

**The program of studies for obtaining a Master's degree in the field of "Sciences and Technologies"
specializing in "Transport Engineering" with a focus on "Transport and Distribution of Hydrocarbons."**

Semester 1

Teaching Unit	Subjects	Credits	Coefficients	Weekly Hour Volume			Semester Hour Volume (15 weeks)	Supplementary Work in Consultation (15 weeks)	Evaluation Method	
	Title			Course	DW	PW			Continuous Assessment	Exam
Fundamental Unit Code : UEF 1.1.1 Crédits : 10 Coefficients : 6	Fluid Dynamics	5	3	2.25h	1.5h		56.25h	60.00h	40%	60%
	Transportation of hydrocarbons by pipelines	5	3	2.25h	1.5h		56.25h	60.00h	40%	60%
UE Fondamentale Code : UEF 1.1.2 Credits: 8 Coefficients: 4	Gas Dynamics	4	2	1.5h	1.5h		45.00h	50.00h	40%	60%
	Transfer Phenomena	4	2	1.5h	1.5h		45.00h	50.00h	40%	60%
Methodological Unit Code : UEM 1.1 Credits: 9 Coefficients: 5	Non-Newtonian Fluids	2	1	1.5h			22.50h	22.50h		100%
	Two-Phase Flow	2	1	1.5h			22.50h	22.50h		100%
	Applied Numerical Methods	4	2	1.5h	1.5h		45.00h	45.00h	40%	60%
	Properties of Hydrocarbons	1	1	1h			15.00h	17.50h		100%
Discovery Unit Code : UED 1.1 Credits: 2 Coefficients: 2	Specialty Simulation Software	2	2			3h	45.00h	45.00h	100%	
Transversal Unit Code : UET 1.1 Credits: 1 Coefficients: 1	Applied English	1	1	1.5h			22.5h	2.5h		100%
Total Semester 1		30	18	14.5h	7.5h	3h	375h	375h		

Semester 2

Teaching Unit	Subjects	Credits	Coefficients	Weekly Hour Volume			Semester Hour Volume (15 weeks)	Supplementary Work in Consultation (15 weeks)	Evaluation Method	
	Title			Course	DW	PW			Continuous Assessment	Exam
Fundamental Unit Code : UEF 1.2.1 Crédits : 10 Coefficients : 6	Natural Gas Transportation Networks	5	3	2.25h	1.5h		56.25h	60.00h	40%	60%
	Pumping and Compression Equipment Technology	5	3	2.25h	1.5h		56.25h	60.00h	40%	60%
UE Fondamentale Code : UEF 1.2.2 Credits: 8 Coefficients: 4	Calculation of Reservoirs and Pressurized Enclosures	4	2	1.5h	1.5h		45.00h	50.00h	40%	60%
	Transient Regime in Hydrocarbon Transportation	4	2	1.5h	1.5h		45.00h	50.00h	40%	60%
Methodological Unit Code : UEM 1.2 Credits: 9 Coefficients: 5	Technology of Storage Parks and Terminals	2	1	1.5h			22.50h	22.50h		100%
	Hydrocarbon Metering Techniques	3	2	1.5h	1h		37.50h	37.50h	40%	60%
	Electrical Equipment	3	1	1.5h		1.5h/15	33.75h	33.75h	40%	60%
	Pumping Equipment	1	1			1.5h/15	11.25h	11.25h	100%	
Discovery Unit Code : UED 1.2 Credits: 2 Coefficients: 2	Automatic Regulation	2	2	1.5h	1.5h		45.00h	47.5h	40%	60%
Transversal Unit Code : UET 1.2 Credits: 1 Coefficients: 1	Safety, Health, Environment	1	1	1.5h			22.50h	2.5h		100%
Total Semester 2		30	18	15h00	8.5h	1.5h	375h00	375h00		

Semester 3

Teaching Unit	Subjects	Credits	Coefficients	Weekly Hour Volume			Weekly Hour Volume	Semester Hour Volume (15 weeks)	Evaluation Method	
	Title			Course	DW	PW			Continuous Assessment	Exam
Fundamental Unit Code : UEF 2.1.1 Crédits : 10 Coefficients : 6	Design and Construction of Pipelines	5	3	2.25h	1.5h		56.25h	60.00h	40%	60%
	LNG/LPG Technology	5	3	2.25h	1.5h		56.25h	60.00h	40%	60%
UE Fondamentale Code : UEF 1.2.2 Credits: 8 Coefficients: 4	Surface Treatment of Hydrocarbons	4	2	1.5h	1.5h		45.00h	50.00h	40%	60%
	Simulation of Natural Gas Transport	4	2	1.5h	1.5h		45.00h	50.00h	40%	60%
Methodological Unit Code : UEM 2.1 Credits: 9 Coefficients: 5	Hydrothermal Equipment in Transportation	4	2	1.5h	1.5h		45.00h	47.50h	40%	60%
	Maintenance and Rehabilitation of Pipelines	2	1	1.5h			22.50h	22.5h		100%
	Corrosion Control and Pipeline Integrity Management	2	1	1.5h			22.50h	22.5h		100%
	Applied Petroleum Economics	1	1	1h			15.00h	15.00h		100%
Discovery Unit Code : UED 2.1 Credits: 2 Coefficients: 2	Operational Research	2	2	1.5h	1.5h		45.00h	45.00h	40%	60%
Transversal Unit Code : UET 2.1 Credits: 1 Coefficients: 1	Introduction to Innovation Management	1	1	1.5h			22.50h	2.5h		100%
Total Semester 3		30	18	15h	9h	0h	375h	375h		

Semester 4

Internship in a company validated by a thesis and a defense.

	WHV	Coeff	Credits
Personal Work	550	09	18
Internship in a company	100	04	06
Seminars	50	02	03
Other (Supervision)	50	02	03
Total Semester 4	750	17	30

this table is for informational purposes only

Evaluation of the Master's Final Project

- Scientific value (Jury's assessment) /6
- Thesis writing (Jury's assessment) /4
- Presentation and response to questions (Jury's assessment) /4
- Supervisor's assessment /3
- Presentation of the internship report (Jury's assessment) /3