



COURSE: MATERIALS FOR ENERGY PRODUCTION AND STORAGE

DEGREE: BACHELOR IN ENGINEERING OF INDUSTRIAL TECHNOLOGIES

YEAR: 4th

TERM: 2st

WEEKLY PLANNING									
WEEK	SESSION	DESCRIPTION	GROUPS		SPECIAL ROOM FOR SESSION (Computer class room, audio-visual class room)	Indicate YES/NO If the session needs 2 teachers: Maximum 4 sessions	WEEKLY PROGRAMMING FOR STUDENT		
			LECTURE	SEMINAR			DESCRIPTION	CLASS HOURS	HOMEWORK HOURS Maximum 7 h
1	1	Introduction					Study of recommended references and material used by the teacher and solving exercises.	1,66	4
2	2	Fundamentals of electrochemistry					Study of recommended references and material used by the teacher and solving exercises.	1,66	4
3	3	Fuel Cells I.					Study of recommended references and material used by the teacher and solving exercises.	1,66	4
4	4	Fuel Cells II.					Study of recommended references and material used by the teacher and solving exercises.	1,66	4

5	5	Capacitors, Supercapacitors and Piezoelectrics.					Study of recommended references and material used by the teacher and solving exercises.	1,66	4
6	6	Superconductors					Study of recommended references and material used by the teacher and solving exercises.	1,66	4
7	7	Magnetic Materials					Study of recommended references and material used by the teacher and solving exercises.	1,66	4
8	8	Battery Basics					Study of recommended references and material used by the teacher and solving exercises.	1,66	4
9	9	Batteries I					Study of recommended references and material used by the teacher and solving exercises.	1,66	4
10	10	Batteries II					Study of recommended references and material used by the teacher and solving exercises.	1,66	4
11	11	Phase Change Materials					Study of recommended references and material used by the teacher and solving exercises.	1,66	4
12	12	Characterization Techniques of Fuel cells.			Laboratory		Report on results associated with practical cases.	1,66	4
13	13	Characterization Techniques of Batteries.			Laboratory		Report on results associated with practical cases.	1,66	4
14	14	Team work					Preparation of team work and exposure.	1,66	6

Subtotal 1 **23,33** **58**

Total 1 (Presential and working hours of the student in weeks 1-14) **81.33**

15		Others							
16		Preparing exam and exam							
17								3	4
18									

	Subtotal 2	3	4
Total 2 (<i>Presential and working hours of the student in weeks 15-18</i>)		7	
TOTAL (<i>Total 1 + Total 2. Maximum 180 hours</i>)		88,33	