C O U R S E G U I D E – s h o r t f o r m

Academic year .2014-2015.....

Course name[1]	**Air-conditioning**					Course code		410.DO.DS -2	
Course type[2]	DS	Category[3]	DO	Year of study	IV	Semester	7	Number of credit points	6

Faculty	Mechanics	Number of teaching and learning hours[4]					
Field	Mechanical Engineering	Total	L	T	LB	P	IS
Specialization	Mechanical Engineering	70	42	28	-	-	-

Pre-requisites from the curriculum[5]	Compulsory	Thermal Termotehnica and facilities
	Recommended	Technical drawing and infografica

General objective [6]	Knowledge of systems principles for the distribution of air that are in close liaison with human comfort; basic skills training (cognitive- process-orientated and experimental) functions of the components of the air distribution system, including relevant equipment and auxiliary units
Specific objectives[7]	• Acquiring theoretical knowledge base in the field of ventilation and air-conditioning • training basic skills (cognitive- process-orientated and experimental) on operation of the various systems and facilities of air conditioning; • training basic skills (cognitive- process-orientated and experimental) on operation of the various systems and facilities of air conditioning; • acquisition by students of thorough knowledge of the methods of analysis specific industrial air conditioning, the processes that take place in equipment and air conditioning installations, the ways to render the performance of the equipment and facilities of air conditioning …
Course description[8]	Course; Transmission of heat in building structures and measuring moisture; processes of conditioning air and diagram psihrometrica; overview of air-conditioning systems; establish parameters required to ensure thermal comfort. The establishment external air parameters; calculation heat gains permanent, the calculation of the heat loss through the building; the calculation of the summer heat load (load of cooling); systems of ventilation; calculation of the air flow for ventilation; dealing with complex central air conditioning; components of networks for air; fans; and the water, pipes and pump; batteries for heating the air. Batteries for cooling the air; chambers of air treatment with water, filters and separators of dust; Adjusting air conditioning installations. Noise suppression and vibration in air conditioning installations. Seminar: Characteristic Measures of wet air;; Equipment and methods for the determination of air's moisture. The mixture of two air flow. The mixing chamber. Determination of the coefficient of the spray pattern. The room air treatment with water. Simple processes of heating and cooling of the air. Heating batteries, respectively air cooling. Determination of status blown air to a minimum load and representation psihrometrica processes on the strip. Feasibility Analysis carried out in a single process with a battery of cooling.practical method for achieving a process with only one battery of cooling.

Assessment			Schedule[9]	Percentage of the final grade (minimum grade)[10]
Continuous assessment	Class tests along the semester		-	-
	Activity during tutorials/laboratory works/projects/practical work		Week 1-Week 14	50 %
	Assignments		-	-
Final assessment	Final assessment form[11]	Colloquium	Week 14	50 %
	Examination procedures and conditions: 1. ; tasks ; working conditions ; percent of the final grade % 2. ; tasks ; working conditions ; percent of the final grade % 3.			

Course organizer	s.l.dr.ing. Teona Lozonschi	
Teaching assistants	s.l.dr.ing. Teona Lozonschi	

[1]Course name from the curriculum
[2] DF – fundamental, DID – in the field, DS – specialty, DC – complementary (from the curriculum)
[3] DI – imposed, DO –optional, DL – facultative (from the curriculum)
[4] Points 3.8, 3.5, 3.6a,b,c, 3.7 from the Course guide – extended form (L-lecture, T-tutorial, LB-laboratory works, P-project, IS-individual study)
[5] According to 4.1 – Pre-requisites - from the Course guide – extended form
[6] According to 7.1 from the Course guide – extended form
[7] According to 7.2 from the Course guide – extended form
[8] Short description of the course, according to point 8 from the Course guide – extended form
[9] For continuous assessment: weeks 1 – 14, for final assessment – colloquium: week 14, for final assessment-exam: exam period
[10] A minimum grade might be imposed for some assessment stages
[11] Exam or colloquium