

29978 - Challenges and consequences of the technical development

Información del Plan Docente

Academic Year	2017/18
Faculty / School	110 - Escuela de Ingeniería y Arquitectura
Degree	436 - Bachelor's Degree in Industrial Engineering Technology
ECTS	4.0
Year	4
Semester	Half-yearly
Subject Type	Optional
Module	---

1.General information

1.1.Introduction

1.2.Recommendations to take this course

1.3.Context and importance of this course in the degree

1.4.Activities and key dates

2.Learning goals

2.1.Learning goals

2.2.Importance of learning goals

3.Aims of the course and competences

3.1.Aims of the course

3.2.Competences

4.Assessment (1st and 2nd call)

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

5.Methodology, learning tasks, syllabus and resources

5.1.Methodological overview

A brief video or participatory debate will be introduced in those theoretical and practical sessions where new concepts are introduced. Then through a brainstorming the students present their impressions on these concepts, thus creating a critical debate.

29978 - Challenges and consequences of the technical development

It aims to achieve a learning process based on enriching experiences, creating spaces for discussion and involving students in actual actions that stimulate decisions and conflict resolution.

The tutorials can be used to review both knowledge and the work done by the student. To follow the course contents the student will have the teaching material developed by the teachers.

5.2.Learning tasks

The theoretical teaching of the subject will be developed through participatory classes and conferences. The theoretical teaching will be complemented by tutored working (distributed along the course according to schedule established by the EINA) and autonomous works. All these activities will be supported through the Moodle application, by using the *Anillo Digital Docente* of the University of Zaragoza.

5.3.Syllabus

- * Technique: Logic and consequences
- * Technical progress: sustainable development, climate change and the consequences of technical development on the environment.
- * Revolutions, digital eras and Industry 5.0
- * The transformation of the space concept and reference systems.

5.4.Course planning and calendar

The theoretical lessons will be complemented by case studies, distributed along the course. All these activities will be supported through the Moodle platform, using the *Anillo Digital Docente* of the University of Zaragoza. There will be a final delivery of the course work.

The dates set for the work presentations will be communicated to students at the beginning of the course, and by the Moodle application of the subject, considering the academic calendar of the EINA.

5.5.Bibliography and recommended resources

Ábalos, I. (2010). *Naturaleza y artificio*. Barcelona: Gg.

Anaya Díaz, J. (2007). *Arquitectura e ingeniería*. Madrid: Fundación COAM.

Baudrillard, J. (1984). *Cultura y simulacro : La precesión de los simulacros,el efecto beaubourg,a la sombra de las mayorías silenciosas, el fin de lo social* (2ª ed.). Barcelona: Kairós.

Bunge, M. (2014). *Ciencia, técnica y desarrollo* (3ª rev y con un nuevo prólogo [1ª en editorial ed.]). Pamplona: Laetoli.

Deleuze, G., Guattari, F., Vázquez Pérez, J., & Larraceleta, U. (2010; 1977). *Rizoma: (introducción)* (1ª , 7a reimpr ed.). Valencia: Pre-textos.

29978 - Challenges and consequences of the technical development

- Delgado, M. (2015). *El espacio público como ideología* (2ª ed.). Madrid: Los Libros de la Catarata.
- Forsthoﬀ, E. (1975). *El estado de la sociedad industrial*. Madrid: Instituto de Estudios Políticos.
- Freedom Club. (2011). *La sociedad industrial y su futuro*. Valladolid: Isumatag.
- García Bacca, J. D. (1987). *Elogio de la técnica* (1ª ed.). Barcelona: Anthropos.
- García Bacca, J. D. (2006). *Ciencia, técnica, historia y filosofía en la atmósfera cultural de nuestro tiempo :Qué es "sociedad" (ensayo de "definirla" científica y ontológicamente)* (1a ed.). Rubí Barcelona: Anthropos.
- García Bacca, J. D., & García Bacca, J. D. (2006). *Ciencia, técnica, historia y filosofía en la atmósfera cultural de nuestro tiempo* (1ª ed.). Barcelona: Anthropos.
- Habermas, J. (2005; 1999). *Ciencia y técnica como "ideología"* [Technik und Wissenschaft als "Ideologie"] (4ª , 3ª reimp ed.). Madrid: Tecnos.
- Han, B., & Gabás, R. (2013). *La sociedad de la transparencia*. Barcelona: Herder.
- Harari, Y. N. (., & Ros, J. (2016). *Homo deus: Breve historia del mañana*. Barcelona: Debate.
- Koyré, A., & Solís Santos, C. (2015). *Del mundo cerrado al universo infinito* (5ª reimp ed.). Madrid: Siglo Veintiuno.
- Le Corbusier, & Torres Cueco, J. (2014; 1966). *Mise au point* [Mise au point]. Madrid: Abada Editores.
- Lovelock, J. E. (2007). *La venganza de la tierra* [The revenge of Gaia] (1ª ed.). Barcelona: Planeta.
- Lovelock, J. E. (1983). *Gaia: Una nueva visión de la vida sobre la tierra*. Madrid: Hermann Blune.
- Ordine, N., & Flexner, A. (2013). *La utilidad de lo inútil: Manifiesto* [L'utilità dell'inutile] (1ª ed.). Barcelona: Acantilado.
- Ortega y Gasset, J. (1965). *Meditación de la técnica*. Madrid: Espasa-Calpe.
- Riu, F. (2010). *Ensayos sobre la técnica en ortega, heidegger, garcía bacca, mayz* (1ª ed.). Rubí, Barcelona: Anthropos.
- Sennett, R. (2009). *El artesano* [The craftsman] (1ª ed.). Barcelona: Anagrama.
- Sennett, R. (2012). *Juntos: Rituales, placeres y políticas de cooperación* [Together] (1ª ed.). Barcelona: Anagrama.
- Sennett, R., & Anglès, M. (2013). *Artesanía, tecnología y nuevas formas de trabajo ; hemos perdido el arte de hacer ciudades : (entrevista de magda anglès)* (1ª ed.). Buenos Aires ; Madrid; Barcelona: Katz; Cccb.

29978 - Challenges and consequences of the technical development

Silva, M., & Amengual Matas, R. R. (2007). *Técnica e ingeniería en España* . Zaragoza: Real Academia de Ingeniería Institución "Fernando el Católico" etc.