Universidad Carlos III de Madrid
www.uc3m.es

COURSE: Elements of Critical Software		
MASTER: Master in Aeronautical Engineering	YEAR: 1st	TERM: 2nd

WEEKLY PLANNING								
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	• Elements of Critical Software Introduction.
		 • Introduction to RTCA DO-178B.
			X			Yes	• Reading the reference material:
							    o Practice Description.
							    o Subject Slides.
							 • Study and personal work.
								1,67	2

2	2	• Introduction to RTCA DO-178B - Continuation.
		 • Introduction to RTCA DO-178C.
			X	X		No	• Reading the reference material:
							    o Practice Description.
							    o Subject Slides.
							 • Study and personal work.
								1,67	2

3	3	• SW Architectures Description. IMA.
		 • Real-Time Operating Systems.
		 • IMA Application Exercise.
			X	X		No	• Reading the reference material:
							    o Practice Description.
							    o Subject Slides.
							 Study and personal work.
								1,67	2

4	4	• SW Requirements Management Practice		X	INF Lab	Yes	• Reading the reference material:
							  ○ Practice Description.
							  ○ Subject Slides.
							Study and personal work.
								1,67	2

5	5	• SW Design	X	X		No	• Reading the reference material:
							  ○ Practice Description.
							  ○ Subject Slides.
							• Study and personal work.
								1,67	2

6	6	• SW Design Practice I.		X	INF Lab	Yes	• Reading the reference material:
							  ○ Practice Description.
							  ○ Subject Slides.
							• Study and personal work.
								1,67	2

7	7	• SW Design Practice II.
		• SW Design Case Study Exercise
				X	INF Lab	Yes	• Reading the reference material:
							  ○ Practice Description.
							  ○ Subject Slides.
							• Study and personal work.
								1,67	2

8	8	• Partial Exam.
		• SW Implementation. Theory & Practice I.
				X	INF Lab	Yes	• Reading the reference material:
							  ○ Practice Description.
							  ○ Subject Slides.
							• Study and personal work.
								1,67	2

9	9	• SW Implementation. Theory & Practice II.		X	INF Lab	Yes	• Reading the reference material:
							  ○ Practice Description.
							  ○ Subject Slides.
							• Study and personal work.
								1,67	2

10	10	• SW Implementation. Theory & Practice III.		X	INF Lab	Yes	• Reading the reference material:
							  ○ Practice Description.
							  ○ Subject Slides.
							• Study and personal work.
								1,67	2

11	11	• SW Implementation. Theory & Practice IV.		X	INF Lab	Yes	• Reading the reference material:
							  ○ Practice Description.
							  ○ Subject Slides.
							• Study and personal work.
								1,67	2

12	12	• SW Implementation Partial Exam (practice)
		• SW Implementation. Theory & Practice V.
				X	INF Lab	Yes	• Reading the reference material:
							  o Practice Description.
							  o Subject Slides.
							• Study and personal work.
								1,67	2

13	13	• SW Verification.	X	X		No	• Reading the reference material:
							  o Practice Description.
							  o Subject Slides.
							• Study and personal work.
								1,67	2

14	14	• Airborne SW Verification Practice.
		• SW verification Cases Study Exercise
				X	Avionics Lab	Yes	• Reading the reference material:
							  o Practice Description.
							  o Subject Slides.
							• Study and personal work.
								1,67	2

		Subtotal 1						**23,38**	**28**
		Total 1 *(Hours of class plus student homework hours between weeks 1-7)*						51,38	

8		Tutorials, handing in, etc							
9		Assessment Ordinary – Extraordinary						3	21
10									
11									
		Subtotal 2						**3**	**21**
		Total 2 *(Hours of class plus student homework hours between weeks 8-11)*						24	

TOTAL *(Total 1 + Total 2. Maximum 90 horas)*	**75,38**

(*) In EPS are given an additional 6 hours of completary teaching along two sessions.