



PRESENTACIÓN

Breve descripción: The main objective is to familiarize the students with measurement and instrumentation techniques.

- **Titulación:**
- **Módulo/Materia:**
- **ECTS:**
- **Curso, semestre:**
- **Carácter:**
- **Profesorado:**
- **Idioma:**
- **Aula, Horario:**

COMPETENCIAS

PROGRAMA

The main objective is to familiarize the students with measurement and instrumentation techniques in the following topics:

- Strain gauge measurements
- Selection of sensors and transducers
- Signal conditioning: Wheatstone bridge, Cold junction for thermocouples, amplifiers, ...
- Use of data acquisition boards
- Calibration: sensitivity, hysteresis, accuracy, reproducibility, etc.

Theory covering these topics is distributed in the following lessons:

1. The general measurement system
2. Static characteristics of measurement system elements
3. The accuracy of measurement systems in the steady state
4. Dynamic characteristics of measurement systems
5. Signals and noise in measurement systems
6. Reliability, choice and economics of measurement systems
7. Sensors
8. Signal conditioning elements
9. Signal processing elements
10. Data acquisition

ACTIVIDADES FORMATIVAS

The training activities will consist of:

- Viewing of the videos with the explanations of the theoretical topics.
- Study of the transparencies corresponding to the different theoretical topics.
- Carrying out of problems.



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- Asking doubts to the responsible teacher by requesting an appointment by e-mail.

EVALUACIÓN

CONVOCATORIA ORDINARIA

- La evaluación consistirá en la realización de un examen final consistente en preguntas de teoría cortas y problemas.

CONVOCATORIA EXTRAORDINARIA

- Para la evaluación extraordinaria se realizará otro examen consistente en preguntas de teoría cortas y problemas.

HORARIOS DE ATENCIÓN

Dr Javier Díaz Dorronsoro (jdiaz@unav.es)

- Despacho 218 Edificio Miramón Planta 2
- Horario de tutoría: Concretar cita con el profesor

BIBLIOGRAFÍA