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| <b>COURSE: Electronics Engineering Fundamentals</b> | <b>YEAR: 3º</b>  |
| <b>DEGREE: Bachelor in Aerospace Engineering</b>    | <b>TERM: 1st</b> |

| WEEKLY PLANNING |         |  |         |         |           |                                       |               |                |
|-----------------|---------|--|---------|---------|-----------|---------------------------------------|---------------|----------------|
| Week            | Session | Description  | Groups  |         | Location  | Weekly work for student               |               |                |
|                 |         |  | Lecture | Seminar |           | Description                           | Class hours   | Homework hours |
| 1               | 1       | Introduction to electronics.<br>Block 1: Voltage and current sources. Theorems (1) | X       |         | On-line   | Study theory. Prepare Lab session     | 1.67          | 3              |
|                 | 2       | LAB 1: Lab equipment. Voltage divider.   |         | X       | LAB       | Study theory. Solve proposed exercise | 1.67          |                |
| 2               | 3       | Block 1: Theorems (2). Passive components. Impedance                               | X       |         | On-line   | Study theory. Solve proposed exercise | 1.67          | 5              |
|                 | 4       | Block 1: First order filters. Frequency analysis. Bode                             |         | X       | Classroom | Study theory. Solve proposed exercise | 1.67          |                |
| 3               | 5       | Block 1: Circuit simulation  | X       |         | On-line   | Study theory. Solve proposed exercise | 1.67          | 6              |
|                 | 6       | Block 1: Exercises.  |         | X       | Classroom | Study theory. Solve proposed exercise | 1.67          |                |
| 4               | 7       | Block 1: Amplifiers  | X       |         | On-line   | Study theory. Solve proposed exercise | 1.67          | 6              |
|                 | 8       | Block 1: Exercises.  |         | X       | Classroom | Study theory. Solve proposed exercise | 1.67          |                |
| 5               | 9       | Block 1: Semiconductor devices fundamentals  | X       |         | On-line   | Study theory. Solve proposed exercise | 1.67          | 6              |
|                 | 10      | Block 1: Exercises.  |         | X       | Classroom | Study theory. Solve proposed exercise | 1.67          |                |
| 6               | 11      | Block 1: Sensors and actuators   | X       |         | On-line   | Study theory. Work on LAB 2           | 1.67          | 7              |
|                 | 12      | LAB 2: sensors and actuators   |         | X       | LAB       | Study theory. Solve proposed exercise | 1.67          |                |
| 7               | 13      | Block 2: Digital circuits fundamentals (1)   | X       |         | On-line   | Study theory. Solve proposed exercise | 1.67          | 6              |
|                 | 14      | Block 2: Digital circuits fundamentals (2)   |         | X       | Classroom | Study theory. Prepare mid-term exam   | 1.67          |                |
| 8               | 15      | Block 2: Digital implementation. Microprocessors                                   | X       |         | On-line   | Study theory. Prepare mid-term exam   | 1.67          | 7              |
|                 | 16      | Block 2: C programming language (1)  |         | X       | Classroom | Study theory. Solve proposed exercise | 1.67          |                |
| 9               | 17      | <b>Mid-term exam</b>   | X       |         | On-line   | Study theory. Solve proposed exercise | 1.67          | 6              |
|                 | 18      | Block 2: C programming language (2). GPIOs (1)                                     |         | X       | Classroom | Study theory. Solve proposed exercise | 1.67          |                |
| 10              | 19      | Block 2: GPIOs (2) and interrupts  | X       |         | On-line   | Study theory. Work on LAB 3           | 1.67          | 6              |
|                 | 20      | LAB 3: SW environment and GPIOs  |         | X       | Classroom | Study theory. Solve proposed exercise | 1.67          |                |
| 11              | 21      | Block 2: timers  | X       |         | On-line   | Study theory. Solve proposed exercise | 1.67          | 6              |
|                 | 22      | Block 2: Exercises   |         | X       | Classroom | Study theory. Solve proposed exercise | 1.67          |                |
| 12              | 23      | Block 2: ADC and DAC   | X       |         | On-line   | Study theory. Solve proposed exercise | 1.67          | 6              |
|                 | 24      | Block 2: Exercises   |         | X       | Classroom | Study theory. Solve proposed exercise | 1.67          |                |
| 13              | 25      | Block 2: Communication interfaces  | X       |         | On-line   | Study theory. Work on LAB 4           | 1.67          | 7              |
|                 | 26      | LAB 4  |         | X       | Classroom | Solve proposed exercise               | 1.67          |                |
| 14              | 27      | Exercises  | X       |         | On-line   | Solve proposed exercise               | 1.67          | 6              |
|                 | 28      | Exercises  |         | X       | Classroom | Solve proposed exercise               | 1.67          |                |
|                 | 29      | Exercises  | X       |         | Classroom | Solve proposed exercise               | 1.67          |                |
| SUBTOTAL        |         |  |         |         |           |                                       | 48.43         | 83             |
| 16-18           |         | Assessment   |         |         | Classroom |                                       | 3             | 15             |
| <b>TOTAL</b>    |         |  |         |         |           |                                       | <b>149.43</b> |                |