

Academic Master's Degree: Instrumentation

1st year

Fall Semester

Course	Credits	Coefficient	weekly time load			Time load/semester (15 weeks)	Additional Work in Consultation (15 weeks)	Evaluation mode	
			Lectures	DW	PW			Continuous Assessment Exam	Exam
Instrumentation Electronics	6	3	3h00	1h30		67h30	82h30	40%	60%
Sensors in Industrial Instrumentation	4	2	1h30	1h30		45h00	55h00	40%	60%
Advanced Signal Processing	4	2	1h30	1h30		45h00	55h00	40%	60%
Industrial Metrology	4	2	1h30	1h30		45h00	55h00	40%	60%
Instrumentation Electronics Lab	2	1			1h30	22h30	27h30	100%	
Sensors in Industrial Instrumentation Lab	2	1			1h30	22h30	27h30	100%	
Advanced Signal Processing Lab / Industrial Metrology Lab	2	1			1h30	22h30	27h30	100%	
Object-Oriented Programming	3	2	1h30		1h00	37h30	37h30	40%	60%
Elective Subject 1	1	1	1h30			22h30	02h30		100%
Elective Subject 2	1	1	1h30			22h30	02h30		100%
Technical English and Terminology	1	1	1h30			22h30	02h30		100%
	30	17	13h30	6h00	5h30	375h00	375h00		

Spring Semester

Course	Credits	Coefficient	weekly time load			Time load/semester (15 weeks)	Additional Work in Consultation (15 weeks)	Evaluation mode	
			Lectures	DW	PW			Continuous Assessment Exam	Exam
Microprocessors & DSP (Digital Signal Processing)	6	3	3h00	1h30		67h30	82h30	40%	60%
Digital Control Systems	4	2	1h30	1h30		45h00	55h00	40%	60%
Advanced Digital Electronics: VHDL - FPGA	4	2	1h30	1h30		45h00	55h00	40%	60%
Industrial Networks and Communication	4	2	1h30	1h30		45h00	55h00	40%	60%
Microprocessors & DSP Lab	2	1			1h30	22h30	27h30	100%	
Digital Control Systems Lab	2	1			1h30	22h30	27h30	100%	
VHDL - FPGA Lab / Industrial Networks Lab	2	1			1h30	22h30	27h30	100%	
Pre-project	3	2	1h30		1h00	37h30	37h30	40%	60%
Elective Subject 4	1	1	1h30			22h30	02h30		100%
Elective Subject 5	1	1	1h30			22h30	02h30		100%
Ethics, Professional Conduct, and Intellectual Property	1	1	1h30			22h30	02h30		100%
	30	17	13h30	6h00	5h30	375h00	375h00		

2nd year**Fall Semester**

Courses	Credits	Coefficient	weekly time load			Time load/semester (15 weeks)	Additional Work in Consultation (15 weeks)	Evaluation mode	
			Lectures	DW	PW			Continuous Assessment Exam	Exam
Discrete Event Systems & APIs	6	3	3h00	1h30		67h30	82h30	40%	60%
Industrial actuators	4	2	1h30	1h30		45h00	55h00	40%	60%
Advanced power electronics	4	2	1h30	1h30		45h00	55h00	40%	60%
Digital regulation elements	4	2	1h30	1h30		45h00	55h00	40%	60%
Industrial programmable logic controllers	2	1			1h30	22h30	27h30	100%	
Industrial actuators tutorial/digital control tutorial	2	1			1h30	22h30	27h30	100%	
Advanced power electronics	2	1			1h30	22h30	27h30	100%	
Reliability and maintenance of electronic systems	3	2	1h30		1h00	37h30	37h30	40%	60%
Subject of your choice 5	1	1	1h30			22h30	02h30		100%
Subject of your choice 6	1	1	1h30			22h30	02h30		100%
Documentary research and dissertation design	1	1	1h30			22h30	02h30		100%
Total	30	17	13h30	6h00	5h30	375h00	375h00		

Spring Semester of the 2nd year is dedicated to thesis and dissertation

