uc3m | Universidad Carlos III de Madrid

| COURSE: Programming | | |
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| DEGREE: Bachelor in Telecommunication Technologies Engineering | YEAR: 1 | TERM: 1 |

| WEEKLY PLANNING | | | | | | | | |
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| WEEK | SESSION | DESCRIPTION | GROUPS (mark X) | | SPECIAL ROOM FOR SESSION (Computer class room, audio-visual class room) | Indicate YES/NO If the session needs 2 teachers | WEEKLY PROGRAMMING FOR STUDENT | |
| | | | LECTURES | SEMINARS | | | DESCRIPTION | CLASS HOURS | HOMEWORK HOURS (Max. 7h week) |
| 1 | 1 | (Theory) Introduction Foundations of programming: computer architecture | X | | | NO | Configure the programming environment in the personal computer *Video of environment configuration* | 1,66 | 6,5 |
| | 2 | (Laboratory) Programming environment: configuration | | X | Computer classroom | NO | | 1,66 | |
| 2 | 3 | (Theory) Foundations of programming: the concept of algorithm and exercises | X | | | NO | Compile and execute the examples *Videos of algorithms, Java basics and data types* | 1,66 | 6,5 |
| | 4 | (Laboratory) Programming environment: configuration | | X | Computer classroom | NO | | 1,66 | |
| 3 | 5 | (Theory) Exercises on algorithms Java syntax: basics of the language • The Java class: concept and syntax | X | | | NO | Finalize programming exercises on data representation *One exercise evaluated individually* | 1,66 | 6,5 |
| | 6 | (Laboratory) Exercises on data representation | | X | Computer classroom | NO | | 1,66 | |
| 4 | 7 | (Theory) Exercises on algorithms | X | | | NO | Finalize programming exercises on data types and operators | 1,66 | 6,5 |

| | | | Theory | Lab | Classroom | Exam | | | |
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| | | Java syntax: basics of the language<br>• Primitive data types, operators, output, Math | | | | | *One exercise evaluated individually and cross-evaluation* | | |
| | 8 | (Laboratory)<br>Exercises on programming: data types and operators | | X | Computer classroom | NO | | 1,66 | |
| 5 | 9 | (Theory)<br>Java syntax: standard classes | X | | | NO | Finalize programming exercises on strings of characters<br>*Videos of conditional statements and looping statements*<br>Cross-evaluation and e-learning test | 1,66 | 6,5 |
| | 10 | (Laboratory)<br>Exercises on programming: strings of characters | | X | Computer classroom | NO | | 1,66 | |
| 6 | 11 | (Theory)<br>Java syntax: flow control<br>Exercises on algorithms | X | | | NO | Start programming exercises on loop sentences<br>*One exercise evaluated individually* | 1,66 | 6,5 |
| | 12 | (Laboratory)<br>Exercises on programming: flow control | | X | Computer classroom | NO | | 1,66 | |
| 7 | 13 | (Theory)<br>Java syntax: flow control | X | | | NO | Finalize programming exercises on loop sentences<br>*One exercise evaluated individually and cross-evaluation* | 1,66 | 6,5 |
| | 14 | (Laboratory)<br>Exercises on programming: flow control | | X | Computer classroom | NO | | 1,66 | |
| 8 | 15 | (Theory)<br>Java syntax: flow control | X | | | NO | Partial exam in class: control flow<br>*Cross-evaluation and e-learning test* | 1,66 | 6,5 |
| | 16 | (Laboratory)<br>Exam in class | | X | Computer classroom | SI | | 1,66 | |
| 9 | 17 | (Theory)<br>Java syntax: arrays<br>Exercises on programming: arrays | X | | | NO | Start programming exercises on arrays<br>*Videos of arrays and functions* | 1,66 | 6,5 |
| | 18 | (Laboratory)<br>Exercises on programming: arrays | | X | Computer classroom | NO | | 1,66 | |
| 10 | 19 | (Theory)<br>Exercises on programming: arrays | X | | | NO | Finalize programming exercises on arrays<br>*One exercise evaluated individually* | 1,66 | 6,5 |
| | 20 | (Laboratory)<br>Exercises on programming: arrays | | X | Computer classroom | NO | | 1,66 | |
| 11 | 21 | (Theory)<br>Exercises on programming: all | X | | | NO | Partial exam in class: arrays<br>*One exercise evaluated individually and cross-evaluation* | 1,66 | 6,5 |
| | 22 | (Laboratory)<br>Final Project: introduction | | X | Computer classroom | SI | | 1,66 | |
| 12 | 23 | (Theory)<br>Java syntax: functions<br>Exercises on programming: all | X | | | NO | Start with control methods<br>*Cross-evaluation and e-learning test* | 1,66 | 6,5 |
| | 24 | (Laboratory)<br>Final project: definition of control methods | | X | Computer classroom | NO | | 1,66 | |

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| 13 | 25 | (Theory) Exercises on programming: all | X | | | NO | Finalize control methods | 1,66 | 6,5 |
| | 26 | (Laboratory) Final project: definition of control methods | | X | Computer classroom | NO | | 1,66 | |
| 14 | 27 | (Theory) Exercises on programming: all | X | | | NO | Partial exam in class | 1,66 | 6,5 |
| | 28 | (Laboratory) Exam in class | | X | Computer classroom | SI | | 1,66 | |
| | 29 | Additional session (Laboratory) Final project: doubts and issues | | X | Computer classroom | SI | | 1,66 | 3,25 |
| | | | | | | | **Subtotal 1** | **48** | **94** |

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| **Total 1** *(Hours of class plus student homework hours between weeks 1-14)* | | 142 |

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| 15 | | Tutorials,handing in,etc | | | | | | 3,6 | - |
| 16 | | | | | | | | | |
| 17 | | Final exam | X | | | | Prepare the final exam of the course | 4 | 10 |
| 18 | | | | | | | | | |
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| **Total 2** *(Hours of class plus student homework hours between weeks 15-18)* | 18 |

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| **TOTAL** *(Total 1 + Total 2.* <u>*Maximum 180 hours*</u>*)* | **160** |