ENG-606(a)

Design of experiments (a) - Fall semester

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Cursus	Sem.	Type
Advanced Manufacturing		Opt.
Civil & Environmental Engineering		Opt.
Energy		Opt.
Mechanics		Opt.
Robotics, Control and Intelligent Systems		Opt.

Language of teaching	English
Credits	4
Session	
Exam	Project report
Workload	120h
Hours	**56**
Courses	20
TP	36
Number of positions	

Remark

Online block course from October 5 to 16, 2020

Content

Experiment analysis and planning

Treatment of qualitative factors

- Inference of constant and random coefficient models
- Graeco-latin squares design
- Balanced bloc design
- Analysis of variance (Anova)

Treatment of quantitative factors

- Empirical models
- Matricial treatment of the multilinear regression
- Analysis of non-orthogonal estimators
- Analysis of variance

Standard designs for first and second degree models

- Hadamard, factorial, fractional factorial designs
- Normal and half normal
- Composite, Doehlert and Box Behnken design
- Canonical analysis