



POLITÉCNICA

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PR/CL/001



E.T.S. de Ing. de Caminos
Canales y P.

ANX-PR/CL/001-01

LEARNING GUIDE

SUBJECT

45000152 - Inglés Técnico

DEGREE PROGRAMME

04MI - Grado En Ingeniería De Materiales

ACADEMIC YEAR & SEMESTER

2025/26 - Semester 1

Index

Learning guide

1. Description.....	1
2. Faculty.....	1
3. Prior knowledge required to take the subject.....	2
4. Prior knowledge recommended to take the subject.....	2
5. Skills and learning outcomes	3
6. Brief description of the subject and syllabus.....	4
7. Schedule.....	7
8. Activities and assessment criteria.....	10
9. Teaching resources.....	12
10. Other information.....	13

1. Description

1.1. Subject details

Name of the subject	45000152 - Inglés Técnico
No of credits	6 ECTS
Type	Optional/elective
Academic year of the programme	Fourth year
Semester of tuition	Semester 7
Tuition period	September-January
Tuition languages	English
Degree programme	04MI - Grado en Ingeniería de Materiales
Centre	04 - E.T.S. De Ing. De Caminos Canales Y P.
Academic year	2025-26

2. Faculty

2.1. Faculty members with subject teaching role

Name and surname	Office/Room	Email	Tutoring hours *
Slavka Madarova (Subject coordinator)	476	s.madarova@upm.es	Sin horario. Tutoring schedule available at the start of the semester; appointments should be requested via email.

* The tutoring schedule is indicative and subject to possible changes. Please check tutoring times with the faculty member in charge.

3. Prior knowledge required to take the subject

3.1. Prerequisite (passed) subjects

-
-

- Nivelación B2 en Lengua Inglesa

3.2. Other required learning outcomes

The subject - other required learning outcomes, are not defined.

4. Prior knowledge recommended to take the subject

4.1. Recommended (passed) subjects

The subject - recommended (passed), are not defined.

4.2. Other recommended learning outcomes

- To enroll in this course, students must provide prior certification of B1 level in English according to the Common European Framework of Reference for Languages (CEFR) established by the Council of Europe, or an equivalent qualification.

- To pass the course, students must provide proof of B2 level at least five working days before the date of the ordinary exam session [convocatoria ordinaria] or resit exam session [convocatoria extraordinaria], as applicable.

5. Skills and learning outcomes *

5.1. Skills to be learned

CG 1 - Uso de la lengua inglesa

CG 3 - Comunicación oral y escrita

CG 4 - Uso de las Tecnologías de la Información y de las Comunicaciones

CG 9 - Capacidad de trabajo interdisciplinar

5.2. Learning outcomes

RA3 - Ser capaz de trabajar en equipo en entornos interdisciplinares.

RA5 - Saber aplicar las Tecnologías de la Información y de la Comunicación

RA114 - Presentaciones orales en lengua inglesa en entornos técnicos

RA1 - Comunicación oral y escrita en lengua inglesa en entornos científicos, técnicos y empresariales

RA2 - Destreza para la elaboración de resúmenes, informes técnicos, casos de estudio e instrucciones escritas en lengua inglesa

* The Learning Guides should reflect the Skills and Learning Outcomes in the same way as indicated in the Degree Verification Memory. For this reason, they have not been translated into English and appear in Spanish.

6. Brief description of the subject and syllabus

6.1. Brief description of the subject

This course, related to **EPAC (English for Academic and Professional Communication)**, is designed to equip Materials Engineering students with a comprehensive and practical command of English tailored to academic and professional contexts in their field. Unlike general English courses that treat the language as a basic tool, EPAC emphasizes the specialized and applied use of English in real-world engineering scenarios. Students will engage in the analysis, simulation, and communication of technical content, developing the linguistic and communicative competencies essential for success in both academic and workplace environments. The course integrates all four core language skills - **reading, writing, listening, and speaking** - with additional emphasis on **translation**, learning new expressions, and the expansion of **technical vocabulary** relevant to materials engineering. Authentic materials and case-based tasks reflect the language demands of the discipline, covering topics such as reinforced, pre-stressed, and pre-cast concrete, asphalt, tarmac, cement, grout, steel, timber, and new materials. Students will also work with mathematical formulae and infographics in English, enhancing their ability to interpret and communicate technical data effectively. Throughout the semester, students will explore nine main themes, integrating all six skill areas (reading, writing, listening, speaking, translation, and technical terminology) in a practical and contextualized manner:

- 1. Introduction - The engineering profession and surveying*
- 2. Infographics & Math Language - Shapes, expressions, and pronunciation*
- 3. Technical Writing - Essays, abstracts, and formal register*
- 4. Oral Presentations - Public speaking and delivery techniques*
- 5. Civil Structures I - Concrete and foundations*
- 6. Civil Structures II - Dams and bridges; report writing*
- 7. Civil Structures III - Highways and tunnels; construction materials*
- 8. Professional Communication - CVs, cover letters, and job interviews*
- 9. Workplace Writing - Emails and memorandums*

By the end of the course, students will be able to navigate academic and professional environments in English with confidence, precision, and fluency, enhancing their competitiveness in the global materials engineering landscape.

6.2. Syllabus

1. Reading skills in academic and professional English for materials engineering
 - 1.1. Locating main and subsidiary information in complex sentences, paragraphs and texts. Reading techniques: scanning and skimming. Identifying coherence and cohesion in materials engineering texts.
 - 1.2. Analyzing Internet websites: critical evaluation.
 - 1.3. Predicting meaning from context in materials engineering texts. Identifying word classes in context (words belonging to one, two or more classes).
 - 1.4. Interpreting charts, graphs, diagrams and tables. Describing different trends in graphic information.
2. Writing skills in academic and professional English for materials engineering
 - 2.1. Summarizing information from a materials engineering text.
 - 2.2. Practising useful sequence signalling markers and connectors in a process description. Analyzing the cause-effect relationship in materials engineering texts.
 - 2.3. Basic principles of essay writing. Revising different types of essays: descriptive, argument, analytical, evaluative, personal experience, reflective.
 - 2.4. Developing written accuracy: punctuation, spelling, cohesive and coherent devices, precise selection of terms.
 - 2.5. Creating awareness of different written registers and selecting the formal register in technical writing.
 - 2.6. The report layout: abstract, introduction, method, materials results and discussion, conclusion and bibliographical references. Writing a materials engineering (laboratory) report.
 - 2.7. The layout of letters in academic and professional contexts: addresses, salutation, main body ending and closing stages. Professional writing (résumés and cover letters).
 - 2.8. Referencing bibliographical sources in materials engineering.
3. Listening skills in academic and professional English for materials engineering
 - 3.1. Listening to lectures.
 - 3.2. Predicting lecture content from the introduction.
 - 3.3. Identifying main and subsidiary ideas. Digressions.
 - 3.4. Note taking using abbreviations and symbols.
 - 3.5. Organizing notes.

4. Speaking skills in academic and professional English for materials engineering

- 4.1. Pronunciation: learning the phonemic symbols (phonetic transcription practice). Practicing pronunciation of technical terms and expressions.
- 4.2. Oral presentations: Using the correct intonation, voice modulation, eye contact and body language. Audience awareness.
- 4.3. Developing communicative strategies focused on the purpose, organizational aspects and linguistic features.
- 4.4. Presenting information orally from texts and graphs.
- 4.5. Preparing a job interview.

5. Translation skills in academic and professional English for materials engineering

- 5.1. Clarity and accuracy in materials engineering translation. Interpreting and translating civil engineering texts from English into Spanish and from Spanish into English.
- 5.2. Avoiding the use of Spanglish.

6. English terminology in academic and professional English for material engineering

- 6.1. Linguistic competence (grammar and specific vocabulary).

7. Schedule

7.1. Subject schedule*

Week	Type 1 activities	Type 2 activities	Distant / On-line	Assessment activities
1	Tema 1. Introduction - The Engineering Profession. Surveying. Practical Activities. Duration: 04:30 Cooperative activities			
2	Tema 2. Infographics. Geometric shapes. Mathematical expressions. Pronunciation of common terms and expressions in Material Engineering. Duration: 04:30 Cooperative activities			
3	Tema 3. Writing Material Engineering essays. Writing abstracts. Register use in formal contexts. Practical Tasks. Academic writing feedback. Duration: 04:30 Cooperative activities			
4	Tema 3. (cont.) Writing Material Engineering essays. Writing abstracts. Register use in formal contexts. Practical Tasks. Academic writing feedback. Duration: 04:30 Additional activities			Write an abstract/essay Individual presentation Progressive assessment Presential Duration: 02:00
5	Tema 4. Oral presentations: Preparation and delivery. Public speaking in Material Engineering. Preparation; Timing; Body language; Slides; Content; Fluency; Grammar; Confidence; Eye Contact. Practice and Feedback. Duration: 04:30 Cooperative activities			
6	Tema 4. (cont.) Oral presentations: Preparation and delivery. Public speaking in Material Engineering. Preparation; Timing; Body language; Slides; Content; Fluency; Grammar; Confidence; Eye Contact. Practice and Feedback. Duration: 04:30 Cooperative activities			
7	Tema 5. Building Civil structures 1: Concrete and Foundations. Use of reinforced, pre-stressed and pre-cast concrete. Practical Activities. Video Comprehension. Fill in the gaps, True/False; Multiple Choice, Prepositions Practice, etc. Duration: 04:30 Cooperative activities			Oral presentations Group presentation Progressive assessment Presential Duration: 02:00

8	<p>Tema 5. (cont.) Building Civil structures 1: Concrete and Foundations. Use of reinforced, pre-stressed and pre-cast concrete. Practical Activities. Video Comprehension. Fill in the gaps, True/False; Multiple Choice, Prepositions Practice, etc.</p> <p>Duration: 04:30 Cooperative activities</p>			
9	<p>Tema 6. Building Civil structures 2: Dams and Bridges. Use of Concrete, Steel, Timber and other Construction Materials. Practical Activities. Video Comprehension. Reports. Types and Written Practice. Researching online material.</p> <p>Duration: 04:30 Cooperative activities</p>			
10	<p>Tema 6. (cont.) Building Civil structures 2: Dams and Bridges. Practical Activities. Video Comprehension. Fill in the gaps, True/False; Multiple Choice, Prepositions Practice, etc. Reports. Types and Written Practice. Researching online material.</p> <p>Duration: 04:30 Additional activities</p>			<p>Write an Engineering report Individual presentation Progressive assessment Presential Duration: 02:00</p>
11	<p>Tema 7. Building Civil structures 3: Highways and Tunnels. Recycling of Construction Materials. Sustainable Materials. Practical Activities. Video Comprehension. Fill in the gaps, True/False; Multiple Choice, Prepositions Practice, etc.</p> <p>Duration: 04:30 Cooperative activities</p>			
12	<p>Tema 7. (cont.) Building Civil structures 3: Highways and Tunnels. Recycling and Sustainable Materials. Practical Activities. Video Comprehension. Fill in the gaps, True/False; Multiple Choice, Prepositions Practice, etc.</p> <p>Duration: 04:30 Additional activities</p>			<p>Civil Engineering Vocabulary Test Individual presentation Progressive assessment Presential Duration: 02:00</p>
13	<p>Tema 8. Preparing Cover letters, CVs, Job interviews. Professional World. Main features of the job market in Material Engineering. Writing CVs and Cover Letters: Structure, Content, Grammar, Vocabulary, Wording and Register.</p> <p>Duration: 04:30 Cooperative activities</p>			
14	<p>Tema 8. (cont.) Preparing Cover letters, CVs, Job interviews. Professional World. Main features of the job market in Material Engineering. Writing CVs and Cover Letters: Structure, Content, Grammar, Vocabulary, Wording and Register.</p> <p>Duration: 04:30 Additional activities</p>			<p>Write a cover letter Individual work Progressive assessment Presential Duration: 02:00</p>

15	Tema 9. Emails and memorandums. Practical Activities. Duration: 04:30 Cooperative activities			
16				
17				Global Evaluation Test (January exam call) Written test Global examination Presential Duration: 03:00

Depending on the programme study plan, total values will be calculated according to the ECTS credit unit as 26/27 hours of student face-to-face contact and independent study time.

8. Activities and assessment criteria

8.1. Assessment activities

8.1.1. Assessment

Week	Description	Modality	Type	Duration	Weight	Minimum grade	Evaluated skills
4	Write an abstract/essay	Individual presentation	Face-to-face	02:00	20%	5 / 10	CG 1 CG 3
7	Oral presentations	Group presentation	Face-to-face	02:00	20%	5 / 10	CG 1 CG 3 CG 4
10	Write an Engineering report	Individual presentation	Face-to-face	02:00	20%	5 / 10	CG 1 CG 3
12	Civil Engineering Vocabulary Test	Individual presentation	Face-to-face	02:00	20%	5 / 10	CG 1 CG 3 CG 4 CG 9
14	Write a cover letter	Individual work	Face-to-face	02:00	20%	5 / 10	CG 1 CG 3 CG 9

8.1.2. Global examination

Week	Description	Modality	Type	Duration	Weight	Minimum grade	Evaluated skills
17	Global Evaluation Test (January exam call)	Written test	Face-to-face	03:00	100%	5 / 10	CG 1 CG 3 CG 4 CG 9

8.1.3. Referred (re-sit) examination

Description	Modality	Type	Duration	Weight	Minimum grade	Evaluated skills
Global Evaluation Test (June exam call)	Written test	Face-to-face	03:00	100%	5 / 10	CG 4 CG 1 CG 3 CG 9

8.2. Assessment criteria

To enroll in this course, students must provide prior certification of B1 level in English according to the Common European Framework of Reference for Languages (CEFR) established by the Council of Europe, or an equivalent qualification.

To pass the course, students must provide proof of B2 level at least five working days before the date of the ordinary exam session [convocatoria ordinaria] or resit exam session [convocatoria extraordinaria], as applicable. Failure to do so will result in a maximum grade of 4.0 in the ordinary exam session and a grade of Absent [No Presentado] in the resit exam session.

By default, the evaluation system is progressive, based on the assessments specified in the corresponding section.

To pass the course, students must:

- Complete all five mandatory partial assessments
- Obtain a minimum grade of 5 in each
- Attend at least 70 - 80% of the total class hours

If any of these requirements are not met, the student must take the global evaluation test [Prueba de Evaluación Global].

Students who fail any part of the course content must also take the global evaluation test in its entirety.

Students may opt for a global evaluation [evaluación global] by submitting a written request (form/email) to the Course Coordinator within two weeks from the start of the course. In this case, the global evaluation test will account for 100% of the final grade.

The resit exam session [convocatoria extraordinaria] will follow the same criteria as the global evaluation.

The global evaluation test includes both a written and an oral component.

Exam content includes:

- Reading comprehension of technical texts in Civil Engineering

- Grammatical and discourse features of the English language
- Vocabulary from the course units
- Listening comprehension
- Writing a technical text related to Civil Engineering

9. Teaching resources

9.1. Teaching resources for the subject

Name	Type	Notes
Textbooks, CDs, Dictionaries	Bibliography	The library includes textbooks, exercise books, and task-based materials, as well as a range of technical and general English dictionaries, both monolingual and bilingual (English - Spanish and Spanish - English).

Specialised videos	Web resource	Videos focused on topics related to Materials Engineering.
Multimedia Classroom	Equipment	A space where students carry out searches on specialised websites and complete activities, working individually or in groups.

10. Other information

10.1. Other information about the subject

- This course aligns with several United Nations Sustainable Development Goals (SDGs), particularly:

SDG 4: Quality Education - by promoting the learning of foreign languages for academic and professional purposes.

SDG 9: Industry, Innovation, and Infrastructure - by focusing on technical language related to sustainable infrastructure and innovative technologies.

SDG 8: Decent Work and Economic Growth - by preparing students to access global job opportunities through enhanced linguistic and communicative skills.

- This course is grounded in environmentally conscious content related to Materials Engineering.
- The original Spanish version of the following paragraph is included to avoid any misinterpretation of official institutional regulations. It refers to the official language and wording of the University's evaluation policy, which students are required to follow:

Para poder superar la asignatura, el o la estudiante deberá acreditar el nivel B2 con una antelación de, al menos, cinco días hábiles previos al examen de la convocatoria ordinaria o extraordinaria, según corresponda. En caso de no hacerlo, el estudiante podrá alcanzar una calificación máxima de 4.0 en la convocatoria ordinaria, y será calificado como No Presentado en la convocatoria extraordinaria (Normativa de evaluación del aprendizaje en las

titulaciones oficiales de Grado y Máster universitario de la Universidad Politécnica de Madrid, aprobada en Consejo de Gobierno de 26 de mayo de 2022).