Department of Informatics UoWM - Programme for Undergraduate Studies 2022-2023

SEMESTER A

1st Semester Courses	Type	ECTS	Hours per week
Introduction to Computers	C	5	4
Introduction to Computer Programming	C	5	4
Linear Algebra	C	5	4
Electromagnetism	C	5	4
Electronics	C	5	4
English Terminology I	C	5	4
TOTAL		30	24

SEMESTER B

2nd Semester Courses	Type	ECTS	Hours per week
Operating Systems	C	5	4
Data Structures	C	5	4
Mathematical Analysis I	C	5	4
Discrete Mathematics	C	5	4
Combinatorial Digital Electronics	C	5	4
English Terminology II	C	5	4
TOTAL		30	24

SEMESTER C

3rd Semester Courses	Type	ECTS	Hours per week
Object-Oriented Computer Programming with C++	C	5	4
Compilers	C	5	4
Numerical Analysis	C	5	4
Probability-Statistics	C	5	4
Mathematical Analysis II	C	5	4
Sequential Digital Electronics	C	5	4
TOTAL		30	24

SEMESTER D

4th Semester Courses	Type	ECTS	Hours per week
Computer Networks	C	6	4
Databases	C	6	4
Microprocessors - Microcontrollers I	C	6	4
Computer Architecture	C	6	4
Object-Oriented Application Development with JAVA	C	6	4
TOTAL		30	24

SEMESTER E

5th Semester Courses	Type	ECTS	Hours per week
Distributed Systems	C	5	4
Web Programming	C	5	4
Software Technology	C	5	4
Computer Network Design	C	5	4
Special Programming Topics	C	5	4
Applied Mathematics	C	5	4
TOTAL		30	24

SEMESTER F

6th Semester Courses	Type	ECTS	Hours per week
Internet Applications	C	6	4
Multimedia Technology	C	6	4
Telecommunications	C	6	4
Elective Courses (2 courses)			
Design of Digital Systems with VHDL	EC	6	4
Wireless Mobile Communications	EC	6	4
Computer Graphics	EC	6	4
Visual Programming	EC	6	4
Special Network Topics I	EC	6	4
Numerical Analysis Topics	EC	6	4
TOTAL		30	24

SEMESTER G

7th Semester Courses	Type	ECTS	Hours per week
Research Methodology and Ethics	C	6	4
Computer Systems Security	C	6	4
Advanced Database Topics	C	6	4
Elective Courses (2 courses)			
High Speed Networks	EC	6	4
Design of Embedded Systems with VLSI	EC	6	4
Internet Technologies and Mobile Computing	EC	6	4
Cloud Computing	EC	6	4
Computability and Complexity	EC	6	4
Advanced Architectures	EC	6	4
Special Topics in Networks II	EC	6	4
TOTAL		30	24

SEMESTER H

8th Semester Courses	Type	ECTS	Hours per week
Selection of 5 Courses or Selection of 3 Courses and Dissertation			
Digital Signal Processing	EC	6	4
Artificial Intelligence – Logic Programming	EC	6	4
Microprocessors - Microcontrollers II	EC	6	4
Data Mining	EC	6	4
Network Security	EC	6	4
Waiting Systems	EC	6	4
Operation Research	EC	6	4
Dissertation	EC	12	
TOTAL		30	20

SEMESTER E or F or G or H

Internship	O	6	

C : Compulsory
EC : Elective Compulsory
O : Optional

In order to obtain the degree, the student is required to successfully attend 44 courses or 42 courses and to successfully prepare a Dissertation and therefore accumulate a total of 240 ECTS.