



Scientific research skills (F. Ciencias)

Guía docente 2024-25

INTRODUCTION

This subject comprises two modules: a practical module on presentation skills and a theoretical module based on selected scientific topics.

The **presentation skills** module aims to provide students with the language and presentation skills required to deliver their final year project in English to an academic jury.

The theoretical module is based on series of seminars in English on a wide range of scientific subjects. The '**Frontiers in Science**' seminar program is designed to provide the students with an opportunity to engage with and participate in current topics in science today.

- **Titulación:**
- **Módulo/Materia:**
- **ECTS:** 3
- **Curso, semestre:** 3º, 4º, primer y segundo semestre
- **Carácter:** Optativa
- **Idioma:** Inglés (Requirement: B2 level of General English; e.g. Cambridge First Certificate).

Módulo A: Frontiers in Science

- Profesor responsable:

Angel Garcimartín Montero (Dpto. de Física y Mat. Apl.). e-mail: angel@unav.es

- Este módulo corresponde a un 30% de los ECTS de la asignatura.
Hay 20 horas de clases presenciales. Se cursa en 3º.
- Lugar: Aula 35, edif. Biblioteca de Ciencias
- Horario:

- 1er semestre, los miércoles de 13:00 a 14:00, del 18 de septiembre al 13 de noviembre

- 2º semestre, los viernes de 13:00 a 14:00, del 17 de enero al 21 de marzo

Módulo B: Presentation Skills

- Profesora responsable:

María Teresa López Vázquez (Instituto de Idiomas). e-mail: mtlopez@unav.es

- Este módulo corresponde a un 30% de los ECTS de la asignatura.
Hay 20 horas de clases presenciales. Se cursa en 4º
- Horario: Los jueves de 17:00 a 19:00, del 9 de enero al 13 marzo 2025.
- Lugar: Aula 12, Edificio Biblioteca de Ciencias.

COMPETENCIAS

Knowledge



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- To understand a scientific presentation.
- To learn scientific strategies.
- To acquire a basic knowledge of different scientific disciplines.
- To understand the difference between written and spoken discourse.
- To understand and use functional notions of language in spoken discourse.
- To understand, identify and use phonological features of spoken language.
- To understand basic slide design principles.
- To learn and use phrases used in transitions and referencing during a presentation.

Skills

- To be able to get the most important messages after attending a seminar.
- To acquire the skills to ask questions in a public audience.
- To select, plan and organise material for an oral presentation.
- To implement slide design principles when creating a slide presentation.
- To match spoken commentary to projected slides.
- To acquire voice control during public speaking.
- To control body language in the delivery of a presentation.
- To implement techniques to create audience rapport.
- To manage time effectively during a presentation.
- To be able to answer and respond to questions effectively.

Learning Outcomes

- To be able to follow a mid-level scientific presentation and ask appropriate questions.
- To be able to successfully plan, prepare and deliver a scientific academic presentation based on a final year undergraduate research project.

PROGRAMME

Frontiers in Science Seminars (3rd year degree students)

For the year 2024/25, the seminars will be

- 1st semester: **Wednesdays**, at **Aula 12** (Edificio Biblioteca de Ciencias), **from 13:00 to 14:00**.
- 2nd semester: **Fridays** at **Aula 12** (Edificio Biblioteca de Ciencias) **from 13:00 to 14:00**.

Dates and confirmed speakers are listed below. The programme may be updated or changed.

18-sep	Sesión introductoria	Angel Garcimartín
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de Navarra

13-nov		

17-ene		
21-mar		

Presentation Skills (4th year degree students)



- **1. Presentation Planning**
 - 1.1 Selecting materials: differentiating between written and spoken discourse
 - 1.2 Organising material
 - 1.3 Balancing speaker notes with visuals
- **2. Presentation Design**
 - 2.1 PResentation principles; assertion-evidence model
 - 2.2 Design principles: signal-to-noise ratio, images and space.
 - 2.3 Slide design: contrast, repetition, alignment, proximity
 - 2.4 Highlighting; images, data, text
- **3. Presentation Language**
 - 3.1 Choosing language: word level
 - 3.2 Choosing language: sentence level
 - 3.3 Using discourse markers
 - 3.4 Using language to convey functions
- **4. Presentation Delivery**
 - 4.1 Learning voice control techniques
 - 4.2 Using effective timing
 - 4.3 Controlling body language
 - 4.4 Creating audience rapport
 - 4.5 Online presentation skills
- **5. Presentation Questions**
 - 5.1 Asking direct and indirect questions
 - 5.2 Asking negative and subject questions
 - 5.3 Answering questions effecitvely
 - 5.4 Dealing with difficult questions

ACTIVIDADES FORMATIVAS

Please see programme

EVALUACIÓN

FINAL DEGREE PROJECT: 40% of the mark.

FRONTIERS IN SCIENCE (30%)

20% of the mark: seminar attendance.

80% of the mark: final exam (multiple choice test with one question per seminar).

ENGLISH PRESENTATION SKILLS (30%)

The English Presentation Skills Module makes up 30% of the final course grade for the subject Scientific Research Skills, with 70% of the final course grade based on English Seminars and related activities.

The Presentations Skills module comprises 4 course submissions and 1 oral presentation in the second semester.

Each submission of the Presentations Skills Module is graded out of 10 and corresponds to 10% of the English grade. The oral presentation corresponds to 60% of the English grade.



HORARIOS DE ATENCIÓN

María Teresa López Vázquez

- Office 3050, Edificio Biblioteca de Ciencias.
- By arrangement (please email: mtlopez@unav.es)

Angel Garcimartín Montero

- Office O-140, Dpto. de Física y Mat. Apl., Edificio Los Castaños.
- By arrangement (please email: angel@unav.es)

BIBLIOGRAFÍA

- Duarte, N. (2008) *Slide:ology* Sebastopol CA: O'Reilly [Find it in the Library](#)
- Lebrun J. (2010) *When the Scientist Presents* London: World Scientific [Find it in the Library](#) (electronic resource)
- Powell, M. (2010) *Dynamic Presentations* Cambridge:Cambridge Univiersity Press [Find it in the Library](#)
- Powell, M. (2011) *Presenting In English* Andover:Heinle [Find it in the Library](#)
- Reynolds, G. (2012) *Presentation Zen* Berkely CA: New Riders [Find it in the Library](#) ; [Find in in the Library](#)
- Zanders, E and Maclead, L. (2010) *Presentation Skills for Scientists* Cambridge: Cambridge University Press [Find it in the Libray](#)

The essays by Edward Tufte concerning the display of scientific data are thought-provoking and challenging. You will probably find them both interesting and different:

- The visual display of quantitative information [Localízalo en la Biblioteca](#)
- Visual explanations : images and quantities, evidence and narrative [Localízalo en la Biblioteca](#)