



Bachelor of Science in Civil Engineering

Department of Civil Engineering and Surveying
Version: August 2023 (151 credits)



FIRST YEAR FIRST SEMESTER			
CODE	COURSE	PRE- OR CO-REQUISITES	CRE.
QUIM 3131	General Chemistry I	C-QUIM3133 & (MATE3171 ó MATE3005)	3
QUIM 3133	General Chemistry I Laboratory	C-QUIM3131 & (MATE3171 ó MATE3005)	1
INGL 3XXX	English Course	Placement Based	3
ESPA3101 or 3131	Basic Spanish I or Acad. Literacy I		3
INGE 3011	Engineering Graphics I		2
EDFI XXXX	Physical Education Elective I		1
TOTAL			13

SECOND SEMESTER			
CODE	COURSE	PRE O CO-REQUISITOS	CRE.
INCI 3000	Contemporary Issues in Civil Eng.		1
MATE 3031	Calculus I	MATE 3005 or 3171 & 3172	4
INGL 3XXX	English Course	Placement Based	3
ESPA3102 or 3132	Basic Spanish II or Acad. Literacy II	ESPA 3101 or 3131	3
INGE 3012	Engineering Graphics II	INGE3011	2
EDFI XXXX	Physical Education Elective II		1
TOTAL			14

SECOND YEAR FIRST SEMESTER			
CODE	COURSE	PRE- OR CO-REQUISITES	CRE.
MATE 3032	Calculus II	MATE 3031	4
FISI 3171	Physics I	MATE 3031	4
FISI 3173	Physics I Laboratory	C- FISI 3171	1
INGE 3031	Applied Mechanics – Statics	MATE3031	3
INGL 3XXX	English Course (2nd Year)	Placement Based	3
TOTAL			15

SECOND SEMESTER			
CODE	COURSE	PRE- OR CO-REQUISITES	CRE.
MATE 3063	Calculus III	MATE 3032	3
FISI 3172	Physics II	FISI 3171	4
FISI 3174	Physics II Laboratory	FISI 3173, C-FISI 3172	1
INGL 3XXX	English Course (2nd Year)	Placement Based	3
INCI 4201	Surveying & Plan Reading	MATE 3031, INGE 3012	2
INCI 4202	Surveying & Plan Reading Lab	C-INCI 4201	1
INGE 3016	Algorithms & Computer Progr.		3
TOTAL			17

THIRD YEAR FIRST SEMESTER			
CODE	COURSE	PRE- OR CO-REQUISITES	CRE.
MATE 4009	Ordinary Differential Equations	MATE 3063	3
INGE 4019	Introduction to Mechanics of Materials	MATE 3063, INGE 3031	4
INGE 3032	Applied Mechanics – Dynamics	FISI 3171, INGE 3031	3
INCI 4055	Construction Eng. and Management I	INGE 3016	3
GEOL 4015	Geology for Engineers	---	3
TOTAL			16

SECOND SEMESTER			
CODE	COURSE	PRE- OR CO-REQUISITES	CRE.
INGE 4015	Fluid Mechanics	MATE 3063, INGE 3032	3
INCI 4021	Structural Analysis I	INGE4012 or INGE 4019	3
INCI 4211	Location & Design of Linear Projects	INCI 4002 or INCI4201	2
INCI 4212	Location & Design of Linear Proj. Lab	C- INCI 4211	1
INCI 4236	Probability & Statistics in Civil Eng.	MATE 3032	3
Ethics Course	College of Eng. Approved List	---	3
TOTAL			15

FOURTH YEAR FIRST SEMESTER			
CODE	COURSE	PRE- OR CO-REQUISITES	CRE.
INGE 4016	Fluid Mechanics Laboratory	C- INGE 4015	1
INCI 4137	Transportation Engineering	INCI 4236	3
INCI 4138	Water Resources Engineering	INGE 4015 o INGE 4010 o INQU 4010	3
INCI 4231	Civil Engineering Materials	QUIM3131-3133, (INGE4019 o INGE4011)	3
INCI 4241	Geotechnical Engineering	(INGE4019 or INGE4011), (INGE4015 or INQU4010), C-GEOL4015	3
SOC. HUM.	Social Sciences & Humanities Elective	---	3
TOTAL			16

SECOND SEMESTER			
CODE	COURSE	PRE- OR CO-REQUISITES	CRE.
INCI 4008	Environmental Engineering	(INGE4015 or INQU4010) & (QUIM3131 and QUIM3133)	3
INCI 4012	Reinforced Concrete Design	INCI 4021, INCI4231	3
INCI 4056	Construction Eng. and Management II	INCI 4055	3
INCI 4232	Civil Eng. Materials Laboratory	R- INCI 4231	1
ININ 4015	Engineering Economic Analysis	MATE3032	3
EL. LIBRE	Free Elective	---	3
TOTAL			16

FIFTH YEAR FIRST SEMESTER			
CODE	COURSE	PRE- OR CO-REQUISITES	CRE.
INCI 4XXX	2nd Course (Civil Eng. Areas)	First Course in the Selected Technical Area	3
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INCI-ELEC	Technical/Prof. Elective in Civil Eng.	Depends on the Course Selected	3
INCI 4XXX	Laboratory (Civil Eng. Areas)	First Course in the Selected Technical Area	1
SOC. HUM.	Social Sciences & Humanities Elective	---	3
EL. LIBRE	Free Elective	---	3
TOTAL			16

SECOND SEMESTER			
CODE	COURSE	PRE- OR CO-REQUISITES	CRE.
INCI 4950	Integrated Civil Eng. Design-Capstone	(Last 19 Credits) and Director Approval	3
INCI 4XXX	Laboratory (Civil Eng. Areas)	1st Course in the Selected Area	1
INCI-ELEC	Technical/Prof. Elective in Civil Eng.	Depends on the Course Selected	3
EL. LIBRE	Free Elective	---	3
EL. LIBRE	Free Elective	---	3
TOTAL			13

TOTAL 151

EL. LIBRE = Free Elective

INCI-ELEC. = Technical or Professional Elective in Civil Engineering Area

SOC. HUM. = Social Science and Humanities Elective