



| Teaching Guide           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |        |          |           |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----------|-----------|
| Identifying Data         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |        | 2020/21  |           |
| Subject (*)              | Supervisión e diagnose aplicados ó mantemento                                                                                                                                                                                                                                                                                                                                                                                                                                                |        | Code     | 631417105 |
| Study programme          | Máster en Enxeñaría Marítima                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |        |          |           |
| Descriptors              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |        |          |           |
| Cycle                    | Period                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Year   | Type     | Credits   |
| Official Master's Degree | Yearly                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | First  | Optional | 4         |
| Language                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |        |          |           |
| Teaching method          | Face-to-face                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |        |          |           |
| Prerequisites            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |        |          |           |
| Department               | Enxeñaría IndustrialEnxeñaría Naval e Industrial                                                                                                                                                                                                                                                                                                                                                                                                                                             |        |          |           |
| Coordinador              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | E-mail |          |           |
| Lecturers                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | E-mail |          |           |
| Web                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |        |          |           |
| General description      | Adquisición de conocimientos, habilidades y destreza en la implementación y el manejo de sistemas de supervisión y diagnosis aplicados al mantenimiento de instalaciones marinas e industriales en base al análisis de vibraciones mecánicas<br>Adquisición de capacidades para comprender analizar y resolver problemas prácticos sobre supervisión de plantas e instalaciones marítimo-industriales en base al diagnóstico basado en los resultados del análisis de vibraciones mecánicas. |        |          |           |
| Contingency plan         | 1. Modifications to the contents<br><br>2. Methodologies<br>*Teaching methodologies that are maintained<br><br>*Teaching methodologies that are modified<br><br>3. Mechanisms for personalized attention to students<br><br>4. Modifications in the evaluation<br><br>*Evaluation observations:<br><br>5. Modifications to the bibliography or webgraphy                                                                                                                                     |        |          |           |

| Study programme competences |                             |
|-----------------------------|-----------------------------|
| Code                        | Study programme competences |

| Learning outcomes |                             |
|-------------------|-----------------------------|
| Learning outcomes | Study programme competences |

| Contents                                                       |                                                                                  |
|----------------------------------------------------------------|----------------------------------------------------------------------------------|
| Topic                                                          | Sub-topic                                                                        |
| Herramientas de adquisición de datos de vibraciones mecánicas. | Arquitecturas de los equipos de adquisición de vibraciones.<br><br>Acelerómetros |



|                                                |                                                                                                                                                                                                                            |
|------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Técnicas de diagnosis de vibraciones mecánicas | <p>Patrones de fallos en maquinaria industrial</p> <p>Detección de fallos mediante análisis de vibraciones</p> <p>Aislamiento e identificación de fallos en base a las características de los espectros de vibraciones</p> |
| Analisis de vibraciones mecánicas              | <p>Herramientas de software de análisis de vibraciones:</p> <p>Análisis con entorno NI-Lab-View</p> <p>Análisis con entorno Matlab</p> <p>Análisis con entorno VEE</p>                                                     |

| Planning                                                                                                                        |              |                      |                               |             |
|---------------------------------------------------------------------------------------------------------------------------------|--------------|----------------------|-------------------------------|-------------|
| Methodologies / tests                                                                                                           | Competencies | Ordinary class hours | Student?s personal work hours | Total hours |
| Workshop                                                                                                                        |              | 40                   | 60                            | 100         |
| Personalized attention                                                                                                          |              | 0                    |                               | 0           |
| (*)The information in the planning table is for guidance only and does not take into account the heterogeneity of the students. |              |                      |                               |             |

| Methodologies |                                                                                                                                                                                                                    |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Methodologies | Description                                                                                                                                                                                                        |
| Workshop      | Consiste en asimilar a información relacionada cos contidos e de seguido a lealización de prácticas encamiñadas a solución de problemas técnicos de diagnosis de fallos mecánicos en base o análisis de vibracións |

| Personalized attention |                                                                                                  |
|------------------------|--------------------------------------------------------------------------------------------------|
| Methodologies          | Description                                                                                      |
| Workshop               | atenderase a cada alumno en función das necesidades observadas durante as tarefas de aprendizaxe |

| Assessment    |              |                                                                |               |
|---------------|--------------|----------------------------------------------------------------|---------------|
| Methodologies | Competencies | Description                                                    | Qualification |
| Workshop      |              | verificación da actividade persoal.<br>examen teórico-práctico | 100           |
| Others        |              |                                                                |               |

| Assessment comments |
|---------------------|
|                     |

| Sources of information |                                                                      |
|------------------------|----------------------------------------------------------------------|
| Basic                  | - R.A.Collacott (1977). Mechanical fault diagnosis. Chapman and Hall |
| Complementary          |                                                                      |

| Recommendations                                                      |
|----------------------------------------------------------------------|
| Subjects that it is recommended to have taken before                 |
|                                                                      |
| Subjects that are recommended to be taken simultaneously             |
|                                                                      |
| Subjects that continue the syllabus                                  |
|                                                                      |
| Other comments                                                       |
| Contactar al profesor de la asignatura para planificar su desarrollo |



(\*)The teaching guide is the document in which the URV publishes the information about all its courses. It is a public document and cannot be modified. Only in exceptional cases can it be revised by the competent agent or duly revised so that it is in line with current legislation.