

**DEGREE IN ENGINEERING TECHNOLOGY IN MINES AND ENERGY- CIVIL ENGINEERING**

YEAR	SEMESTER	SUBJECT	CREDITS	MODULE	KIND OF SUBJECT		
1	1	Graphic Expression I	6	Basic	Basic Education		
		Physical Foundations of Engineering I	6	Basic	Basic Education		
		Topography, Cartography and Photogrammetry	6	Common	Obligatory		
		Mathematical Foundations of Engineering I	6	Basic	Basic Education		
		Chemistry	6	Basic	Basic Education		
	2	2	Graphic Expression II	6	Basic	Basic Education	
			Physical Foundations of Engineering II	6	Basic	Basic Education	
			Computing	6	Basic	Basic Education	
			Mathematical Foundations of Engineering II	6	Basic	Basic Education	
			Geology	6	Basic	Basic Education	
2	1	Technical Mechanics	3	Common	Obligatory		
		Mineralogy and Petrology	3	Complementary	Obligatory		
		Thermotechnics	6	Common	Obligatory		
		Electrical engineering I	6	Common	Obligatory		
		Mathematical Foundations of Engineering III	6	Common	Obligatory		
	2	4	Business	6	Basic	Basic Education	
			Strength of the materials	6	Common	Obligatory	
			Environmental impact	3	Common	Obligatory	
			Geotechnical	6	Common	Obligatory	
			Hydrology	6	Common	Obligatory	
3	1	Hydraulic	9	Common	Obligatory		
		Construction materials	9	Common	Obligatory		
		Calculation of structures	6	Common	Obligatory		
		Sanitary engineering	9	Specified	Obligatory		
		Roads	6	Complementary	Obligatory		
	2	6	Electrical engineering II	6	Specified	Obligatory	
			Hydrogeology	6	Complementary	Obligatory	
			Exploration Geophysics and Geochemistry	6	Complementary	Obligatory	
			Drillings	6	Complementary	Obligatory	
			Structures technology	6	Common	Obligatory	
4	1	Statistic	6	Basic	Basic Education		
		Legislation	3	Common	Obligatory		
		Basic operations in process engineering	6	Specified	Obligatory		
		Technology of Fuels and Combustion	4.5	Specified	Obligatory		
		Minerals reservoirs	4.5	Complementary	Obligatory		
	2	8	Explosives	6	Specified	Obligatory	
			Tillage and Underground Works I	6	Complementary	Obligatory	
			Markets, Logistics and Distribution of Electrical Energy & Fuels	3	Specified	Obligatory	
			Nuclear engineering	4.5	Specified	Obligatory	
			Treatment Plants and Manufacturing	4.5	Complementary	Obligatory	
5	1	Hydraulic works and facilities	6	Specified	Obligatory		
		Urban services	6	Specified	Obligatory		
		Environmental engineering	3	Common	Obligatory		
		Projects	3	Common	Obligatory		
		Power generation plant	6	Specified	Obligatory		
	2	10	Renewable energy	6	Specified	Obligatory	
			Tillage and Underground Works II	6	Complementary	Obligatory	
			Modelization reservoir	3	Complementary	Obligatory	
			Optative I	3	Optative	Optative	
			Engineering work	3	Common	Obligatory	
6	1	Oil Refining, Petrochemicals and Carbochemical	6	Specified	Obligatory		
		Planning and management of hydraulic resources	9	Specified	Obligatory		
		Measurement and valuation of work organization	3	Common	Obligatory		
		Final Project. Mines and Energy	12	F.P	F.P		
		Urbanism and Planning	6	Complementary	Obligatory		
		Railways	3	Complementary	Obligatory		
6	1	Transportation	6	Complementary	Obligatory		
		Fluvial hydraulics	3	Specified	Obligatory		
		Optative II	3	Optative	Optative		
		Final Project. Civil	12	F.P	FP		
		TOTAL CREDITS			336		

<b>OPTATIVE SUBJECTS</b>	<b>CREDITS</b>
Geological Mapping of Engineering Projects	3
Mathematical Modelling in Engineering	3
Expansion of Geotechnical	3
English	3