220131 - Written Academic Skills for Engineering

Coordinating unit: 205 - ESEIAAT - Terrassa School of Industrial, Aerospace and Audiovisual Engineering
Teaching unit: 758 - EPC - Department of Project and Construction Engineering
Academic year: 2019

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

ECTS credits: 3

Teaching languages: English

Teaching staff
Coordinator: M Teresa Morera Escudé

Opening hours
Timetable: Upon request at teresa.morera@upc.edu

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 (CEF) or higher.

Degree competences to which the subject contributes

Transversal:
04 COE N3. EFFICIENT ORAL AND WRITTEN COMMUNICATION - Level 3. Communicating clearly and efficiently in oral and written presentations. Adapting to audiences and communication aims by using suitable strategies and means.
03 TLG. THIRD LANGUAGE. Learning a third language, preferably English, to a degree of oral and written fluency that fits in with the future needs of the graduates of each course.
Teaching methodology

The course is divided into parts:
- Classes
- Self-study for doing exercises and activities.

In the classes, lecturers will introduce the theoretical basis of the concepts, methods and results and illustrate them with examples appropriate to facilitate their understanding.

Later, lecturers will guide students in applying theoretical concepts to solve problems, always using critical reasoning. We propose that students solve exercises in and outside the classroom, to promote contact and use the basic tools needed to solve problems.

Students, independently, need to work on the materials provided by teachers and the outcomes of the sessions of exercises/problems, in order to fix and assimilate the concepts.

The lecturers provide the syllabus and monitoring of activities (ATENEA).

Learning objectives of the subject

Study load

<table>
<thead>
<tr>
<th>Total learning time: 75h</th>
<th>Hours large group:</th>
<th>30h</th>
<th>40.00%</th>
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<tbody>
<tr>
<td></td>
<td>Self study:</td>
<td>45h</td>
<td>60.00%</td>
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Content

**Written academic skills for engineering**

<table>
<thead>
<tr>
<th>Learning time: 75h</th>
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<tbody>
<tr>
<td>Theory classes: 30h</td>
</tr>
<tr>
<td>Self study: 45h</td>
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**Description:**

Module 1: The writing process (I) Pre-writing stage
Planning a text: overview of the communicative situation, the plan sheet
Analyzing audience & purpose
Considering style and tone

Module 2: The writing process (II) Writing stage
Drafting: common rhetorical functions in technical writing (description, definition, classification, instructions).
Paragraphs: Structuring and developing paragraphs, intra paragraph coherence
The essay: Structuring the essay (parts of an essay, thesis statements).
Developing essay patterns
Providing inter paragraph coherence
Incorporating visual aids

Module 3: The writing process (III) Post-writing stage
Revising content and organization
Checking for grammatical accuracy
Editing for style
Proofreading

Module 4: Academic and professional documents in English
Application letters and CVs
Technical Reports

Qualification system

Course assessment is based on course assignments, class participation and a final test.
Course assignments: 15%
Written project: 40%
Final test: 35%
Class participation: Students are expected to complete activities and tasks and bring their answers to class for discussion.
They are also expected to work in collaboration with others: 10%
All the assignments and tasks are compulsory
Bibliography

Basic:

Complementary: