

Course guide

330405 - EAP - Applied Statistics

Last modified: 04/05/2023

Unit in charge: Manresa School of Engineering
Teaching unit: 749 - MAT - Department of Mathematics.

Degree: BACHELOR'S DEGREE IN MINING ENGINEERING (Syllabus 2016). (Compulsory subject).

Academic year: 2023 **ECTS Credits:** 4.5 **Languages:** Catalan, Spanish

LECTURER

Coordinating lecturer: Palacios Quiñonero, Francisco

Others: Alsina Aubach, Montserrat - Cors Iglesias, Josep M. - Domenech Blazquez, Margarita - Freixas Bosch, Josep - Gimenez Pradales, Jose Miguel - Puente Del Campo, M. Albina - Rossell Garriga, Josep Maria - Rubió Masegú, Josep

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

Specific:

1. (ENG) Capacitat per la resolució dels problemes matemàtics que puguin sorgir en l'enginyeria. Aptitud per aplicar els coneixements sobre: àlgebra lineal, geometria, geometria diferencial, càlcul diferencial i integral, equacions diferencials i en derivades parcials, mètodes numèrics, algorísmica numèrica, estadística i optimització.

Transversal:

2. EFFICIENT ORAL AND WRITTEN COMMUNICATION - Level 1. Planning oral communication, answering questions properly and writing straightforward texts that are spelt correctly and are grammatically coherent.

3. TEAMWORK - Level 1. Working in a team and making positive contributions once the aims and group and individual responsibilities have been defined. Reaching joint decisions on the strategy to be followed.

4. SELF-DIRECTED LEARNING - Level 1. Completing set tasks within established deadlines. Working with recommended information sources according to the guidelines set by lecturers.

TEACHING METHODOLOGY

LEARNING OBJECTIVES OF THE SUBJECT

STUDY LOAD

Type	Hours	Percentage
Hours medium group	45,0	40.00
Self study	67,5	60.00

Total learning time: 112.5 h



CONTENTS

title english

Description:

content english

Full-or-part-time: 22h 30m

Theory classes: 3h

Laboratory classes: 6h

Self study : 13h 30m

title english

Description:

content english

Full-or-part-time: 30h

Theory classes: 4h

Laboratory classes: 8h

Self study : 18h

title english

Description:

content english

Full-or-part-time: 30h

Theory classes: 4h

Laboratory classes: 8h

Self study : 18h

title english

Description:

content english

Full-or-part-time: 30h

Theory classes: 4h

Laboratory classes: 8h

Self study : 18h

ACTIVITIES

name english

Full-or-part-time: 4h

Practical classes: 1h

Self study: 3h



name english

Full-or-part-time: 4h

Practical classes: 1h

Self study: 3h

name english

Full-or-part-time: 4h

Laboratory classes: 1h

Self study: 3h

name english

Full-or-part-time: 5h 30m

Theory classes: 1h 30m

Self study: 4h

name english

Full-or-part-time: 5h 30m

Theory classes: 1h 30m

Self study: 4h

GRADING SYSTEM

BIBLIOGRAPHY

Basic:

- Grima Cintas, Pere; Marco Almagro, Lluís; Tort-Martorell Llabrés, Xavier. Estadística práctica con Minitab. Madrid [etc.]: Pearson Educación, cop. 2004. ISBN 8420543551.
- Walpole, Ronald E. Probabilidad y estadística para ingeniería y ciencias [on line]. 9ª ed. México: Pearson Educación, 2012 [Consultation: 07/06/2022]. Available on: https://www-ingebook-com.recursos.biblioteca.upc.edu/ib/NPcd/IB_BooksVis?cod_primaria=1000187&codigo_libro=6766. ISBN 9786073214179.
- Ryan, Barbara F; Joiner, Brian L. Minitab handbook. 3rd ed. Belmont, CA: Duxbury Press, 1994. ISBN 0534212409.
- Forcada, Santiago; Rubió Masegú, Josep. Elements d'estadística [on line]. Barcelona: Edicions UPC, 2007 [Consultation: 06/11/2020]. Available on: <http://hdl.handle.net/2099.3/36675>. ISBN 9788483019269.
- Devore, Jay L; García Hernández, Ana Elizabeth; Torres Flores, Jesús Miguel; León Cárdenas, Javier. Probabilidad y estadística para ingeniería y ciencias. 9ª ed. México: Cengage Learning, 2016. ISBN 9786075228280.

Complementary:

- Moore, David S. Estadística aplicada básica [on line]. 2a ed. Barcelona: Antoni Bosch, 2005 [Consultation: 29/07/2022]. Available on: https://search-ebscohost-com.recursos.biblioteca.upc.edu/login.aspx?direct=true&AuthType=ip,uid&db=nlebk&AN=803821&site=ehost-live&ebv=EB&ppid=pp_Cover. ISBN 8495348047.
- Mendenhall, William; Scheaffer, Richard L; Wackerly, Dennis D. Estadística matemática con aplicaciones. México: Grupo Editorial Iberoamérica, 1986. ISBN 9687270179.
- Lipschutz, Seymour; Schiller, John J. Introducción a la probabilidad y estadística. Madrid [etc.]: McGraw-Hill/Interamericana de

España, DL 2001. ISBN 8448125045.