uc3m Universidad Carlos III de Madrid

Vicerrectorado de Estudios Apoyo a la docencia y gestión del grado

COURSE: PROGRAMMING

| DEGREE: ELECTRONIC INDUSTRIAL ENGINEERING AND AUTOMATIC | YEAR: 1ST | TERM: 1ST |
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| | | |

| | WEEKLY PLANNING | | | | | | | | | |
|-------------|-----------------------|---|--------------------------------------|---------------------------------|--|---|------------------------------------|--|--|--|
| | s | | TEACHING (mark X) | | SPECIAL ROOM | WEEKLY PROGRAMMING FOR STUDENT | | | | |
| W E K | E S I O N | DESCRIPTION | L E C T U R E S | S E I N A R S | FOR SESSION (Computer class room, audio-visual class room) | DESCRIPTION | CLASS HOURS (1,66=50+50 min) | HOMEWORK HOURS (Max. Estim. 6,5h) | | |
| 1 | 1 | Presentation. Basic Concepts. Algorithm, program, instructions, code lines | х | | | | 1,66 | 5,0 | | |
| | 2 | Basic Concepts, pseudocode, ordinograms | | х | computer | | 1,66 | | | |
| 2 | 3 | Structured Programming.C Language. C Program structure. Libraries. Syntax. Basic instructions. Data types. I/O Basic functions: scanf, printf | х | | | I/O basic examples | 1,66 | 5,0 | | |
| | 4 | Pseudocde and ordinogram exercises | | х | computer | Pseudocode and ordinogram examples | 1,66 | | | |
| - | 5 | I/O functions | Х | | | | 1,66 | 5.0 | | |
| 3 | 6 | Introduction to dev cpp compiler. i/O basic examples | | Х | computer | I/O examples | 1,66 | 5,0 | | |
| 4 | 7 | Control Structures: Selection. Conditions. Relational Operators. Arithmetic Operators. IF, IF ELSE, SWITCH sentences. | х | | | | 1,66 | 6,5 | | |
| | 8 | Selection Sentences Exercises | | Х | computer | Selection examples | 1,66 | | | |
| 5 | 9 | Control Structures: Iterations. Iterative sentences: WHILE. DO WHILE | х | | | | 1,66 | 65 | | |
| 5 | 10 | Iteravtive sentences exercises. Introduction to first deliverable (algorithms in C) | | х | computer | Iterative examples. Developing first deliverable. | 1,66 | 0,0 | | |
| | 11 | Control Structures: Iterations. Iterative sentences: FOR | Х | | | | 1,66 | | | |

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| W E K | E S I O N | | L C T U R E S | S E N A R S | FOR SESSION (Computer class room, audio-visual class room) | DESCRIPTION | CLASS HOURS (1,66=50+50 min) | HOMEWORK HOURS (Max. Estim. 6,5h) | | |
| 6 | 12 | FOR sentence examples. First deliverable | | х | computer | Iterative examples. Developing first deliverable. | 1,66 | 6,5 | | |
| 7 | 13 | C Functions: Local and global variables. Parameters. Return sentence. | х | | | | 1,66 | 6,5 | | |
| , | 14 | First deliver. Introduction to second deliverable (Functions) | | х | computer | Functions examples. Developing second deliverable. | 1,66 | | | |
| | 15 | First Continuous Evaluation Exam | Х | | | | 1,66 | 6,5 | | |
| 8 | 16 | Exam solution. Developing second deliverable. | | х | computer | Functions examples. Developing second deliverable. | 1,66 | | | |
| ٩ | 17 | C Functions: Value and reference parameters. Arrays: declaring and using. | х | | | | 1,66 | 65 | | |
| 5 | 18 | Functions examples. Developing second deliverable. | | х | computer | Functions examples. Developing second deliverable. | 1,66 | 0,5 | | |
| 10 | 19 | Vectors. Bidimensional arrays. Strings. String.h library. Arrays in functions. | х | | | | 1,66 | 65 | | |
| | 20 | Second deliver. Arrays examples.Introduction to third deliverable (arrays) | | х | computer | Arrays examples. Developing third deliverable. | 1,66 | 0,5 | | |
| | 21 | Data structures. Access. Structs in functions. | Х | | | | 1,66 | | | |
| 11 | 22 | Structs examples. Developing third deliverable. | | х | computer | Structs examples. Developing third deliverable. | 1,66 | 6,5 | | |
| 12 | 23 | Arrays of structs. External storing. Files | Х | | | | 1,66 | | | |
| | 24 | File examples. Developing third deliverable. | | х | computer | Files examples. Developing third deliverable. | 1,66 | 6,5 | | |
| 13 | 25 | Second Continuous Evaluation Exam | Х | | | | 1,66 | 65 | | |
| | 26 | Third deliver. Introduction to fourth deliverable (Structs) | | Х | computer | Developing fourth deliverable. | 1,66 | 0,0 | | |
| 14 | 27 | Pointers | Х | | | | 1,66 | | | |
| | 28 | Pointers examples. Developing fourth deliverable. | | Х | computer | Pointers examples. Developing fourth deliverable. | 1,66 | 6,5 | | |
| | 29 | Developing fourth deliverable. | | Х | computer | Developing fourth deliverable. | 1,66 | 3,25 | | |

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|---|---|-------------|--------------------------------------|----------------------------|--|--------------------------------|------------------------------------|--|--|--|
| S E E S E I K O N | s | DESCRIPTION | TEACHING (mark X) | | | WEEKLY PROGRAMMING FOR STUDENT | | | | |
| | E S I O N | | L E C T U R E S | S E N A R S | FOR SESSION (Computer class room, audio-visual class room) | DESCRIPTION | CLASS HOURS (1,66=50+50 min) | HOMEWORK HOURS (Max. Estim. 6,5h) | | |
| Subtotal 1 | | | | | | | 48 | 90 | | |
| | Total 1 (Hours of class plus student homework) | | | | | | | 38 | | |

| 15 | | Tutorials, handing in, etc | | | | Deliverables exam | 3,6 | - |
|----|---|----------------------------|--|--|--|-------------------|-----|----|
| 16 | | | | | | | | |
| 17 | | Assessment | | | | | 4 | 10 |
| 18 | | | | | | | | |
| | Subtotal 2 | | | | | | 8 | 10 |
| | Total 2 (Hours of class plus student homework) | | | | | | | .8 |

TOTAL (<u>Maximun 160 horas</u>)

155