



POLITÉCNICA

INTERNATIONAL
CAMPUS OF
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COORDINATION PROCESS OF
LEARNING ACTIVITIES
PR/CL/001



E.T.S. de Ingenieros
Informáticos

ANX-PR/CL/001-01

LEARNING GUIDE

SUBJECT

105000134 - English For Professional And Academic Communication

DEGREE PROGRAMME

10ML - Grado en Matematicas e Informática

ACADEMIC YEAR & SEMESTER

2020/21 - Semester 2

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Learning guide

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1. Description

1.1. Subject details

| | |
|---------------------------------------|---|
| Name of the subject | 105000134 - English For Professional And Academic Communication |
| No of credits | 6 ECTS |
| Type | Compulsory |
| Academic year of the programme | Fourth year |
| Semester of tuition | Semester 7 Semester 8 |
| Tuition period | February-June |
| Tuition languages | English |
| Degree programme | 10ML - Grado en Matematicas e Informática |
| Centre | 10 - Escuela Tecnica Superior de Ingenieros Informaticos |
| Academic year | 2020-21 |

2. Faculty

2.1. Faculty members with subject teaching role

| Name and surname | Office/Room | Email | Tutoring hours * |
|--|--------------------|-----------------------|---|
| Jelena Bobkina | 6003 | jelena.bobkina@upm.es | Tu - 17:00 - 18:00 Th - 10:00 - 15:00 Appointments to be booked by email in advance. Thank you. |
| Elena Montiel Ponsoda (Subject coordinator) | 6003 | elena.montiel@upm.es | Tu - 12:00 - 15:00 Th - 12:00 - 15:00 Appointments to be booked by email in advance. Thank |

| | | | |
|--|--|--|------|
| | | | you. |
|--|--|--|------|

* 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

-
-
-

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

- B2 certification is required (SAI), according to the terms established by the Universidad Politécnica de Madrid
- From all language certificates acknowledging B2 level, we strongly recommend against APTIS.

5. Skills and learning outcomes *

5.1. Skills to be learned

CE43 - Capacidad para trabajar de forma efectiva como individuo, organizando y planificando su propio trabajo, de forma independiente o como miembro de un equipo.

CG05 - Capacidad de abstracción, análisis y síntesis.

CG06 - Capacidad para trabajar dentro de un equipo, organizando, planificando, tomando decisiones, negociando y resolviendo conflictos, relacionándose, y criticando y haciendo autocrítica.

CG08 - Capacidad de comunicarse de forma efectiva con los compañeros, usuarios (potenciales) y el público en general acerca de cuestiones reales y problemas relacionados con la especialización elegida.

CG12 - Capacidad para trabajar en un contexto internacional, comunicándose en lengua inglesa y adaptándose a un nuevo entorno.

5.2. Learning outcomes

RA100 - Comunicarse de forma eficaz tanto formal como informalmente bien en grupo o de forma individual, mediante el uso de las TIC.

RA99 - Recopilar y sintetizar coherentemente información de fuentes bibliográficas.

RA101 - Exponer temas profesionales de modo claro, preciso y coherente, teniendo en cuenta el tipo de audiencia

RA98 - Redactar distintos tipos de textos según las convenciones propias de cada tipo textual.

* 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

The main objective of this course is to make students aware of the importance of effective communication skills in academic or professional settings, with a strong focus on contemporary issues related to computer engineering, and to help them develop those skills to communicate effectively in both settings.

The course will be organized around science and technology related topics, and 2 assignments (written Research Proposal -RP- and Oral Presentation -OP) that they will have to complete to pass the course.

It is expected that students are able to:

1. identify and describe major economic, environmental and health problems for which a computer engineering solution could have a major impact on society;
2. identify different types of texts in their area of knowledge, as well as the register and tone typically used in scientific and technical texts;
3. read and summarise relevant materials about contemporary issues for which computer engineering may play a role, be it orally or in writing;
4. write coherent and cohesive texts that have a clear focus on contemporary issues, structuring, paragraphing, punctuation, etc., and that are correct from a grammatical and spelling viewpoint;
5. use correctly references and citations from relevant materials about contemporary issues for which computer engineering may play a role;
6. deliver a written report about an original research idea (RP) that addresses contemporary issues relevant for computer engineering;
7. develop listening comprehension skills in their area of knowledge;
8. use and explain figures and diagrams in a proper manner (OP);
9. deliver a technical and scientific presentation about an original research idea that addresses contemporary

issues relevant for computer engineering (OP)

As for the teaching methodology, we will follow a student-centered approach to learning in which the lecturer's role is to motivate students and facilitate their learning and overall comprehension of concepts and tasks. Student learning is assessed through both formal and informal forms of evaluation, including group projects, student and class participation. Teaching and assessment are connected, and student learning is continuously measured during teacher instruction.

Regarding teaching strategies, direct instruction will be combined with inquiry-based learning and event cooperative learning at some stages. Inquiry-based learning will be the predominant teaching method. This method focuses on student investigation and hand-on learning. Students will "learn by doing" as much as possible, both in the case of writing assignments as well as when delivering oral presentations. Students will also learn from constructive feedback on their work and on the work of others, and will also get feedback from their peers.

6.2. Syllabus

1. What is Professional and Academic Communication? - Introduction to the course
 - 1.1. 21st Century Skills in the context of EPAC
 - 1.2. Description of assignments: Research Proposals and Oral Presentations
2. Part 1 - Formulating a research idea
 - 2.1. Pentachart (I) - Background and Motivation
 - 2.2. Pentachart (II) - Innovation and Description
 - 2.3. Pentachart (III) - Impact and Path Forward
3. Part 2 - Presenting a research idea
 - 3.1. Effective Oral Presentations (I): Introduction
 - 3.2. Effective Oral Presentations (II): Organization and Structure
 - 3.3. Effective Oral Presentations (III): Format and Style
4. Part 3 - Developing a research idea
 - 4.1. Research Proposal (I) - Introduction
 - 4.2. Research Proposal (II): Organization and Structure
 - 4.3. Research Proposal (III): Format and Style
5. Student's Oral Presentations
6. Student's Research Proposals

7. Schedule

7.1. Subject schedule*

| Week | Face-to-face classroom activities | Face-to-face laboratory activities | Distant / On-line | Assessment activities |
|------|--|------------------------------------|---|--|
| 1 | Introduction to the course (I) Duration: 02:00 | | Introduction to the course (II) Duration: 02:00 | |
| 2 | Pentachart (I) - Background and Motivation Duration: 02:00 | | Pentachart (I) - Background and Motivation. Listening comprehension Duration: 02:00 | |
| 3 | Pentachart (II) - Innovation and Description Duration: 02:00 | | Pentachart (II) - Innovation and Description. Reading comprehension Duration: 02:00 | |
| 4 | Pentachart (III) - Impact and Path Forward Duration: 02:00 | | Pentachart (III) - Impact and Path Forward. Listening comprehension Duration: 02:00 | |
| 5 | Effective Oral Presentation (I): Introduction Duration: 02:00 | | Effective Oral Presentation (I): Introduction. Reading comprehension Duration: 02:00 | |
| 6 | Effective Oral Presentations (II) - Organization and Structure Duration: 02:00 | | Effective Oral Presentations (II) - Organization and Structure. Listening comprehension Duration: 02:00 | |
| 7 | Effective Oral Presentations (III) - Format and Style Duration: 02:00 | | Effective Oral Presentations (III) - Format and Style. Reading comprehension Duration: 02:00 | |
| 8 | Research Proposal (I) - Introduction Duration: 02:00 | | Research Proposal (I) - Introduction. Listening comprehension Duration: 02:00 | |
| 9 | Research Proposal (II) - Organization and Structure Duration: 02:00 | | Research Proposal (II) - Organization and Structure. Reading comprehension Duration: 02:00 | |
| 10 | Research Proposal (III) - Format and Style Duration: 02:00 | | Research Proposal (III) - Format and Style. Listening comprehension Duration: 02:00 | |
| 11 | Student's Oral Presentations Duration: 02:00 | | Student's Oral Presentations Duration: 02:00 | Continuous assessment: Oral presentations (15 hours for preparation and 10 minutes for delivery in 3-member groups, and 7 minutes for delivery in 2-member groups) Continuous assessment Presential |

| | | | | |
|----|---|--|--|--|
| | | | | Duration: 15:00 |
| 12 | Student's Oral Presentations Duration: 02:00 | | Student's Oral Presentations Duration: 02:00 | |
| 13 | Student's Research Proposals Duration: 02:00 | | Student's Research Proposals Duration: 02:00 | |
| 14 | Continuous assessment: Final written exam Duration: 02:00 | | Student's Research Proposals Duration: 02:00 | Continuous assessment: Final written exam Continuous assessment Presential Duration: 02:00 Continuous assessment: Written research proposal (25 hours for preparation and group work) Continuous assessment Not Presential Duration: 25:00 |
| 15 | | | | |
| 16 | | | | |
| 17 | | | | Final assessment: Written exam Final examination Presential Duration: 02:00 Final assessment: Written research proposal (25 hours for preparation and group work) Final examination Not Presential Duration: 25:00 Final assessment: Oral presentation (15 hours for preparation and 7 minutes for delivery in 2-member groups) Final examination Presential Duration: 15:00 |

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.

* The schedule is based on an a priori planning of the subject; it might be modified during the academic year, especially considering the COVID19 evolution.

8. Activities and assessment criteria

8.1. Assessment activities

8.1.1. Continuous assessment

| Week | Description | Modality | Type | Duration | Weight | Minimum grade | Evaluated skills |
|------|--|----------|---------------|----------|--------|---------------|------------------------------|
| 11 | Continuous assessment: Oral presentations (15 hours for preparation and 10 minutes for delivery in 3-member groups, and 7 minutes for delivery in 2-member groups) | | Face-to-face | 15:00 | 35% | 5 / 10 | CG06 CG12 CG08 |
| 14 | Continuous assessment: Final written exam | | Face-to-face | 02:00 | 40% | 5 / 10 | CG05 CG08 |
| 14 | Continuous assessment: Written research proposal (25 hours for preparation and group work) | | No Presential | 25:00 | 25% | 5 / 10 | CE43 CG08 CG05 CG06 |

8.1.2. Final examination

| Week | Description | Modality | Type | Duration | Weight | Minimum grade | Evaluated skills |
|------|--|----------|---------------|----------|--------|---------------|------------------------------|
| 17 | Final assessment: Written exam | | Face-to-face | 02:00 | 50% | 5 / 10 | CG08 CG05 |
| 17 | Final assessment: Written research proposal (25 hours for preparation and group work) | | No Presential | 25:00 | 20% | 5 / 10 | CE43 CG08 CG05 CG06 |
| 17 | Final assessment: Oral presentation (15 hours for preparation and 7 minutes for delivery in 2-member groups) | | Face-to-face | 15:00 | 30% | 5 / 10 | CG12 CG08 CG06 |

8.1.3. Referred (re-sit) examination

No se ha definido la evaluación extraordinaria.

8.2. Assessment criteria

A) In the **continuous assessment option**, students will be evaluated as follows:

1. Research Proposal in groups of 2 to 3 students (25%) - 1500 words (excluding references)
2. Oral Presentation in groups of 2 to 3 students (23%) - **same topic as the one chosen for the research proposal**. Overall duration: 7 min. for 2-member groups and 10 min for 3-member groups.
3. Written Exam (40%)

To be entitled to the continuous assessment option, students have to attend the f2f sessions of the course, actively participate in the activities and discussions proposed in those sessions, and/or submit the required tasks via Moodle.

IMPORTANT NOTE: Students will have to notify their choice of assessment type and members of their working group by the end of Week 2.

B) The **final assessment option** will consist of:

1. Written Exam (50%)
2. Research Proposal in groups of 2 (20%) - 1500 words (excluding references)
3. Oral Presentation in groups of 2 (30%) - **same topic as the one chosen for the research proposal**. Duration: 7 min. Time & place: on site, on the final exam date, right after the exam

IMPORTANT NOTE: It is a necessary precondition to submit the research proposal and the Power Point of the presentation 7 days before the official exam date to be able to take the final exam. The submission will be done via Moodle in a "Moodle task" created for that purpose and announced in due time. Should you want any feedback prior to the submission of the assignments, a specific Moodle task will be available in Week 12 (exclusively). Feedback will be provided no later than Week 15.

Students will have to notify their choice of assessment type and members of their working group by the end of Week 2.

For both options, A) and B), the final score will be the result of averaging out the sum of the marks obtained in the compulsory assignments specified above (namely, research proposal, oral presentation, and exam), only if they are above the minimum score specified in the assessment table.

If a student fails only the exam and passes the assignments (research proposal and oral presentation), he or she will only have to take the exam in the extraordinary call. The marks of the assignments will be kept only during that academic year.

If a student fails one or both of the two assignments, but passes the exam, both assignments will need to be re-submitted (but the exam will not need to be retaken). The mark of the exam will be kept only during that academic year.

In the **research proposal assignment**, students will be asked to identify a research gap or problem, and analyze it from a research perspective accounting for the following sections:

- a) Motivation and Background (state-of-the-art) for the research - about 500 words
- b) Proposed Innovation - about 200 words
- c) Description of the Idea/Project - about 500 words
- d) Potential Impact and Limitations of the Research - about 200 words
- e) Outline Programme of the Work (path forward) and future lines - about 100 words
- f) List of References - minimum 5 academic references.

The extension of the proposal will be of aprox. 1500 words. A standard font should be used, preferably 12-point Times New Roman or Arial, with 1,5 line spacing.

The **oral presentation** will be evaluated according to the following criteria (amongst others): appropriateness to the audience; use of attention-getting devices; structure and cohesion; sufficient variation in tone and enthusiasm; fluent pattern of speech; appropriate use of time connectors and signposts; use of specialized vocabulary and

definitions of key terms unfamiliar to the audience; correct use of grammar and complex expressions; appropriate pace; eye contact and adequate use of body language; effective use of visual aids; accurate timing, interaction with the audience; correct pronunciation and intonation.

A **Power Point presentation** will be required to support the oral presentation, and will need to be submitted alongside the research proposal (a specific task in Moodle will be created to this effect and timely notified to students).

Scoring rubrics for oral presentations collecting these and other important assessment criteria to be taken into account in the evaluation process will be made available to the students.

2-member group presentations (continuous assessment) should take 7 min. in total; 3-member group presentations (continuous assessment) should take 10 min. in total; and 2-member group presentations (final exam option) should take 7 min. in total.

Note that students holding a B1 certificate must present in "Secretaria" a B2 certificate no later than 5 working days before the exam.

9. Teaching resources

9.1. Teaching resources for the subject

| Name | Type | Notes |
|---|--------------|---|
| See Moodle of the course | Web resource | UPDATED INFORMATION AND RESOURCES IN THE MOODLE PLATFORM OF THE COURSE. |
| 21st Century Reading. Creative Thinking and Reading with TEDTalks. | Bibliography | National Geographic Learning / CENGAGE Learnig |
| 21st Century Communication. Listening, Speaking, and Critical Thinking. | Bibliography | National Geographic Learning / CENGAGE Learnig |

10. Other information

10.1. Other information about the subject

This course strongly contributes to 2030 Agenda for Sustainable Development Goals (SDG) in the following ways:

- Goal number 4. **Quality education**, in the sense of encouraging students lifelong learning using foreign languages;
- Goal number 5. **Gender equality**, by promoting class debates around prominent female researchers, scientists and engineers;
- Goal number 9. **Industry, innovation and infrastructure**, by encouraging students to research on technological advances that may have an impact on society .
- Goal number 6. Clean water and sanitation; Goal number 7. Affordable and clean energy; Goal number 8. Decent work and economic growth; Goal number 11. Sustainable cities and communities; Goal number 12. Responsible consumption and production; Goal number 13. Climate action; by encouraging students to read texts, watch videos and discuss on topics related to the mentioned goals and to think on how Computer engineering may contribute to these objectives.