



**REMEMBER THAT THROUGHOUT YOUR CAREER YOU MUST COMPLETE AT LEAST TWO SUBJECTS OF THE PROFESSIONAL BLOCK FULLY ONLINE AND AT LEAST TWO IN ENGLISH LANGUAGE.
WE RECOMMEND YOU TO REGISTER AT LEAST ONE COURSE OF HUMANITIES IN EACH SEMESTER SO THAT YOU CAN FINISH YOUR CAREER IN THE TIME YOU HAVE PLANNED.
PLAN THE PROGRESS OF YOUR STUDIES**

his curricular map shows an appropriate ordering of how you can study your subjects. In its preparation, the academic staff considered the complexity, difficulty and progression of the contents of the subjects.

CURRICULUM MAP OF THE DEGREE IN MECHATRONIC ENGINEERING PLAN 2016												
ACADEMIC AREA	SEMESTER 1	SEMESTER 2	SEMESTER 3	SEMESTER 4	SEMESTER 5	SEMESTER 6	SEMESTER 7	SEMESTER 8	SEMESTER 9	Credits		
MANDATORY PROFESSIONAL BLOCK	CRS: MAT 1304 Differential calculus Credits: 7 Hrs: 4.5 Req: Non Sim: Non Outcomes: 5	CRS: MAT 1305 Integral calculus Credits: 7 Hrs: 4.5 Req: MAT1304 Sim: Non Outcomes: 5	CRS: MAT 2305 Multivariate Calculus Credits: 9 Hrs: 6 Req: MAT1305 Sim: Non Outcomes: 5	CRS: MAT 2309 Integral Transforms Credits: 6 Hrs: 4.5 Req: MAT2306 Sim: Non Outcomes: 5	CRS: IMEC 3306 Fluid mechanics Credits: 6 Hrs: 4.5 Req: FIS 2301 Sim: Non Outcomes: 5	CRS: IMEC 3307 Hydropneumatic Systems Credits: 6 Hrs: 4.5 Req: IMEC3306 Sim: Non Outcomes: 7, 9	CRS: IELC 3302 Analog Electronics Credits: 6 Hrs: 4.5 Req: IELC3303, IMEC3301, MAT2309 Sim: Non Outcomes: 7	CRS: INT 4324 Mechatronic Practicum I: Design Methodology Credits: 9 Hrs: 4.5 Req: IMEC4302, IELC4305, IMEC3304 Sim: Non Outcomes: 1, 7, 8, 9	CRS: ING 4301 Technological Innovation Credits: 6 Hrs: 3 Req: Non Sim: Non Outcomes: 3, 9		304	
	CRS: SIS 1301 Algorithms and Programming Credits: 6 Hrs: 4.5 Req: Non Sim: Non Outcomes: 5, 7, 9	CRS: MAT 1308 Probability and statistics Credits: 7 Hrs: 4.5 Req: Non Sim: Non Outcomes: 5	CRS: MAT 2306 Differential equations Credits: 7 Hrs: 4.5 Req: MAT1305 Sim: Non Outcomes: 5, 9	CRS: FIS 2302 Electricity and magnetism Credits: 7 Hrs: 4.5 Req: MAT2305 Sim: Non Outcomes: 6	CRS: IMEC 3301 English	CRS: IELC 3304 MEMS systems Credits: 6 Hrs: 3 Req: IMEC 3303 Sim: Non Outcomes: 3, 7	CRS: IELC 3301 Digital Circuits I Credits: 6 Hrs: 4.5 Req: IELC3303 Sim: Non Outcomes: 5, 9	CRS: IELC 4301 Automation Credits: 9 Hrs: 6 Req: IMEC3307, IELC3301 Sim: Non Outcomes: 2, 4, 8, 9	CRS: IELC 4303 Power Electronics Credits: 6 Hrs: 4.5 Req: IELC3301, IELC4305, IELC3302 Sim: Non Outcomes: 7			
	CRS: QUI 1301 Chemistry Credits: 7 Hrs: 4.5 Req: Non Sim: Non Outcomes: 6	CRS: FIS 2303 Statics Credits: 9 Hrs: 6 Req: Non Sim: Non Outcomes: 6, 8	CRS: FIS 2301 Dynamics Credits: 9 Hrs: 6 Req: FIS2303, MAT1305 Sim: Non Outcomes: 6, 8	CRS: QUI 1302 Thermodynamics Credits: 8 Hrs: 6 Req: Non Sim: Non Outcomes: 5	CRS: IMEC 3304 Design of Mechanical Components Credits: 6 Hrs: 4.5 Req: IMEC 2303 Sim: Non Outcomes: 2, 9	CRS: IELC 3303 Semiconductor Fundamentals Credits: 6 Hrs: 4.5 Req: FIS 1302 Sim: Non Outcomes: 5	CRS: IMEC 4302 Control Theory Credits: 9 Hrs: 6 Req: IMEC3303 Sim: Non Outcomes: 9	CRS: IMEC 4301 Digital Control Credits: 6 Hrs: 4.5 Req: IMEC4302, CMP3301 Sim: Non Outcomes: 7, 9	CRS: IMEC 4303 Industrial robotics Credits: 6 Hrs: 4.5 Req: IMEC4302, IELC4301 Sim: Non Outcomes: 8, 9			
	CRS: IMEC 1301 Computer design Credits: 6 Hrs: 4.5 Req: Non Sim: Non Outcomes: 1, 5, 8, 9	CRS: MAT 1303 Linear algebra Credits: 7 Hrs: 4.5 Req: Non Sim: Non Outcomes: 5	CRS: IMEC 2303 Materials mechanics Credits: 6 Hrs: 4.5 Req: FIS 2303 Sim: Non Outcomes: 2, 7	CRS: IMEC 2302 Design of Mechanical Components Credits: 6 Hrs: 4.5 Req: FIS 2301 Sim: Non Outcomes: 9	CRS: FIS 2305 Electrical Circuits II Credits: 6 Hrs: 4.5 Req: FIS 1302 Sim: Non Outcomes: 5	CRS: SOC2305 Online / Comun Social responsibility and sustainability Credits: 6 Hrs: 3 Req: HUM2301 concurrent: Non Outcomes: 2	CRS: IELC 4305 English		CRS: IELC 4302 Embedded Systems Credits: 6 Hrs: 6 Req: FIS 2305, IELC2301 Sim: Non Outcomes: 7, 9			
	CRS: MAT 1307 Superior Mathematics Credits: 7 Hrs: 4.5 Req: Non Sim: Non Outcomes: 5	CRS: FIS 1302 Electrical Circuits I Credits: 6 Hrs: 4.5 Req: Non Sim: Non Outcomes: 5	CRS: IMEC 2301 Manufacturing processes Credits: 6 Hrs: 4.5 Req: IMEC1302 Sim: Non Outcomes: 7, 8	CRS: SIS 2301 Structured Programming with Microcontrollers Credits: 6 Hrs: 4.5 Req: SIS1301 Sim: Non Outcomes: 9	CRS: IMEC 3303 Dynamics of Mechatronic Systems Credits: 6 Hrs: 4.5 Req: MAT 2306 Sim: Non Outcomes: 7	CRS: IMEC 3305 Computer-Aided Manufacturing Credits: 6 Hrs: 4.5 Req: IMEC1301, IMEC2301 Sim: Non Outcomes: 3, 9	CRS: CMP 3301 Digital Signal Processing Credits: 6 Hrs: 4.5 Req: MAT2309 Sim: Non Outcomes: 5, 6		CRS: INT 4325 Mechatronic Practicum II: Design Project Credits: 9 Hrs: 4.5 Req: INT4324, IELC4301 Sim: Non Outcomes: 1, 7, 8, 9, 10			
		CRS: IMEC 1302 Materials Engineering Credits: 6 Hrs: 4.5 Req: QUI1301 Sim: Non Outcomes: 6							CRS: ADM2302 Comun Entrepreneurship and innovation Credits: 6 Hrs: 3 Req: Non Sim: Non Outcomes: 4			
								Elective Professional Block 1 Credits: 6	Elective Professional Block 2 Credits: 6	Elective Professional Block 4 Credits: 6		24
									Elective Professional Block 3 Credits: 6			
	ANÁHUAC BLOCK (HUMANITIES)	CRS: HUM1303 Being a University Student Credits: 6 Hrs: 3 Req: Non Outcomes: 1		CRS: HUM1302 Meaning of Life Credits: 6 Hrs: 3 Req: HUM1303 Outcomes: 3	CRS: HUM2301 Ethics Credits: 9 Hrs: 4.5 Req: HUM1302 Outcomes: 2	CRS: HUM2302 Person and Transcendence Credits: 6 Hrs: 3 Req: HUM1302 Outcomes: 3	CRS: HUM3301 Classical and Contemporary Humanism Credits: 9 Hrs: 4.5 Req: 110 Credits Outcomes: 1		CRS: LDR3301 Leadership Credits: 6 Hrs: 3 Req: Non Outcomes: 3and4			42



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ACADEMIC AREA	SEMESTER 1	SEMESTER 2	SEMESTER 3	SEMESTER 4	SEMESTER 5	SEMESTER 6	SEMESTER 7	SEMESTER 8	SEMESTER 9	Credits
ELECTIVE BLOCK OF GENERAL STUDIES You can choose 2 subjects of 6 Credits each and 3 workshops or activities of 3 Credits each)	Workshop or general activity 1 Credits: 3 Outcomes: ANÁHUAC			Workshop or general activity 2 Credits: 3 Outcomes: ANÁHUAC	General elective subject 1 Credits: 6 Outcomes: ANÁHUAC		General elective subject 2 Credits: 6 Outcomes: ANÁHUAC	Workshop or general activity 3 Credits: 3 Outcomes: ANÁHUAC		21
Credits	42	42	43	45	42	39	45	45	48	391
Materias	7	6	6	7	7	6	7	7	7	60
Total Credits (Professional Block, Elective Professional Block, Anahuac Block (Humanities), Elective Block of General Studies)										391

Below are the elective professional block subjects from which you can select the subjects you wish to study
 Record if the subjects make up a diploma or the student can study them separately

CATALOG OF ELECTIVE PROFESSIONAL SUBJECTS, Professional area: Diploma in Automotive Mechanics	CRS: IMEC 3308 Analysis of Automotive Systems Credits: 6 Hrs: 3 Req: Non Outcomes: 5	CRS: IMEC 2304 Advanced Computer Design Credits: 6 Hrs: 3 Req: IMEC1301 Outcomes: 9	CRS: IMEC 3309 Vibration analysis Credits: 6 Hrs: 4.5 Req: IMEC2302, IMEC3303 Outcomes: 7	CRS: IMEC 2305 Operation of Heat Machines Credits: 6 Hrs: 3 Req: QUI1302 Outcomes: 7	CRS: IMEC 3310 Computer Aided Engineering Credits: 6 Hrs: 3 Req: IMEC1301, IMEC3304 Outcomes: 7, 9					
CATALOG OF ELECTIVE PROFESSIONAL SUBJECTS, Professional Area: Diploma of Manufacturing Systems	CRS: IMEC 3312 Metalworking processes Credits: 6 Hrs: 4.5 Req: Non Outcomes: 7	CRS: IMEC 3311 Polymer Engineering Credits: 6 Hrs: 3 Req: IMEC1302 Outcomes: 6, 9	CRS: IMEC 3302 Integrated Manufacturing Systems Credits: 6 Hrs: 4.5 Req: IMEC2301 Outcomes: 9	CRS: IIND 4304 Safety and Industrial Facilities Credits: 6 Hrs: 3 Req: Non Outcomes: 7						
CATALOG OF ELECTIVE PROFESSIONAL SUBJECTS, Professional area: Diploma Industrial Automation	CRS: IMEC 4306 Service Robotics Credits: 6 Hrs: 4.5 Req: IELC4301 Outcomes: 9	CRS: IMEC 4308 Industrial Vision Systems Credits: 6 Hrs: 4.5 Req: SIS2301 Outcomes: 7	CRS: IMEC 4304 Inmotics and Domotics Credits: 6 Hrs: 4.5 Req: IELC4301 Outcomes: 7, 9	CRS: IMEC 4305 Industrial networks Credits: 6 Hrs: 4.5 Req: IELC4301 Outcomes: 7	CRS: IMEC 3313 SCADA systems Credits: 6 Hrs: 3 Req: IELC4301 Outcomes: 7	CRS: IMEC 4307 Servopositioning systems Credits: 6 Hrs: 4.5 Req: IMEC4302 Outcomes: 7, 9				
CATALOG OF PROFESSIONAL ELECTIVE SUBJECTS Other Subjects	CRS: IIND 4301 Supply Chain I: Location and Design of Facilities Credits: 6 Hrs: 3 Req: Non Outcomes: 7, 9	CRS: IIND 2308 Introduction to Lean thinking Credits: 6 Hrs: 3 Req: Non Outcomes: 5	CRS: IMEC 1305 Cutting-Edge Topics in Computing Credits: 6 Hrs: 3 Req: Non Outcomes: 3	CRS: IELC 1301 Cutting-Edge Topics in Electronic Engineering Credits: 6 Hrs: 3 Req: Non Outcomes: 3	CRS: IIND 4302 Cutting-Edge Topics in Mechanical Engineering Credits: 6 Hrs: 3 Req: Non Outcomes: 3	CRS: IIND 4302 Supply Chain II: Planning and Control of Production and Inventories Credits: 7 Hrs: 4.5 Req: IIND4301 Outcomes: 7, 10	CRS: IMEC 1306 Selected Mechatronics Engineering Certification Topics Credits: 6 Hrs: 3 Req: Non Outcomes: 3			
CATALOG OF PROFESSIONAL ELECTIVE SUBJECTS Other Subjects	CRS: IIND 2306 Value chain Credits: 6 Hrs: 3 Req: Non Outcomes: 9	CRS: IIND 2311 Negotiation Credits: 6 Hrs: 3 Req: Non Outcomes: 8	CRS: IIND 2309 Just in time Credits: 6 Hrs: 3 Req: Non Outcomes: 9	CRS: IIND 2310 Continuous Improvement Credits: 6 Hrs: 3 Req: Non Outcomes: 10	CRS: ADM 4312 Strategic Planning Credits: 6 Hrs: 3 Req: Non Outcomes: 10	CRS: IELC 4304 Digital Circuits II Credits: 6 Hrs: 4.5 Req: IELC3301 Outcomes: 7, 9				
ATALOG OF ELECTIVE PROFESSIONAL SUBJECTS Other subjects	CRS: IIND 2301 Research methodology Credits: 6 Hrs: 3 Req: Non Outcomes: 6	CRS: IIND 1301 Selected Topics of Engineering and Exact Sciences Credits: 6 Hrs: 3 Req: Non Outcomes: 3	CRS: IIND 4307 Comprehensive Management Systems Credits: 6 Hrs: 3 Req: Non Outcomes: 10	CRS: CUL 1301 Selected Topics of Science and Culture Credits: 6 Hrs: 3 Req: Non Outcomes: 1	CRS: HUM 1301 University Selected Topics Credits: 6 Hrs: 3 Req: Non Outcomes: 1	CRS: ADM 2305 Design and Project Management Credits: 6 Hrs: 3 Req: Non Outcomes: 8, 10				