

| COURSE: Electrical Technology | | |
|---------------------------------------|------------|-------------|
| DEGREE: Ing. Tecnologías Industriales | YEAR: 3th. | SEMESTER: 1 |

| | WEEKLY PROGRAMMING FOR THE STUDENTS | | | | | | | | |
|------|-------------------------------------|--|-------|-------|------------|----------|--|-------------|----------|
| WEEK | SESSIÓN | DESCRIPTION | GROUP | | LABORATORY | THAN ONE | WEEKLY WORK FOR THE STUDENT | | |
| | ÚN | | LARGE | SMALL | | PROF.? | DESCRIPTION | CLASS HOURS | HOMEWORK |
| 1 | 1 | Organization of the electrical system: technical and economic structures. | х | | | NO | | 1.66 | |
| 1 | 2 | Transformers. | | х | | NO | | 1.66 | |
| 2 | 3 | Organization of the electrical system: generation, transmission and distribution. | x | | | NO | Reading of the corresponding chapters in the proposed literature. | 1.66 | 7 |
| 2 | 4 | Synchronous machines. | | х | | NO | Proposed exercises solving. Participation in discussions and debates. | 1.66 | |
| 3 | 5 | Load estimation. | x | | | NO | Proposed exercises solving. Participation in discussions and debates. | 1.66 | 7 |
| 3 | 6 | Per-unit representation. | | х | | NO | Reading of the corresponding chapters in the proposed literature. | 1.66 | |

| 4 | 7 | Alternating current transmission lines: characteristics and models. | Х | | | NO | Reading of the corresponding chapters in the proposed literature. | 1.66 | 7 |
|----|----|---|---|---|------|----|---|------|---|
| 4 | 8 | Exercitations in per-unit calculations. | | х | | NO | Proposed exercises solving. Participation in discussions and debates. | 1.66 | |
| 5 | 9 | Direct current transmission lines: characteristics and models. | Х | | | NO | Proposed exercises solving. Participation in discussions and debates. Reading of the laboratory guide for the next laboratory. | 1.66 | 7 |
| 5 | 10 | Laboratory 1 | | | Lab. | NO | Reading of the corresponding chapters in the proposed literature. | 1.66 | |
| 6 | 11 | Short-circuit representation. | Х | | | NO | Reading of the corresponding chapters in the proposed literature. | 1.66 | 7 |
| 6 | 12 | Problem resolutions on transmission lines. | | х | | NO | Proposed exercises solving. Participation in discussions and debates. | 1.66 | |
| 7 | 13 | Short-circuit calculations. | Х | | | NO | Proposed exercises solving. Participation in discussions and debates. | 1.66 | 7 |
| 7 | 14 | Problem resolutions on direct current transmission lines. | | х | | NO | Proposed exercises solving. Participation in discussions and debates. | 1.66 | |
| 8 | 15 | Selection of electrical wires. | х | | | NO | Reading of the corresponding chapters in the proposed literature. | 1.66 | 7 |
| 8 | 16 | Short-circuit calculations. | | х | | NO | Proposed exercises solving. Participation in discussions and debates. | 1.66 | |
| 9 | 17 | Voltage drop calculations in special configurations. | х | | | NO | Reading of the laboratory guide for the next laboratory. | 1.66 | 7 |
| 9 | 18 | Laboratory 2. | | | Lab. | NO | Reading of the corresponding chapters in the proposed literature. | 1.66 | |
| 10 | 19 | Preliminaries about switchgears. | х | | | NO | Reading of the corresponding chapters in the proposed literature. | 1.66 | 7 |
| 10 | 20 | Problems of electrical wires selection. | | х | | NO | Proposed exercises solving. Participation in discussions and debates. | 1.66 | |
| 11 | 21 | Switchgears selection. | Х | | | NO | Proposed exercises solving. Participation in discussions and debates. | 1.66 | 7 |
| 11 | 22 | Problems of electrical wires selection. | | х | | NO | Proposed exercises solving. Participation in discussions and debates. | 1.66 | |
| 12 | 23 | Introduction to the electrical protection systems. | х | | | NO | Reading of the corresponding chapters in the proposed literature. Reading of the laboratory guide for the next laboratory. | 1.66 | 7 |

| 12 | 24 | Laboratory 3. | | | Lab. | NO | Reading of the corresponding chapters in the proposed literature. | 1.66 | |
|----------|----|--|-----------|-------|------|-------|--|-----------------|----------------|
| 13 | 25 | Selection of electrical protection de | evices. X | | | NO | Proposed exercises solving. Participation in discussions and debates. | 1.66 | 7 |
| 13 | 26 | Relays setting calculations. | | х | | NO | Proposed exercises solving. Participation in discussions and debates. | 1.66 | |
| 14 | 27 | Electrical risks, calculations. | x | | | NO | Reading of the corresponding chapters in the proposed literature. | 1.66 | 7 |
| 14 | 28 | Relays setting calculations. | | х | | NO | Proposed exercises solving. Participation in discussions and debates. | 1.66 | |
| 14 | 29 | Summary session. | | х | | NO | Proposed exercises solving. Participation in discussions and debates. | 1.66 | |
| | | | | | | | | | |
| | | | | | | | Subtotal 1 | 48.14 | 91 |
| | | Тс | otal 1 | | | | Subtotal 1 | 48.14 139.14 | I |
| 15 | | To Seminaries works. | otal 1 | T | | T | Subtotal 1 | | I |
| 15 16 | | | otal 1 | | | | Subtotal 1 | 139.14 | 1 |
| | | | | | | | Subtotal 1 | 139.14 | 1 |
| 16 | | Seminaries works. | | | | | Subtotal 1 | 139.14 | 1 |
| 16 17 | | Seminaries works. | | | | | Subtotal 1 | 139.14 | 1 |
| 16 17 | | Seminaries works. Preparation of the evaluations | | | | | | 139.14 | 1 30 |