240402 - Communicating Technical Information

Coordinating unit: 240 - ETSEIB - Barcelona School of Industrial Engineering
Teaching unit: 756 - THATC - Department of History and Theory of Architecture and Communication Techniques
Academic year: 2017
Degree: BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (Syllabus 2010). (Teaching unit Optional)
BACHELOR'S DEGREE IN MATERIALS ENGINEERING (Syllabus 2010). (Teaching unit Optional)
BACHELOR'S DEGREE IN INDUSTRIAL TECHNOLOGY ENGINEERING (Syllabus 2010). (Teaching unit Optional)
ECTS credits: 3
Teaching languages: English

Teaching staff
Coordinator: MARTA AGUILAR PEREZ

Prior skills
The students should have studied English before. The course is addressed to students with an Upper-intermediate level (B.2.2) or above.

Requirements
Students are recommended to possess a B.2.2 level, or higher, to follow successfully the course.

Degree competences to which the subject contributes

Transversal:
1. EFFICIENT ORAL AND WRITTEN COMMUNICATION. Communicating verbally and in writing about learning outcomes, thought-building and decision-making. Taking part in debates about issues related to the own field of specialization.
2. 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.
4. EFFICIENT ORAL AND WRITTEN COMMUNICATION. Communicating verbally and in writing about learning outcomes, thought-building and decision-making. Taking part in debates about issues related to the own field of specialization.
3. SELF-DIRECTED LEARNING. Detecting gaps in one's knowledge and overcoming them through critical self-appraisal. Choosing the best path for broadening one's knowledge.
6. TEAMWORK. Being able to work as a team player, either as a member or as a leader. Contributing to projects pragmatically and responsibly, by reaching commitments in accordance to the resources that are available.
5. 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 subject draws upon the following methodologies:
- Explanatory lectures which also allow for participation.
- Task performance (Individual work and pairwork) to put into practice the structures, vocabulary etc. explained, going from more to less guided tasks.
- Problem-solving learning whereby different communicative situations require diverse types of communication (different audience, different register).

Learning objectives of the subject
1- The student will be able to provide accurate and in-depth descriptions using the technical register in English.
2- The student will be able to communicate technical information in English by means of a wide array of linguistic resources (vocabulary, grammatical, lexical and syntactic structures) that enables students to effectively communicate in professional settings.
3- The student will be able to identify and evaluate different communicative situations, effectively responding to them: transmission of technical information to the general public and to peers, both in writing and verbally.

<table>
<thead>
<tr>
<th>Study load</th>
<th>Hours large group:</th>
<th>Hours medium group:</th>
<th>Hours small group:</th>
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<tbody>
<tr>
<td><strong>Total learning time: 75h</strong></td>
<td>0h</td>
<td>30h</td>
<td>0h</td>
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<tr>
<td>Hours medium group:</td>
<td>0.00%</td>
<td>40.00%</td>
<td>0.00%</td>
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<tr>
<td>Hours small group:</td>
<td>0.00%</td>
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<tr>
<td>Guided activities:</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.00%</td>
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<tr>
<td>Self study:</td>
<td>45h</td>
<td>60.00%</td>
<td>0.00%</td>
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## Content

### TÍTOL 1: Technical register

**Learning time:** 25h  
- Theory classes: 6h  
- Laboratory classes: 4h  
- Self study: 15h

**Description:**  
Effective communication in English: after reading texts and viewing oral presentations on technical topics in English, becoming acquainted with the technical register in English. Analyze its features and practice them by means of different activities and tasks.  
- impersonality  
- formal style and objective tone  
- compound nouns in technical English

### TÍTOL 2: Technical descriptions: physical descriptions

**Learning time:** 25h  
- Theory classes: 7h  
- Laboratory classes: 3h  
- Self study: 15h

**Description:**  
Physical descriptions (shape, size, measures, dimensions, composition, materials, classification).  
Effective communication in English: adapting to different situations when describing a product, tool or machine technically. Listen to fragments and clippings and read texts with technical descriptions. Analyze characteristics and gain practice by means of different tasks.

### TÍTOL 3: Technical descriptions: process description

**Learning time:** 25h  
- Theory classes: 6h  
- Laboratory classes: 4h  
- Self study: 15h

**Description:**  
Process description (simple processes simples and instructions; more complex processes, comparing alternatives, applications, etc. and cause-and-effect relationships).  
Effective communication in English: adapting to different situations when describing different kinds of usual processes in engineering. Listen to fragments and clippings and read texts with technical descriptions. Analyze characteristics and gain practice with different tasks. Deliver oral presentations to two main types of audience (‘popular science’ and experts).
### Planning of activities

<table>
<thead>
<tr>
<th><strong>WRITING TEXTS DESCRIBING A PRODUCT, TOOL, PROCESS, ETC.</strong></th>
<th><strong>Description:</strong></th>
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<tbody>
<tr>
<td></td>
<td>From a graph, picture, flowchart or table, write a description in the technical register.</td>
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<tr>
<th><strong>READ ING AND LISTENING COMPREHENSION OF TECHNICAL COMMUNICATION (PRODUCT AND PROCESS DESCRIPTION).</strong></th>
<th><strong>Description:</strong></th>
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<tbody>
<tr>
<td></td>
<td>Read technical texts and answer comprehension questions. Listen to fragments and answer comprehension questions. Classroom resources and digital resources (Atenea).</td>
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<tr>
<th><strong>ORAL PRESENTATION.</strong></th>
<th><strong>Description:</strong></th>
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<tr>
<td></td>
<td>From a graph, picture, flowchart or table orally deliver a technical description for different situations requiring different degrees of formality. Classroom resources and digital resources (Atenea). The oral presentation delivered in front of classmates will be assessed.</td>
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<tr>
<th><strong>Qualification system</strong></th>
<th><strong>Hours:</strong></th>
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<tr>
<td></td>
<td><strong>Self study:</strong></td>
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<tr>
<td>Oral presentation: 10 %</td>
<td>5h</td>
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<td>Final exam: 55%</td>
<td>6h</td>
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<td>3 Deliverables: 30% (10% each)</td>
<td>5h</td>
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<td>Classroom assignments: 5%</td>
<td>5h</td>
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Bibliography

Basic:


Complementary: