



Arab Academy for Science and Technology & Maritime Transport
College of Computing and Information Technology
Department of Computer Science, Cairo

University/Academy: Arab Academy for Science and Technology & Maritime Transport
Faculty/Institute: College of Computing and Information Technology
Program:CS

Course title	Embedded systems
Course code	CS 427

Form no. (11A) Knowledge and skills matrix for a course

Course content	Week study	Knowledge	Intellectual skills	Professional skills	General skills
Introduction - Characteristics of Embedded Systems	1	K16, K19	I13	P18	G1
Embedded C Fundamentals	2	K13, K19	I13	P18, P19	G7
Programming with Embedded C	3	K13, K19	I13	P14, P18, P19	G7
Introduction to OpenMP	4	K13, K19	I17	P19	G7
Synchronization	5	K13	I17	P18	G7
Data environment	6	K13	I17	P18	G7
Memory model	7	K13	I17	P18	G7

Course content	Week study	Knowledge	Intellectual skills	Professional skills	General skills
Open MP Project Delivery	8	K16	I10, I13, I19	P14, P18	G2
Introduction to MPI	9	K13, K19	I17	P19	G7
Programming with MPI – Part 1	10	K13	I17	P18	G7
Programming with MPI – Part 2	11	K13	I17	P18	G7
MPI Project Delivery	12	K16	I10, I13, I19	P14, P18	G2
Hybrid systems (MPI- Open MP - MPI) – Part 1	13	K13, K19	I17	P19	G7
Hybrid systems (MPI- Open MP - MPI) – Part 2	14	K13, K19	I17	P19	G7
Hybrid Project Delivery	15	K16	I10, I13, I19	P14, P18	G2

Course Instructor:

Head of Department:

Program Manager: