

| Course: Materials for Biomedical applications | | | | | | |
|--|--------|-------------|--|--|--|--|
| POSTGRADO: MÁSTER IN MATERIALS SCIENCE AND TECNOLOGY | ECTS:3 | SEMESTRE: 2 | | | | |
| Profesor/a: Elisa Mª Ruiz | | | | | | |

| CRONOGRAMA DE LA ASIGNATURA (versión detallada) | | | | | | | | | |
|---|--------|--|---------------------|---|---|---|-----------------------|---------------------------------------|--|
| MANA | SESIÓN | DESCRIPCIÓN DEL CONTENIDO DE LA SESIÓN | GRUPO (marcar X) | | Indicar espacio Necesario distinto aula (aula informática, | TRABAJO DEL ALUMNO DURANTE LA SEMANA | | | |
| SEN | | | 1 | 2 | audiovisual, etc) | DESCRIPCIÓN | HORAS PRESENCIALES | HORAS TRABAJO Semana Máximo 7 H | |
| 1 | 1 | Introduction to the course | x | | | Study and preparation of the following session with the recommended bibliography | 1.5 | 4 | |
| 1 | 2 | Topic 1. Introduction to Biomaterials and Biological Materials. | x | | | Study and preparation of the following session with the recommended bibliography | 1.5 | 4 | |
| 2 | 3 | Topic 2. Biological Response and biocompatibility | x | | | Study and preparation of the following session with the recommended bibliography | 1.5 | 4 | |
| 2 | 4 | Topic 3. Testing of biocompatibility, cytotoxicity and cytocompatibility. Laboratory | | x | Laboratory | Laboratory assistance Writing Report | 1.5 | 5 | |



| 3 | 5 | Topic 3. Testing of biocompatibility, cytotoxicity and cytocompatibility. Laboratory | | × | Laboratory | Laboratory assistance Writing Report | 1.5 | 5 |
|---|----|--|---|---|------------|---|-----|---|
| 3 | 6 | Topic 4. Hard and soft Biomaterials (Tissue Engineering). | x | | | Study and preparation of the following session with the recommended bibliography | 1.5 | 4 |
| 4 | 7 | Topic 5. Metallic Biomaterials. Properties and main applications | x | | | Study and preparation of the following session with the recommended bibliography | 1.5 | 4 |
| 4 | 8 | Topic 5. Metallic Biomaterials. Properties and main applications | x | | | Study and preparation of the following session with the recommended bibliography | 1.5 | 4 |
| 5 | 9 | Topic 6. Polymeric Biomaterials. Properties and main applications | x | | | Study and preparation of the following session with the recommended bibliography | 1.5 | 4 |
| 5 | 10 | Topic 7. Ceramic Biomaterials. Properties and main applications | x | | | Study and preparation of the following session with the recommended bibliography | 1.5 | 4 |
| 6 | 11 | Topic8.BiomaterialsandHealthSciences:Biomaterials for bone regenerationTopic 8 Biomaterials and Health Sciences: Materials for | x | | | Study and preparation of the following session with the | 1.5 | 4 |



| | | gene transfer | | | | recommended bibliography | | |
|-------------|----|---|---|--|--|---|-----|----|
| 6 | 12 | Topic 8. Biomaterials and health sciences: Composite Materials with antibacterial properties | x | | | Study and preparation of the following session with the recommended bibliography | 1.5 | 4 |
| TOTAL HOURS | | | | | | | 18 | 50 |