

Academic Year/course: 2021/22

## 29973 - Equity, Diversity and Inclusion in Technical Professions

### Syllabus Information

**Academic Year:** 2021/22

**Subject:** 29973 - Equity, Diversity and Inclusion in Technical Professions

**Faculty / School:** 110 - Escuela de Ingeniería y Arquitectura

**Degree:** 430 - Bachelor's Degree in Electrical Engineering

434 - Bachelor's Degree in Mechanical Engineering

435 - Bachelor's Degree in Chemical Engineering

436 - Bachelor's Degree in Industrial Engineering Technology

438 - Bachelor's Degree in Telecommunications Technology and Services Engineering

439 - Bachelor's Degree in Informatics Engineering

440 - Bachelor's Degree in Electronic and Automatic Engineering

470 - Bachelor's Degree in Architecture Studies

476 -

558 - Bachelor's Degree in Industrial Design and Product Development Engineering

581 - Bachelor's Degree in Telecommunications Technology and Services Engineering

**ECTS:** 4.0

**Year:** 470 - Bachelor's Degree in Architecture Studies: 5

581 - Bachelor's Degree in Telecommunications Technology and Services Engineering: 3

440 - Bachelor's Degree in Electronic and Automatic Engineering: 4

434 - Bachelor's Degree in Mechanical Engineering: 4

439 - Bachelor's Degree in Informatics Engineering: 4

435 - Bachelor's Degree in Chemical Engineering: 4

430 - Bachelor's Degree in Electrical Engineering: 4

436 - Bachelor's Degree in Industrial Engineering Technology: 4

438 - Bachelor's Degree in Telecommunications Technology and Services Engineering: 4

476 - : XX

558 - Bachelor's Degree in Industrial Design and Product Development Engineering: 4

**Semester:** 430 - First semester

435 - First semester

439 - First semester

440 - First semester

470 - First semester

476 - First semester

434 - First semester

436 - First semester

558 - First semester

438 - Second semester

581 - First semester

**Subject Type:** Optional

**Module:**

## 1. General information

### 1.1. Aims of the course

The aim of this course is to understand the social repercussions and commitments that technical professions, such as engineering and architecture, have in our contemporary world. They must be added to the global commitment of avoiding inequalities; a necessary task to build inclusive societies with democratic values based on freedom and social justice.

The SGD include in this course are:

- SGD 5. Gender equality and women's empowerment.

- SGD 10. Reduce inequality within and among countries.
- SGD 16. Peace justice and strong institutions.

## 1.2. Context and importance of this course in the degree

As an interdisciplinary course, it responds to the Equality Plan of the University of Zaragoza in its point 3.3 (Encouraging and supporting gender studies in degrees and postgraduates courses to promote equality training). In addition, the course is in line with the Sustainable Development Goals (SDG) set in 2015 by the United Nations General Assembly number 16 (Peace, justice, and strong institutions) and 5 (Gender Equality).

## 1.3. Recommendations to take this course

This course will be in English. Thus, it is necessary to have a medium-high knowledge of the English language to take it.

# 2. Learning goals

## 2.1. Competences

Interdisciplinary Competence 01 ? Ability to analyze and assess the social and environmental impact of solutions acting with ethics, professional responsibility, and social commitment.

Interdisciplinary Competence 02 ? Ability to work in a multidisciplinary group and in a multilingual environment.

## 2.2. Learning goals

In line with SDG 16 and SDG 5, the students will reflect on what kind of historical and cultural factors have generated, and still generate, situations of inequality between people, what kind of approaches to equality are necessary to take into account today for the sustainable and equitable development of their future profession and, finally, how introducing a gender perspective in their professional field can strengthen the creation of more inclusive societies.

## 2.3. Importance of learning goals

Students will be more aware of the structural inequalities that exist in our country, in particular, and in the globalized world in which we live in general. In addition, this course will awaken in them a gender awareness that will help them avoid inequalities that often go unnoticed in the workplace. Likewise, the course will introduce students to the current equality measures that the EU is carrying out in companies, institutions and universities.

# 3. Assessment (1st and 2nd call)

## 3.1. Assessment tasks (description of tasks, marking system and assessment criteria)

The active participation in the debate held in class (**Task 1**) will be **30%** of the course. In addition, the student must do an individual written work (**Task 2**), which will be **70%** of the final grade. This written work could be:

**Option 1:** Equality Project. The Project will focus on analyzing some aspects of our University that the student, after an informed diagnosis, could consider necessary to implement, addressing issues of equality, inclusion, and diversity. In any case, the topic must be related to the student's professional field (engineering or architecture).

**Option 2:** A theoretical Essay on Equality. The essay should be 5.000 words. In any case, the topic must be related to the student's professional field (engineering or architecture).

Both options will have a personalized follow up with the teacher in charge of the course.

# 4. Methodology, learning tasks, syllabus and resources

## 4.1. Methodological overview

- M1 Lecture.
- M2 Seminar.
- M3 Practice Session.
- M4 Tutorial
- M5 Task

## 4.2. Learning tasks

- Activity 1: Lectures (M1). Each week one of the topics of the class will be presented by the professor in charge of

the course.

- Activity 2: Readings (M2). Each week one or two texts (chapter books or articles) will be a debate in class so that the participation of the students is a key point of this activity.
- Activity 3: Practice Session. (M3)
- Activity 4: Tutorial (M4).
- Activity 5: Essay/Project (Written Work) (M5).

### 4.3. Syllabus

This course raises different Sections of study and debate combining Lectures (M1) with Seminars (M2).

#### **SECTION 01: Basic concept on (in) equality, inclusion, and diversity.**

- TOPIC 1. The dualism ?sex/gender?. The idea of ?equality in difference?.
- TOPIC 2. Raze as a social construction.
- TOPIC 3. The definition of ?the-women? and the idea of ?heterosexual matrix?. Intersectionality as a key concept in feminist thinking.
- TOPIC 4. The *queer* perspective and the de-construction of sex-gender dualism.

Compulsory Readings:

- Simone de Beauvoir, *The Second Sex* (1949).
- Frantz Fanon, *Black Skin, White Masks* (1952).
- Monique Wittig, *One is not born a woman* (1981).
- Audre Lorde, *Age, Race, Class, and Sex: Women redefining difference* (1984).
- Judith Butler, *Gender Trouble. Feminism and the Subversion of Identity* (1990).
- bell hooks, *Feminism is for everybody: passionate politics* (2000).

#### **SECCION 02: (In)Equalities in (fe)male architects and engineers. Education, (in)visibility and feminist actions.**

- TOPIC 5. The social contract and the modern political, economic, and educational thoughts of Rousseau and Locke. The creation of the (male) public and the (female) private spheres.
- TOPIC 6. Franco's Regime education policies and their consequences in gendered professions.
- TOPIC 7. The no-neutrality of the ?History? and the ?Canon?. The (in)visibility of women architects and engineers.
- TOPIC 8. EU plans on equality and gender plans policies in Companies, Institutions, and Universities.

Compulsory Readings:

- Carole Pateman, *The disorder of Women: Democracy, Feminism, and Political Theory* (1990).
- Begoña Barrera, *La Sección Femenina, 1934-1977: Historia de una tutela emocional* (2019).
- Julie Willis, *Invisible Contributions: The problem of History and women Architects* (1998).
- Kathryn H. Anthony, *The Canon, and the Void: Gender, Race, and Architectural History Texts* (2006).
- Andrew Saint, *The architect as hero and genius* (1983).
- Erin A. Cech, *Ideological Wage Inequalities? The Technical/Social Dualism and the Gender Wage Gap in Engineering* (2013)
- Margaret E. Layne, *Women in Engineering: Pioneers and Trailblazers* (2009)
- Inés Sánchez de Madariaga, *Las carreras de las mujeres en la arquitectura. Políticas, planes y actuaciones* (2018)

#### **SECCION 03: (In)Equalities produce by architecture and engineering designs. The need for an intersectional (gender, class, race, etc.) perspective in technical professions.**

- TOPIC 9. The difficulty of identifying exclusions. Designing for diversity.
- TOPIC 10. The need for an intersectional perspective in architecture and urban design.
- TOPIC 11. The need for an intersectional perspective in engineering design and development of (digital and physical) products.

Compulsory Readings:

- Jane Jacobs, *The Life and Death of Great American Cities* (1961)
- Dolores Hayden, *What Would a non-sexist city be like? Speculations on Housign, Urban Design and Human Work* (1980)
- María Ángeles Durán, *La ciudad compartida. Conocimiento, afecto y uso* (1998)
- Leslie Kanes Weisman, *Discrimination by Design* (1992)
- Kathryn H. Anthony, *Designing for Diversity* (2008)
- Miguel A. García-Ruiz, *Cases on Usability Engineering: Design and Development of Digital Products* (2013)

#### **4.4. Course planning and calendar**

Each week one or two topics will be discussed in class. The weekly organization of the course will be:

- Week 01: Presentation of the course.
- Weeks 02 to 05: SECTION 01. Topics 1 to 4.
- Weeks 06 a 09: SECTION 02. Topics 5 to 8.
- Week 10. Review of written works.
- Weeks 11 a 15: SECTION 03. Topics 9 to 11.

Delivery of written work (Task 2): According to the Official Calendar of the Center.

#### **4.5. Bibliography and recommended resources**

See Syllabus (point 4.3) and the recommended bibliography at the Library website.