

**Instituto Tecnológico de Santo Domingo**

Office of Registrar

MECHATRONICS ENGINEERING (IMC) VERSION 2020

Program Credits: 278

Subject	CR	Pre requirements	corequisites	Req . credits
<b>Quarter number : 1</b>				
AHC109 WRITING	4			0
AHO102 ACADEMIC AND INSTITUTIONAL ORIENTATION	0			0
CBA1X3 LIFE IN THE ENVIRONMENT (ELECTIVES)	2			
CBM101 ALGEBRA AND ANALYTICAL GEOMETRY	5			0
CSH112 CITIZENSHIP AND ETHICS	2			0
CSS102 HUMAN BEING AND SOCIETY: CONTEMPORARY SOCIAL ISSUES	2			0
EAA1X1 ACADEMIC AREAS ELECTIVES I	2			
EAA1X2 ACADEMIC AREAS ELECTIVES II	2			
IMC101 MECHATRONIC ENGINEERING SEMINAR	0			0
SHI103 ENGLISH 01 (BASIC I)	0			0
	<u>19</u>			
<b>Quarter number : 2</b>				
AHC110 LINGUISTIC ARGUMENTATION	4	AHC109		0
CBM102 DIFERENTIAL CALCULUS	5	CBM101		0
EAA1X3 ACADEMIC AREAS ELECTIVES III	2			
EAA1X4 ACADEMIC AREAS ELECTIVES IV	2			
ING102 INTRODUCTION TO PROGRAMMING	2	CBM101		0
ING102L INTRODUCTION TO PROGRAMMING LABORATORY	0	CBM101	ING102	0
ING227 ENGINEERING GRAPHICS	4			0
ING236L ENGINEERING GRAPHICS LABORATORY (SOLIDWORKS)	1		ING227	0
SHI104 ENGLISH 02 (BASIC II)	0	SHI103		0
	<u>20</u>			
<b>Quarter number : 3</b>				
CBF210 MECHANICAL PHYSICS I	4		CBM201	0
CBF210L MECHANICAL PHYSICS LABORATORY I	1		CBF210	0
CBM201 INTEGRAL CALCULUS	5	CBM102		0
IMC102 HANDS ON PROGRAM 1	0	IMC101		0
INM201 MECHANICAL DRAWING I	4	ING227 ING236L		0
INS213 PROGRAMMING AND DESIGN OF ALGORITHMS	4	ING102 ING102L		0
INS213L PROGRAMMING AND DESIGN OF ALGORITHMS LABORATORY	1	ING102 ING102L	INS213	0
SHI105 ENGLISH 03 (INTERMEDIATE I)	0	SHI104		0
	<u>19</u>			

**Quarter number : 4**

**Instituto Tecnológico de Santo Domingo**

Office of Registrar

MECHATRONICS ENGINEERING (IMC) VERSION 2020

Program Credits: 278

AHQ101	SCIENTIFIC WORK	4			0
CBF211	MECHANICAL PHYSICS II	4	CBM201 CBF210L CBF210		0
CBF211L	MECHANICAL PHYSICS LABORATORY II	1	CBF210 CBM201 CBF210L	CBF211	0
CBM202	VECTOR CALCULATION	5	CBM201		0
CBQ207	CHEMISTRY I	4	CBM102		0
CBQ207L	CHEMISTRY LABORATORY I	1	CBM102	CBQ207	0
IMC1X1	ELECTIVE SEMINAR I	0	IMC101		
SHI106	ENGLISH 04 (INTERMEDIATE II)	0	SHI105		0
		<hr/>			
		19			

**Quarter number : 5**

CBF212	ELECTRICAL AND MAGNETIC PHYSICS	4	CBF211 CBF211L CBM202		0
CBF212L	ELECTRICAL AND MAGNETIC PHYSICS LABORATORY	1	CBF211 CBF211L CBM202	CBF212	0
CBM208	LINEAR ALGEBRA	5	CBM202		0
IMC103	HANDS ON PROGRAM 2	0	IMC102		0
IMC210	COUNSELING IN MECHATRONIC ENGINEERING I	0			70
ING216	STATIC	4	CBF211 CBF211L	ING216L	0
ING216L	STATIC LABORATORY	1	CBF211 CBF211L	ING216	0
ING229	MATERIAL SCIENCE INTRODUCTION	4	CBM201 CBQ207 CBQ207L		0
ING229L	MATERIAL SCIENCE INTRODUCTION LABORATORY	1	CBM201 CBQ207 CBQ207L	ING229	0
SHI107	ENGLISH 05 (ADVANCED I)	0	SHI106		0
		<hr/>			
		20			

**Quarter number : 6**

CBM203	DIFFERENTIAL EQUATIONS	5	CBM208		0
CSH113	CREATIVE THINKING	2			0
IMC2X1	SEMINAR II ELECTIVE	0	IMC1X1		
ING212	DYNAMICS	4	ING216 ING216L		0
ING212L	DYNAMICS LABORATORY	1	ING216 ING216L	ING212	0
ING234	MECHANICS OF DEFORMABLE SOLIDS	4	ING216 ING216L		0
ING234L	MECHANICS OF DEFORMABLE SOLIDS LABORATORY	1	ING216 ING216L	ING234	0
SHI108	ENGLISH 06 (ADVANCED II)	0	SHI107		0
		<hr/>			
		17			

**Quarter number : 7**

CBM307	NUMERICAL ANALYSIS	4	CBM208		0
CBM307L	NUMERICAL ANALYSIS LABORATORY	1	CBM208	CBM307	0
IMC204	HANDS ON PROGRAM 3	0	IMC103		0

**Instituto Tecnológico de Santo Domingo**

Office of Registrar

MECHATRONICS ENGINEERING (IMC) VERSION 2020

Program Credits: 278

INE377	CIRCUITS I	4	CBF212 CBF212L		0
INE377L	CIRCUITS LABORATORY I	1	CBF212 CBF212L	INE377	0
ING214	DATA ANALYSIS IN ENGINEERING	4	CBM201		0
INM305	MECHANISMS	4	ING212 ING212L		0
INM396	ASSISTED ENGINEERING (CAE) I	1			0
		<hr/>			
		19			

**Quarter number : 8**

CBM311	MATHEMATICAL METHODS FOR ENGINEERS	4	CBM203		0
CSH105	INTEGRATING PROJECT OF GENERAL STUDIES	2			40
EEE2X1	SPECIALIZED STUDIES I ELECTIVES	0			
IMC2X2	ELECTIVE SEMINAR III	0	IMC2X1		
INE378	CIRCUITS II	4	INE377 INE377L		0
INE378L	CIRCUITS LABORATORY II	1	INE377 INE377L	INE378	0
INM328	MODELING AND SIMULATION	3	INM305 CBM307 CBM307L	CBM311	0
ISE2X1	SOCIAL INNOVATION ELECTIVE I	0			
		<hr/>			
		14			

**Quarter number : 9**

IEC301	DIGITAL ELECTRONIC	4	INS213 INS213L INE377 INE377L		0
IEC301L	DIGITAL ELECTRONICS LABORATORY	1	INS213 INS213L INE377 INE377L	IEC301	0
IEC302	ELECTRONICS I	4	INE378 INE378L		0
IEC302L	ELECTRONICS LABORATORY I	1	INE378 INE378L	IEC302	0
IMC205	HANDS ON PROGRAM 4	0	IMC204		0
IMC346	COUNSELING IN MECHATRONIC ENGINEERING II	0			150
ING231	EXPERIMENTATION IN ENGINEERING	3	ING214 AHQ101		0
INM329	MACHINERY ELEMENTS DESIGN I	4	ING234 ING234L INM305		0
INM397	ASSISTED ENGINEERING (CAE) II	1		INM329	0
		<hr/>			
		18			

**Quarter number : 10**

IEC303	ELECTRONICS II	4	IEC302 IEC302L		0
IEC303L	ELECTRONICS LABORATORY II	1	IEC302 IEC302L	IEC303	0
IEC304	DIGITAL SYSTEMS AND MICROPROCESSOR	4	IEC302 IEC302L IEC301 IEC301L		0
IEC304L	DIGITAL SYSTEMS AND MICROPROCESSOR LABORATORY	1	IEC302 IEC302L IEC301 IEC301L	IEC304	0
IMC3X1	SEMINAR IV ELECTIVE	0	IMC2X2		
INI383	MATERIAL SCIENCE AND ENGINEERING	4	ING229 ING229L ING234 ING234L		0

**Instituto Tecnológico de Santo Domingo**

Office of Registrar

MECHATRONICS ENGINEERING (IMC) VERSION 2020

Program Credits: 278

INI383L	MATERIAL SCIENCE AND ENGINEERING LABORATORY	1	ING229 ING229L ING234 ING234L	INI383	0
INM336	MACHINERY ELEMENTS DESIGN II	4	INM329		0
		<u>19</u>			

**Quarter number : 11**

IEC312	CONTROL SYSTEMS DESIGN	4	INM328 IEC304 IEC304L		0
IEC312L	CONTROL SYSTEMS DESIGN LABORATORY	1	INM328 IEC304 IEC304L	IEC312	0
IMC328	HANDS ON PROGRAM 5	0	IMC205		0
ING230	ECONOMIC ENGINEERING	4	CBM202		0
INM300	THERMODYNAMICS I	4	ING212		0
INM376	INDUSTRIAL PROCESSES I	4	INI383 INI383L		0
INM376L	INDUSTRIAL PROCESSES LABORATORY I	1	INI383 INI383L	INM376	0
		<u>18</u>			

**Quarter number : 12**

ELE310	APPLICATION OF ELECTRICAL DEVICES	3	INE378L INE378		180
ELE310L	APPLICATION OF ELECTRICAL DEVICES LABORATORY	1	INE378 INE378L	ELE310	0
IEC315	MACHINE LEARNING	4	ING214 IEC312 IEC312L		0
IEC315L	MACHINE LEARNING LABORATORY	1	ING214 IEC312 IEC312L	IEC315	0
IMC343	COMPUTER ASSISTED DESIGN AND MANUFACTURING	3	INM376 INM376L		0
IMC343L	COMPUTER ASSISTED DESIGN AND MANUFACTURING LABORATORY	1	INM376 INM376L	IMC343	0
INL354	POWER ELECTRONICS	4	IEC312 IEC312L		0
INL354L	POWER ELECTRONICS LABORATORY	1	IEC312 IEC312L	INL354	0
		<u>18</u>			

**Quarter number : 13**

EEP3X1	PROFESSIONALIZING STUDIES ELECTIVES I	0			
IMC330	MECHATRONIC SYSTEMS DESIGN	4	IMC343 IMC343L	IMC333	0
IMC330L	MECHATRONIC SYSTEMS DESIGN LABORATORY	1	IMC343 IMC343L	IMC330	0
IMC331	INDUSTRIAL INSTRUMENTATION	4	INE377 INE377L		180
IMC331L	INDUSTRIAL INSTRUMENTATION LABORATORY	1	INE377 INE377L	IMC331	180
IMC333	CONTROL DESIGN AND PROGRAMMING	4	IEC303 IEC303L IEC315 IEC315L		0
IMC333L	CONTROL DESIGN AND PROGRAMMING LABORATORY	1	IEC303 IEC303L IEC315 IEC315L	IMC333	0
IMC337	HANDS ON PROGRAM 6	0	IMC328		0
		<u>15</u>			

**Quarter number : 14**

EEP3X2	PROFESSIONALIZING STUDIES ELECTIVES II	0			
IMC319	MECHATRONIC ENGINEERING PROJECT I	3	IMC330		0

**Instituto Tecnológico de Santo Domingo**

Office of Registrar

MECHATRONICS ENGINEERING (IMC) VERSION 2020

Program Credits: 278

IMC332	PNEUMATIC AND HYDRAULIC CIRCUITS	4	INE377 INE377L		180
IMC332L	PNEUMATIC AND HYDRAULIC CIRCUITS LABORATORY	1	INE377 INE377L	IMC332	180
IMC334	INDUSTRIAL TOURS	0			200
IMC344	AUTOMATED ASSEMBLY SYSTEMS	3			180
		<hr/>			
		11			

**Quarter number : 15**

EEP3X3	PROFESSIONALIZING STUDIES ELECTIVES III	0			
IMC309	MECHATRONIC ENGINEERING PROJECT II	3	IMC319		0
IMC335	INDUSTRIAL ROBOTICS	4	IMC333 IMC333L		0
IMC335L	INDUSTRIAL ROBOTICS LABORATORY	1	IMC333 IMC333L	IMC335	0
IMC336	PROGRAMMABLE LOGIC CONTROLLERS (PLC)	4	IMC333 IMC333L		0
IMC336L	PROGRAMMABLE LOGIC CONTROLLERS LABORATORY	1	IMC333 IMC333L	IMC336	0
IMC338	HANDS ON PROGRAM 7	0	IMC337		0
IMC345	RELIABILITY CENTERED MAINTENANCE (RCM)	3			180
		<hr/>			
		16			