ESCUELA TÉCNICA SUPERIOR DE INGENIERÍA AGRONÓMICA Y DE MONTES

GRADO DE INGENIERÍA AGROALIMENTARIA Y DEL MEDIO RURAL

2024/25 YEAR

VALORACIÓN DE OBRAS AGRARIAS Y CONTROL DE CALIDAD

Course details

Course name: VALORACIÓN DE OBRAS AGRARIAS Y CONTROL DE CALIDAD
Code: 643041
Degree/Master: GRADO DE INGENIERÍA AGROALIMENTARIA Y DEL MEDIO RURAL **Year:**
Field: OPTATIVIDAD
Character: OPTATIVA **Duration:** SECOND TERM
ECTS Credits: 4.0 **Classroom hours:** 40
Face-to-face classroom percentage: 40.0% **Study hours:** 60
Online platform: https://moodle.uco.es/

Coordinating teacher

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Brief description of the contents

- Practical implementation of the document Measures and Budget of Engineering Projects through using methodologies And IT tools (PRESTO) adapted to the current conception in the drafting of Execution Projects in the field of Agroforest Engineering.
- Study of the quality control of the execution of construction works in the field of Agroforest Engineering, through the use of certifications, requirements for technical execution of work units and purchasing management.

Prerequisites

Prerequisites established in the study plan

None.

Recommendations

Having passed the subject "Engineering Projects".

Study programme

1. Theory contents

T1. Introduction to the budget and control of engineering project costs.
T2. Budgets in earthworks projects. Presto basics.
T3. Budgets in concrete works. Measurements in Presto.
T4. Budgets in steel works.
T5. Budgets in rural roads. Printing reports in Presto.
T6. Budgets in urbanization projects. Certifications in Presto.
T7. Control in the production of reinforced concrete
T8. Control in the execution of reinforced concrete
T9. Control in execution of works of linear infrastructures according to PG3
T10. CE marking of building materials

2. Practical contents

P1. Design of budgets in a range of works related to agroforest engineering projects.
P2. Delivering budget reports in agroforest engineering projects.
P3. Visit to works or installations related to quality control implementation.

Bibliography

- **Basic Bibliography**
- Machado Bueno, A. Presto 11. Presupuestos, mediciones y certificaciones de obras. Ed. Anaya, Madrid. 2011
- Colegio Oficial de Aparejadores, Arquitectos Técnicos e Ingenieros de Edificación de Madrid. (2009). Guía para la redacción del plan de control de calidad y su seguimiento en la obra. Madrid: Colegio Oficial de Aparejadores, Arquitectos Técnicos e Ingenieros de Edificación de Madrid.
- Código Técnico de la Edificación. [En línea] Dirección General de Arquitectura y Política de Vivienda del Ministerio de Vivienda, 2006. http://www.codigotecnico.org/
- Código estructural (2021). Centro de Publicaciones Secretaria General Tecnica Ministerio de Fomento

- **Further reading**
- Valderrama, F. Mediciones y presupuestos. Ed. Reverte, Madrid. 2010
- Presto Software. RIB Spain. https://www.rib-software.es/

Methodology

General clarifications on the methodology (optional)

This subject is strongly oriented to practice, by mainly working and solving real-life case studies using software tools (such as Presto or equivalent software for engineering budgets) and participating in technical visits to companies and team-work collaboration in a final project.

Methodological adaptations for part-time students and students with disabilities and special educational needs

All theoretical concepts will be applied individually in a computer post in the computer classroom and will be applied in specific examples that will be progressively developed throughout the course. Part-time students must make up for the lack of assistance with complementary work that includes the contents treated in the classroom classes.

The practical development of the learning of the tools in computer room will be carried out in small groups, adapted to the number of computer and licenses available.

Face-to-face activities

Activity	Large group	Small group	Total
Assessment activities	20	5	25
Information processing activities	15	-	15
Total hours:	***35***	***5***	***40***

Off-site activities

Activity	Total
Exercise and problem solving activities	20
Information processing activities	20
Information search activities	20
Total hours	***60***

outcomes of the learning process

Knowledge, skills and abilities

COM01

COM02

COM03

COM04

COM05

COM06

C14

HD09

Assessment methods and instruments

Intended learning outcomes	Attendance checklist	Examination	Group or individual globalizing projects	Students assignments
C14	X	X	X	
COM01		X		X
COM02		X		X
COM03		X		X
COM04		X		X
COM05		X		X
COM06		X		X
HD09	X	X	X	
Total (100%)	***10%***	***40%***	***30%***	***20%***
Minimum grade (*)	***4***	***4***	***4***	***4***

(*)The minimum grade that students must obtain in each of the evaluable activities in order to pass the course shall not exceed 5,0.

General clarifications on instruments for evaluation:

- The student must have a minimum of 4 in each of the parts and a mean over 5 to pass the subject
- The evaluation on budgets in rural works will involve handouts on problem solving for study cases (10% in student assignments) and a
final exam (40%) including the appraisal of the costs of a rural work using software for engineering budgets and a vocabulary questionaire as studied in class.
- The evaluation on quality control in rural works will be carried out through a group work (30%) and a report (10% in student assignments) on the technical visit to a quality control laboratory.
- Attendance to presential classes will account for 10 % of the final mark.

Clarifications on the methodology for part-time students and students with disabilities and special educational needs:

Part-time students must compensate for the lack of attendance with complementary work that includes the contents treated in the classes. The percentage of the assessment of assistance will be incorporated along with the evaluation of practical cases and practice reports.

Clarifications on the evaluation of the extraordinary call and extra-ordinary call for completion studies:

- First extraordinary call: the general rules above apply. In addition, any of the parts of the course (budgets or quality control) passed in previous calls will be saved for this call
- Course ending extraordinary call: the general rules above apply. In addition, any of the parts of the course (budgets or quality control) passed in previous calls will be saved for this call

Qualifying criteria for obtaining honors:

The minimum mark to pass the subject with honors is 9.5.

Sustainable development goals

Gender equality
Decent work and economic growth
Sustainable cities and communities
Climate action

Other Faculty

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The methodological strategies and the evaluation system contemplated in this Teaching Guide will respond to the principles of equality and non-discrimination and must be adapted according to the needs presented by students with disabilities and special educational needs in the cases that are required. Students must be informed of the risks and measures that affect them, especially those that may have serious or very serious consequences (article 6 of the Safety, Health and Welfare Policy; BOUCO 23-02-23).