Vicerrectorado de Estudios
Apoyo a la docencia y gestión del grado

| COURSE: RENEWABLE ENERGY PLANTS |  |  |
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| DEGREE: MECHANICAL ENGINEERING | YEAR: 4 | TERM: 2 |


| WEEKLY PLANNING |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | S |  | TEACHING (mark X) |  | SPECIAL ROOM FOR SESSION (Computer class room, audio-visual class room) | WEEKLY PROGRAMMING FOR STUDENT |  |  |
| W E E K | $\begin{aligned} & E \\ & S \\ & S \\ & I \\ & 0 \\ & N \end{aligned}$ | DESCRIPTION | L E C T U R E S | $\begin{gathered} \mathrm{S} \\ \mathrm{E} \\ \mathrm{M} \\ \mathrm{I} \\ \mathrm{~N} \\ \mathrm{~A} \\ \mathrm{R} \\ \mathrm{~S} \\ \hline \end{gathered}$ |  | DESCRIPTION | $\begin{gathered} \text { CLASS HOURS } \\ (1,66=50+50 \mathrm{~min}) \end{gathered}$ | HOMEWORK <br> HOURS <br> (Max. Estim. $3,25 h$ ) |
| 1 | 1 | Solar energy: Available solar radiation. Measurement of solar radiation | X |  | no |  | 1.66 | 3.25 |
| 2 | 2 | Solar radiation on surfaces of fixed orientation | X |  | no |  | 1.66 | 3.25 |
| 3 | 3 | Technologies of solar thermal collectors | X |  | no |  | 1.66 | 3.25 |
| 4 | 4 | Desing of solar facilities to produce domestic hot water, heating and cooling. | X |  | no |  | 1.66 | 3.25 |
| 5 | 5 | Solar radiation on surfaces with solar tracking | X |  | no |  | 1.66 | 3.25 |
| 6 | 6 | Lab 1: Visit to the solar thermal facility of the department. Meterological station and data acquisition. Measurements of diffuse and global solar radiation along a day. |  |  | yes | Lab department | 1.66 | 3.25 |
| 7 | 7 | Technologies of solar collectors to produce electricity. Solar thermal plants. | X |  | no |  | 1.66 | 3.25 |
| 8 | 8 | Partial exam: Solar energy | X |  | no |  | 1.66 | 3.25 |
| 9 | 9 | Hydroelectric energy, facilities and applications | X |  | no |  | 1.66 | 3.25 |
| 10 | 10 | Wind energy, evaluation of the energy available in the wind and their possible uses | X |  | no |  | 1.66 | 3.25 |


| WEEKLY PLANNING |  |  |  |  |  |  |  |  |
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| $\begin{gathered} \mathrm{W} \\ \mathrm{E} \\ \mathrm{E} \\ \mathrm{~K} \end{gathered}$ | $\begin{aligned} & \mathrm{S} \\ & \mathrm{E} \\ & \mathrm{~S} \\ & \mathrm{~S} \\ & \mathrm{I} \\ & \mathrm{O} \\ & \mathrm{~N} \end{aligned}$ | DESCRIPTION | TEACHING <br> (mark X) |  | SPECIAL ROOM FOR SESSION (Computer class room, audio-visual class room) | WEEKLY PROGRAMMING FOR STUDENT |  |  |
|  |  |  | L E $C$ T U R E S | S E $M$ I N A R S |  | DESCRIPTION | $\begin{gathered} \text { CLASS HOURS } \\ (1,66=50+50 \mathrm{~min}) \end{gathered}$ | HOMEWORK <br> HOURS <br> (Max. Estim. $3,25 \mathrm{~h}$ ) |
| 11 | 11 | Lab 2: Performance of a Pelton microturbine |  |  | yes |  | 1.66 | 3.25 |
| 12 | 12 | Wind energy, technologies in use. | x |  | no | Lab department | 1.66 | 3.25 |
| 13 | 13 | Geothermal energy. Potential and applications | X |  | no |  | 1.66 | 3.25 |
| 14 | 14 | Bioenergy, biomass and biofuels. Types and applications | X |  | no |  | 1.66 | 3.25 |
|  | 15 |  |  |  |  |  | 1.66 | 3.25 |
|  |  |  |  |  |  | Subtotal 1 | 25 | 49 |
|  |  |  |  |  |  | Total 1 (Hours of class plus student homework) | 7 |  |



