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Course guide
205243 - VR - Professional Communication for Engineers Through Virtual Reality

Last modified: 22/04/2024

Unit in charge:	Terrassa School of Industrial, Aerospace and Audiovisual Engineering
Teaching unit:	756 - THATC - Department of History and Theory of Architecture and Communication Techniques.

Degree:	BACHELOR'S DEGREE IN AUDIOVISUAL SYSTEMS ENGINEERING (Syllabus 2009). (Optional subject).
BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (Syllabus 2009). (Optional subject).
BACHELOR'S DEGREE IN ELECTRICAL ENGINEERING (Syllabus 2009). (Optional subject).
BACHELOR'S DEGREE IN INDUSTRIAL ELECTRONICS AND AUTOMATIC CONTROL ENGINEERING (Syllabus 2009). (Optional subject).
BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (Syllabus 2009). (Optional subject).
BACHELOR'S DEGREE IN TEXTILE TECHNOLOGY AND DESIGN ENGINEERING (Syllabus 2009). (Optional subject).
BACHELOR'S DEGREE IN AEROSPACE TECHNOLOGY ENGINEERING (Syllabus 2010). (Optional subject).
BACHELOR'S DEGREE IN AEROSPACE VEHICLE ENGINEERING (Syllabus 2010). (Optional subject).
BACHELOR'S DEGREE IN INDUSTRIAL DESIGN AND PRODUCT DEVELOPMENT ENGINEERING (Syllabus 2010). (Optional subject).
BACHELOR'S DEGREE IN INDUSTRIAL TECHNOLOGY ENGINEERING (Syllabus 2010). (Optional subject).

Academic year: 2024   **ECTS Credits:** 3.0   **Languages:** English

LECTURER

Coordinating lecturer:	Moncada Comas, Balbina
Others:	

PRIOR SKILLS

In order to carry out academic and professional activities in English, students are recommended to have acquired B1 level of the Common European Framework of Reference for Languages (CEFR) or higher.

TEACHING METHODOLOGY

The course consists of: Participatory lectures; Participation in role plays and simulations; Autonomous learning by means of the resolution of tasks and problems; Autonomous learning of theoretical content; and Immersive learning (through Virtual Reality activities with goggles)

LEARNING OBJECTIVES OF THE SUBJECT

Familiarise students with spoken and written professional and technical communication and enable them to communicate effectively in English in authentic situations proper of their workplace settings. These objectives will be approached by immersing students in realistic professional scenarios in an imaginary company, where they will have to participate in different simulations.
Help students develop a range of professional communication skills in bi- and multilingual and multicultural environments, thus familiarising students with intercultural competence.
Acquaint students with persuasive communication to effectively outline and communicate an idea for a product, service or project.
Help students deal with job applications to prepare an effective CV, a cover letter and a job interview.
Familiarise students with product development processes to help them write an effective feasibility report and participate in meetings.
Help students develop and practise their oral presentations skills, and help them write emails and memos, and read regulation documents regarding safety or environmental issues.

STUDY LOAD

Type	Hours	Percentage
Hours large group	30,0	40.00
Self study	45,0	60.00

Total learning time: 75 h

CONTENTS

Module 1: Starting a new job in an engineering company

Description:
The scenario in this first module is as follows: You want to land your new dream job in an engineering company. You know it's tough to go through the selection process, but you're determined to work on presenting yourself as the best candidate

Specific objectives:
To become aware of important elements and potential pitfall in job applications and job interviews.
To practise vocabulary and phrases relevant for job interview.
To use grammatical and discourse structures relevant for job ads.

Related activities:
- Job adverts/ job offers
- Job applications – CV
- Job interviews
- Meetings (Panel Interview)

Full-or-part-time: 25h
Theory classes: 10h
Self study : 15h

Module 2: Launching a new product

Description:
The scenario for students is as follows: You now face your first challenge. You've been assigned the development of the company's new product. You're part of a team in charge of the design and development process of a product. You'll start by brainstorming and sketching your product before you present your prototype to the company's general management board in order to convince them to manufacture the product

Specific objectives:
To become acquainted with the stages involved in process of product development/innovation: brainstorming, conducting market research and comparing with competitors, assess feasibility.
To learn about product and process descriptions, specifications and feasibility reports.
To participate in team meetings and anticipate questions for the QA period
To perform a persuasive product/process presentation

Related activities:
- Writing the technical specifications of a product;
- Delivering a persuasive presentation in front of the management board

Full-or-part-time: 25h
Theory classes: 10h
Self study : 15h

Module 3: Complying with safety, quality and environmental standards

Description:
The scenario is the following: As an experienced engineer in the company, you now have to cope with different problems related to the safety and quality of the product, otherwise you think the company may stand chances of being sued.

Specific objectives:
To become acquainted with the stages involved in determining a safety or quality issue in a product: brainstorming, reading, speaking, listening and writing on the detected issues
To learn about risk assessment and safety issues
To reflect about potential risks and hazards , control measures and quality issues
To write a formal report using the appropriate structure and language

Related activities:
- Meetings & presentations
- Regulation documents

Full-or-part-time: 25h
Theory classes: 10h
Self study : 15h

GRADING SYSTEM

The final grade will mainly consist of continuous assessment. Assessment will be based on the following activities:
Class attendance & participation: 15%
Module 1 task(s): 20%
Module 2 task(s): 20%
Module 3 task(s): 20%
Final test: 25%
In order to pass the subject, it is a necessary condition to attend classes and present the assessed tasks. The student will not get an attendance and class participation grade if s/he does not attend at least 75% of the sessions. If one of the tasks is not carried out, the subject will be considered graded with a zero.

EXAMINATION RULES.

In case of partial or total copying in any of the evaluations of the subject, what is provided for in the academic regulations for undergraduate and master's studies of the UPC will apply: ''Irregular actions that can lead to a significant variation of the qualification of one or more students constitute a fraudulent performance of an evaluation act. This action entails the descriptive qualification of suspension and a numerical grade of 0 for the evaluation act and for the subject, without prejudice to the disciplinary process that may arise as a result of the acts carried out. If the student considers the decision to be incorrect, they can file a complaint with the director or the dean of the teaching center and, if the answer does not satisfy them, they can file an appeal with the rector. The total or partial reproduction of academic or research works, or their use for any other purpose, must have the explicit authorization of the authors. It is up to the director or the dean of the teaching center to resolve allegations about aspects not included in the regulations.''

BIBLIOGRAPHY

Basic:
- Downes, Colm; McGarr, Patricia. Cambridge English for job-hunting. Cambridge: Cambridge University Press, 2008. ISBN 9780521722155.
- Grussendorf, Marion. English for presentations. Oxford: Oxford University Press, 2007. ISBN 9780194579360.

RESOURCES

Other resources:

Course materials on Atenea from the I-BEE-VR Erasmus+ Project, 'An immersive Business and Engineering English through Virtual Reality"