COURSE: PROPULSION SYSTEMS

DEGREE: AEROSPACE ENGINEERING	**YEAR: 4th**	**TERM: 1st**

WEEKLY PLANNING

WEEK	SESSION	DESCRIPTION	TYPE		COMMENTS	STUDENT WEEKLY PROGRAMME		
			LECTURE	SEMINAR		DESCRIPTION	CLASS HOURS	HOMEWORK HOURS
1	1	Introduction to the course, recalls of propulsion. Propeller characteristics	X		Fri Sep 8th	Reading corresponding chapters	1,6	
1	2	Geometry and characteristics of propellers Propeller sets and variable pitch propellers		X	Tue Sep 12th	Solve the proposed exercises	1,6	5
2	3	Problems	X		Thu Sep 14th 19:00-21:00	Reading corresponding chapters	1,6	
2	4	Propeller Blade Element theory		X	Fri Sep 15th	Solve the proposed exercises	1,6	5
3	5	Propeller Momentum theory I	X		Tue Sep 19th	Reading corresponding chapters	1,6	
3	6	Propeller Momentum theory II		X	Fri Sep 22nd	Solve the proposed exercises	1,6	5
4	7	Problems	X		Tue Sep 26th	Reading corresponding chapters	1,6	
4	8	The two theories combined, propeller testing and operation, propeller compressibility losses		X	Fri Sep 29th	Solve the proposed exercises	1,6	5
5	9	Propeller noise	X		Tue Oct 3rd	Reading corresponding chapters	1,6	
5	10	Introduction to reciprocating engines-Application to aviation		X	Fri Oct 6thth	Solve the proposed exercises	1,6	7
6	11	Recalls of thermodynamic cycles	X		Tue Oct 10th	Solve the proposed exercises	1,6	
6	12	Air capacity and similarity		X	Tue Oct 17th	Reading corresponding chapters	1,6	7
7	13	Propellers Lab	X		Fri Oct 20th	*Lab session in Computer class:* Write a code for BEMT	1,6	
7	14	Problems		X	Tue Oct 24th	Solve the proposed exercises	1,6	7
8	15	Turbochargers and heat transfer	X		Fri Oct 27th	Reading corresponding chapters	1,6	
8	16	Combustion		X	Tue Oct 31st	Reading corresponding chapter	1,6	5
9	17	Problems	X		Fri Nov 3rd	Solve the proposed exercises	1,6	
9	18	Mixture requirements	X		Tue Nov 7th	Reading corresponding chapters	1,6	5

10	19	Propellers Lab 2		X	Fri Nov 10th	*Lab session in Computer class:* Optimize the propeller design done in class	1,6	
10	20	Kinematic, dynamics and engine balance	X		Tue Nov 14th	Reading corresponding chapters	1,6	7
11	21	Turboprop, thermodynamic cycle and implementation		X	Fri Nov 17th	Reading corresponding chapters	1,6	
11	22	Problems and Turboprops and regional aviation- Propfan		X	Tue Nov 21st	Solve the proposed exercises	1,6	7
12	23	Propeller testing	X		Fri Nov 24th	*Propulsion lab class*: Analyze data and prepare a presentation	1,6	
12	24	QUIZ	X		Tue Nov 28th	QUIZ	1,6	7
13	25	Rotordynamics	X		Fri Dec 1st	Reading corresponding chapters	1,6	
13	26	Disk Design		X	Tue Dec 5th	Reading corresponding chapters	1,6	7
14	27	Presentation of laboratory activities	X		Tue Dec 12th normal time plus 19:00-21:00	Prepare a presentation	1,6	
14	28	Rotor dynamics problem		X	Fri Dec 15th	Solve the proposed exercises	1,6	
11	29	Visit to the Air Force Museum		X	TBD	Analyze the differente engine types present in the museum	1,6	5
						Subtotal 1	**48.33**	**84**
						Total 1	132,33	

15		Tutorials, handing in, etc					5	
16		Assessment					3	15
17								
18								
						Subtotal 2	**8**	**15**
						Total 2	**23**	
						TOTAL	**155,33**	