses	Credits taught by teacher	Office and hour of attention
GUITART BRAVO, FRANCESC JOSEP	fguitart@diei.udl.cat	7,2	

Learning objectives

Programming applications on SBC platforms (such as the Raspberry Pi) to develop sensor using and network accessible applications.

Competences

Specific

Basic knowledge of the use and programming of computers, operating systems, databases and computer programs with applications in engineering.

Applied knowledge of industrial computing and communications.

Knowledge of the basics of the applications and computer systems.

General

To have the skills required to undertake new studies or improve the training with self-direction.

Capacity for unidisciplinary and multidisciplinary teamwork.

Strategic of the University

Command of a foreign language.

Mastering ICT's.

Subject contents

- Introduction to computer networks:
    - OSI / ISO layer models
    - TCP / IP model.
- Introduction to IP.
- Introduction to TCP.
- Introduction to HTTP.
- Web Application Development
- Python web servers

Methodology

Lectures.

Development (with Programació i Comunicacions II) of a complex project.

Development of small mini projects and small parts of the whole project.

Evaluation

Project-based learning (together with Programació i Comunicacions II). Those students not attending PiC2, will only develop a part of the project.

Bibliography

Documentation and examples in the virtual campus.

http://appinventor.mit.edu/explore/get-started

http://appinventor.mit.edu/explore/ai2/tutorials

Think Python - Allen B. Downey (http://www.greenteapress.com/thinkpython/)

Learn Python the Hard Way - Zed Shaw (http://learnpythonthehardway.org/)