## COURSE: ENGINEERING GRAPHICS

| DEGREE: BACHELOR IN ENERGY ENGINEERING | YEAR: 1 | TERM: 2 |
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| WEEKLY PLANNING |  |  |  |  |  |  |  |  |
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| $\begin{gathered} \text { W } \\ \text { E } \\ \text { E } \\ \text { K } \end{gathered}$ | $\begin{aligned} & \mathrm{S} \\ & \mathrm{E} \\ & \mathrm{~S} \\ & \mathrm{~S} \\ & \mathrm{I} \\ & \mathrm{O} \\ & \mathrm{~N} \end{aligned}$ | DESCRIPTION | TEACHING <br> (mark X) |  | SPECIAL ROOM <br> FOR SESSION <br> (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 | CLASS HOURS $(1,66=50+50$ <br> min) | HOMEWORK <br> HOURS <br> (Max. Estim. $6,5 \mathrm{~h}$ ) |
| 1 | 1 | INTRODUCTION TO TECHNICAL DRAWING AND REPRESENTATION SYSTEMS. NORMALIZATION | X |  | NO | Knowing different representation systems and their basic rules | 1,66 | 5,0 |
|  | 2 | SOLID EDGE ENVIROMENT. FIRST OPERATIONS |  | X | YES | Starting to work with a CAD program | 1,66 |  |
| 2 | 3 | ORTHOGRAPHIC PROJECTION (OP): BASICS | X |  | NO | Reviewing basic knowledge about Orthographic projection (OP) | 1,66 | 5,0 |
|  | 4 | BASIC EXERCISES ABOUT ORTHOGRAPHIC PROJECTION (OP) |  | X | NO | Realizing basic exercises about Orthographic projection | 1,66 |  |
| 3 | 5 | OP: REVOLUTION METHOD, FOLD LINE METHOD AND CHANGE OF PROJECTION PLANES. | X |  | NO | Learning how and when doing apply revolution method, fold line method and change of projection planes. | 1,66 | 5,0 |
|  | 6 | EXERCISES ABOUT OP: REVOLUTION METHOD, FOLD LINE METHOD AND CHANGE OF PROJECTION PLANES. |  | X | NO | Applying revolution method, fold line method and change of projection planes to solve geometric problems. | 1,66 |  |
| 4 | 7 | OP: DISTANCES AND ANGLES | X |  | NO | Learning to represent and measure distances and angles in OP | 1,66 | 5,0 |
|  | 8 | EXERCISES ABOUT OP: DISTANCES AND ANGLES |  | X | NO | Solving geometric problems about distances and angles | 1,66 |  |
|  | 9 | EXAM ABOUT OP | X |  | NO | Exam about OP concepts | 1,66 |  |


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| 5 | 10 | SOLID EDGE PART ENVIRONMENT |  | X | YES | Learning CAD operations to generate 3D parts | 1,66 | 6,5 |
| 6 | 11 | AXONOMETRIC SYSTEM | X |  | NO | Learning the bases of the axonometric system | 1,66 | 6,5 |
|  | 12 | AXONOMETRIC SYSTEM II |  | X | NO | Applying the axonometric system concepts to represent parts | 1,66 |  |
| 7 | 13 | VIEWS | X |  | NO | Applying the OP concepts to represent parts | 1,66 | 6,5 |
|  | 14 | EXERCISES ABOUT VIEWS |  | X | NO | Realizing exercises about representing parts | 1,66 |  |
| 8 | 15 | SECTIONS, CUTS AND BREAKS | X |  | NO | Applying the OP concepts to represent parts | 1,66 | 6,5 |
|  | 16 | EXERCISES ABOUT SECTIONS, CUTS AND BREAKS |  | X | NO | Realizing exercises about representing parts | 1,66 |  |
| 9 | 17 | DIMENSIONING AND REPRESENTATION I | X |  | NO | Learning the basic standards about dimensioning and representation | 1,66 | 6,5 |
|  | 18 | EXERCISES ABOUT DIMENSIONING I |  | X | NO | Applying the OP concepts to represent and dimension parts | 1,66 |  |
| 10 | 19 | DIMENSIONING AND REPRESENTATION II | X |  | NO | Learning the basic standards about dimensioning and representation | 1,66 | 6,5 |
|  | 20 | SOLID EDGE DRAFT ENVIROMENT. DIMENSIONING |  | X | YES | Learning to generate and dimension a draft with CAD | 1,66 |  |
| 11 | 21 | STANDARD PARTS | X |  | NO | Learning to identify the most usual standard parts | 1,66 | 6,5 |
|  | 22 | SOLID EDGE ASSEMBLY ENVIROMENT |  | X | YES | Learning to assembly parts with CAD | 1,66 |  |
| 12 | 23 | ASSEMBLIES | X |  | NO | Learning to realize and understand an assembly draft | 1,66 | 6,5 |
|  | 24 | EXERCISES OF ASSEMBLIES |  | X | NO | Practising to realize and understand an assembly draft | 1,66 |  |
|  | 25 | DETAIL DRAFT | X |  | NO | Learning to realize a detail drawing | 1,66 |  |


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|  |  |  | L E C T U R E S | S E $M$ I N A R R |  | DESCRIPTION | CLASS HOURS $(1,66=50+50$ $\min )$ | HOMEWORK HOURS (Max. Estim. 6,5h) |
| 13 | 26 | EXERCISES OF DETAIL DRAFTS |  | X | NO | Applying the theory to realice detail drawings | 1,66 | 6,5 |
| 14 | 27 | GEOMETRIC AND DIMENSIONAL TOLERANCES | X |  | NO | Learning the tolerance concept and how to calculate them | 1,66 |  |
|  | 28 | TOLERANCES APPLICATION. DESIGN ANALYSIS. |  | X | NO | Applying the concept and calculation of tolerances to design problems | 1,66 |  |
|  | 29 | CAD EXAM |  | X | YES | Exam about the used CAD program | 1,66 | 3,25 |
| Subtotal 1 |  |  |  |  |  |  | 48 | 88 |
| Total 1 (Hours of class plus student homework) |  |  |  |  |  |  | 136 |  |



TOTAL (Maximun 160 horas)

