



POLITÉCNICA

INTERNATIONAL  
CAMPUS OF  
EXCELLENCE

COORDINATION PROCESS OF  
LEARNING ACTIVITIES  
PR/CL/001



E.T.S. de Ingeniería y Sistemas  
de Telecomunicación

# ANX-PR/CL/001-01

## LEARNING GUIDE

### SUBJECT

**595030165 - Women In Science And Technology**

### DEGREE PROGRAMME

59SO - Grado en Ingeniería de Sonido e Imagen

### ACADEMIC YEAR & SEMESTER

2020/21 - Semester 2



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### Learning guide

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## 1. Description

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### 1.1. Subject details

|                                       |  |
|---------------------------------------|--|
| <b>Name of the subject</b>            | 595030165 - Women In Science And Technology                                |
| <b>No of credits</b>                  | 3 ECTS   |
| <b>Type</b>                           | Optional   |
| <b>Academic year of the programme</b> | Third year   |
| <b>Semester of tuition</b>            | Semester 6   |
| <b>Tuition period</b>                 | February-June  |
| <b>Tuition languages</b>              | English  |
| <b>Degree programme</b>               | 59SO - Grado en Ingeniería de Sonido e Imagen                              |
| <b>Centre</b>                         | 59 - Escuela Técnica Superior de Ingeniería y Sistemas de Telecomunicación |
| <b>Academic year</b>                  | 2020-21  |

## 2. Faculty

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### 2.1. Faculty members with subject teaching role

| <b>Name and surname</b>                      | <b>Office/Room</b> | <b>Email</b>         | <b>Tutoring hours *</b>                                     |
|--|--------------------|----------------------|---|
| Maria Pilar Ochoa Perez                      | A3112              | pilar.ochoa@upm.es   | Sin horario.<br>Tutoring hours will be published on Moodle. |
| Marta Sanchez Agudo<br>(Subject coordinator) | A3112              | marta.sanchez@upm.es | Sin horario.<br>Tutoring hours will be published on Moodle. |

|                            |       |                         |   |
|----------------------------|-------|-------------------------|---|
| Laura Barrutia Poncela     | A3111 | laura.barrutia@upm.es   | Sin horario.<br>Tutoring hours will<br>be published on<br>Moodle. |
| Pablo Merodio Camara       | A3110 | pablo.merodio@upm.es    | Sin horario.<br>Tutoring hours will<br>be published on<br>Moodle. |
| Francisco Prieto Castrillo | A3111 | francisco.prieto@upm.es | Sin horario.<br>Tutoring hours will<br>be published on<br>Moodle. |

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

### 3. Skills and learning outcomes \*

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#### 3.1. Skills to be learned

CG 02 - Capacidad de búsqueda y selección de información, de razonamiento crítico y de elaboración y defensa de argumentos dentro del área.

CG 03 - Capacidad para expresarse correctamente de forma oral y escrita y transmitir información mediante documentos y exposiciones en público.

CG 05 - Capacidad de trabajo en equipo y en entornos multidisciplinares.

CG 11 - Habilidades para la utilización de las Tecnologías de la Información y las Comunicaciones.

CG 12 - Habilidad para las relaciones interpersonales y el trabajo en un contexto nacional e internacional, con capacidad para expresarse de forma oral y escrita en lengua inglesa.

CG 14 - Actitudes de ética y responsabilidad profesional, respeto a los Derechos Humanos y a la diversidad cultural.

### 3.2. Learning outcomes

RA68 - Se concretarán para cada asignatura optativa o tipo de actividad según las competencias que contribuya a desarrollar.

\* 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.

## 4. Brief description of the subject and syllabus

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### 4.1. Brief description of the subject

This course provides a basic overview of the history of women in science and technology. Students will learn about the specific contributions of women in a variety of disciplines. The class will also address how both historical and modern biases within science and technology, as well as in the portrayals of women and girls in the media and popular culture, can affect outcomes in these areas. Students from all fields and levels of preparation are encouraged to join the course.

### 4.2. Syllabus

1. Introduction.
  - 1.1. What do we understand by science and gender?
  - 1.2. Motivation of this subject in the current sociocultural context.
2. History of women in science and technology
  - 2.1. Women scientists in the ancient world and Middle Ages
  - 2.2. From the Enlightenment to the 19th century
  - 2.3. The 19th and early 20th centuries
  - 2.4. World War II and social changes
3. Revolutionary scientists, but not recognized.
  - 3.1. The Matilda effect and its consequences.

- 3.2. The rarity of female Nobel laureates.
4. Current role of women in science.
5. How sexism and stereotyping in vocational education promote and reinforce gendered occupations
6. Neurosexism: the myth that men and women have different brains

## 5. Schedule

### 5.1. Subject schedule\*

| Week | Face-to-face classroom activities   | Face-to-face laboratory activities | Distant / On-line | Assessment activities  |
|------|---|------------------------------------|-------------------|--|
| 1    | Course introduction, instructor introduction, student introductions.<br>Presentation of a topic and in-class discussion.<br>Duration: 02:00<br>Lecture        |                                    |                   | Class attendance is compulsory and represents 10% of the total grade for the course.<br>Other assessment<br>Continuous assessment<br>Presential<br>Duration: 00:00 |
| 2    | Presentation of a topic and in-class discussion: What do we understand by science and gender?<br>Duration: 02:00<br>Additional activities                     |                                    |                   |  |
| 3    | Presentation of a topic and in-class discussion: Motivation of this subject in the current sociocultural context.<br>Duration: 02:00<br>Additional activities |                                    |                   |  |
| 4    | Presentation of a topic and in-class discussion: History of women in science and technology<br>Duration: 02:00<br>Additional activities                       |                                    |                   |  |
| 5    | Presentation of a topic and in-class discussion: History of women in science and technology<br>Duration: 02:00<br>Additional activities                       |                                    |                   |  |
| 6    | Presentation of a topic and in-class discussion: History of women in science and technology<br>Duration: 02:00<br>Additional activities                       |                                    |                   |  |
| 7    | Presentation of a topic and in-class discussion: History of women in science and technology<br>Duration: 02:00<br>Additional activities                       |                                    |                   |  |
| 8    |   |                                    |                   |  |
| 9    | Presentation of a topic and in-class discussion: Revolutionary scientists, but not recognized.<br>Duration: 02:00<br>Additional activities                    |                                    |                   |  |

|    |  |  |  |   |
|----|--|--|--|---|
| 10 | <p><b>Presentation of a topic and in-class discussion: Current role of women in science.</b><br/>Duration: 02:00<br/>Additional activities</p>   |  |  |   |
| 11 | <p><b>Presentation of a topic and in-class discussion: How sexism and stereotyping in vocational education promote and reinforce gendered occupations.</b><br/>Duration: 02:00<br/>Additional activities</p> |  |  |   |
| 12 | <p><b>Presentation of a topic and in-class discussion: Neurosexism: the myth that men and women have different brains</b><br/>Duration: 02:00<br/>Additional activities</p>                                  |  |  |   |
| 13 | <p><b>Presentation of a topic and in-class discussion: students class presentations.</b><br/>Duration: 02:00<br/>Additional activities</p>   |  |  | <p><b>Final paper (it will be your class presentation topic)</b><br/>Group work<br/>Continuous assessment<br/>Not Presential<br/>Duration: 00:00</p>      |
| 14 | <p><b>Presentation of a topic and in-class discussion: students class presentations.</b><br/>Duration: 02:00<br/>Additional activities</p>   |  |  | <p><b>Class presentation.</b><br/>Group presentation<br/>Continuous assessment<br/>Presential<br/>Duration: 02:00</p>                                     |
| 15 |  |  |  |   |
| 16 |  |  |  |   |
| 17 |  |  |  | <p><b>Final Written Exam and Oral Presentation (Martes, 25 de mayo)</b><br/>Other assessment<br/>Final examination<br/>Presential<br/>Duration: 02:00</p> |

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.



## 6. Activities and assessment criteria

### 6.1. Assessment activities

#### 6.1.1. Continuous assessment

| Week | Description  | Modality           | Type          | Duration | Weight | Minimum grade | Evaluated skills                                   |
|------|--|--------------------|---------------|----------|--------|---------------|--|
| 1    | Class attendance is compulsory and represents 10% of the total grade for the course. | Other assessment   | Face-to-face  | 00:00    | 10%    | 5 / 10        | CG 12<br>CG 03<br>CG 14                            |
| 13   | Final paper (it will be your class presentation topic)                               | Group work         | No Presential | 00:00    | 45%    | 3 / 10        | CG 12<br>CG 02<br>CG 03<br>CG 05<br>CG 14<br>CG 11 |
| 14   | Class presentation.  | Group presentation | Face-to-face  | 02:00    | 45%    | 3 / 10        | CG 12<br>CG 02<br>CG 03<br>CG 05<br>CG 14<br>CG 11 |

#### 6.1.2. Final examination

| Week | Description   | Modality         | Type         | Duration | Weight | Minimum grade | Evaluated skills                                   |
|------|---|------------------|--------------|----------|--------|---------------|--|
| 17   | Final Written Exam and Oral Presentation (Martes, 25 de mayo) | Other assessment | Face-to-face | 02:00    | 100%   | 5 / 10        | CG 12<br>CG 02<br>CG 11<br>CG 14<br>CG 03<br>CG 05 |

#### 6.1.3. Referred (re-sit) examination

| Description                              | Modality         | Type         | Duration | Weight | Minimum grade | Evaluated skills                                   |
|--|------------------|--------------|----------|--------|---------------|--|
| Final Written Exam and Oral Presentation | Other assessment | Face-to-face | 02:00    | 100%   | 5 / 10        | CG 12<br>CG 02<br>CG 03<br>CG 05<br>CG 14<br>CG 11 |

## 6.2. Assessment criteria

Class attendance is mandatory and represents 10% of the total grade for the subject. Students must attend at least 80% of the lessons to pass the subject. Otherwise a final exam must be taken. Those students attending 100% or at least 80% of the lessons will get 1 and 0.5 points (from a 10-point total grade), respectively.

In addition, students will work in groups to submit a written essay. Each essay will be presented in class by all members of each corresponding group.

In the event of failing continuous assessment, students will be evaluated based on an oral presentation and a written exam (Final examination).

## 7. Teaching resources

### 7.1. Teaching resources for the subject

| Name   | Type         | Notes |
|--|--------------|-------|
| Has feminism changed science?.<br>Londa Schiebinger. Harvard<br>University Press, 1999 | Bibliography |       |
| Women in Science: a Social and<br>Cultural History. Ruth Watts.<br>Routledge, 2007     | Bibliography |       |

|  |              |   |
|--|--------------|---|
| Notable Women in the Physical Sciences. A Biographical Dictionary. Barbara Smith Shearer and Benjamin F. Shearer. ABC-CLIO, 1997.                              | Bibliography |   |
| Women in science. European Commission. Publications Office of the European Union, 2010   | Bibliography |   |
| Madame Curie: A Biography. Eve Curie. Da Capo Press, 2001.   | Bibliography |   |
| The biographical dictionary of women in science: pioneering lives from ancient times to the mid-20th century. Marilyn Ogilvie and Joy Harvey. Routledge, 2000. | Bibliography |   |
| Inferior: How science got women wrong -and the new research that?s rewriting the story. A. Saini. Beacon Press.  | Bibliography |   |
| Delusions of Gender. Cordelia Fine. London icon books, 2011.   | Bibliography |   |
| Moodle   | Web resource |   |
| Classroom equipment  | Equipment    | Personal computer. Video projector. Blackboard. |

## 8. Other information

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### 8.1. Other information about the subject

The subject is related to Sustainable Development Goal 5: SDG5 (ODS 5).

**Communication with the teachers:** The student must request the tutorship by appointment from the teacher of the group in which he or she is enrolled. This can be done in person (when possible) or by email. The tutoring schedule for each teacher will be posted in Moodle at the beginning of the semester.

**The information contained in this guide is indicative and therefore subject to change due to errors, omissions, unforeseen incidents that occur during the academic year or if the correct development of the topic so advises.**

#### Learning Skills:

CG 02 - Ability to search and select information, critical reasoning and elaboration and defense of arguments within the area.

CG 03 - Ability to express oneself correctly orally and in writing and to transmit information through documents and public presentations.

CG 05 - Ability to work in a team and in multidisciplinary environments.

CG 11 - Skills for the use of the Information and Communication Technologies.

CG 12 - Ability for interpersonal relations and work in a national and international context, with the capacity to express oneself orally and in writing in the English language.