

BSIE Curriculum 2016

Offer ¹	Course ID	Title	Co-Req.	Req.	Cr.
Year 1 - First Semester					Total Credits: 17
	ESPA 3101	Basic Spanish I			3
	INGE 3011	Graphics			2
	INGL 3XXX ³	1st Year English			3
	MATE 3005 ²	Pre-Calculus		Exam	5
	QUIM 3131	General Chem. I	QUIM 3133 MATE 3005		3
	QUIM 3133	General Chem. Lab I	QUIM 3131 MATE 3005		1
Year 2 - First Semester					Total Credits: 18
	FISI 3171	Physics I		MATE 3031	4
	FISI 3173	Physics Lab. I	FISI 3171		1
	INGE 3031	Eng. Mech.Statics		MATE 3031	3
	INGE 3016	Alg. & Comp. Prog.		MATE 3005	3
	INGL 3XXX ³	2nd Year English			3
	MATE 3032	Calculus II		MATE 3031	4
Year 3 - First Semester					Total Credits: 17
	INEL 4075	Fund. Electrical Eng.		MATE 3063 FISI 3172	3
A-J	ININ 4020	Applied Ind. Stat.		ININ 4010 MATE 3063	3
A-J	ININ 4077 ¹	Work Systems Dsgn.		ININ 4010	4
	INME 4055	Mfg. Proc.		INGE 4001	3
	MATE 4145	Linear Alg. & Diff. Eq.		MATE 3063 INGE 3016	4
Year 4 - First Semester					Total Credits: 18
	ECON 3021	Princ. Econ. I			3
	INEL 4077	Basic Electr. Lab.	INEL 4076		1
	INGE 4011	Mech. Materials I		INGE 3031 MATE 3032	3
A-J	ININ 4087	Cost Management		ININ 4010	4
A-J	ININ 4155	Prod. Syst. & Inv.	ININ 4015	ININ 4150 ININ 4020	4
	INME 4045	Gen. Thermodyn.		QUIM 3132 FISI 3172	3
Year 5 - First Semester					Total Credits: 18
A	ININ 4017	Inf. Sys.		INGE 3016	3
A-J	ININ 4057 ^{L,P}	R.T. Proc. Ctrl.	INME 4055 INEL 4077	INGE 3016 INEL 4076	3
A-J	ININ 4079 ^P	Design Project		ININ 4015 ININ 4040 ININ 4150 Auth. Dir.	3
	ININ	Ind. Eng. Elective			3
		Socio/Hum. Elec.			3
		Free Elective			3

Footnotes:

- A= August (1st Semester), J= January (2nd Semester)
 - The following are alternative sequences for MATE 3005-MATE 3031:
MATE 3171 - MATE 3172 - MATE 3031
MATE 3143 - MATE 3144
 - The following are approved sequences for English (INGL) courses:
INGL 3101 - INGL 3102 - INGL 3201 - (INGL 3202 or INGL3191)
INGL 3103 - INGL 3104 - (two add. courses from list provided by English Dept.)
INGL 3211 - INGL 3212 - (A score of 4 or 5 in English AP Exam)
 - Laboratory sessions integrated with class lectures.
 - P. A project is required for this course.
- Additional notes:**
- A grade of C or better is required for all ININ course.
 - To get credit for ININ 4995 a minimum of one summer and one semester are required.
 - ININ 4996 & ININ 4998 can be selected for credit as long as max. credits not exceeded.
 - 15 credits in Sociohumanistic Electives must be chosen from approved list.
 - A total of 12 credits must be taken as free electives. Free electives must be a higher level than similar courses on the ININ program or any elective course already taken by the student.
 - Course offerings on summers will be published on 2nd semesters.

Offer ¹	Course ID	Title	Co-Req.	Req.	Cr.
Year 1 - Second Semester					Total Credits: 18
	EDFI	Physical Edu. Elec.			1
	ESPA 3102	Basic Spanish II		ESPA 3101	3
	INGL 3XXX ³	1st Year English			3
	MATE 3031 ²	Calculus I		MATE 3005	4
	QUIM 3132	General Chem. II	QUIM 3134	QUIM 3131 QUIM 3133	3
	QUIM 3134	General Chem. Lab II	QUIM 3132	QUIM 3131 QUIM 3133	1
		Socio/Hum. Elec.			3
Year 2 - Second Semester					Total Credits: 18
	EDFI	Physical Edu. Elective			1
	FISI 3172	Physics II		FISI 3171	4
	FISI 3174	Physics Lab. II	FISI 3172	FISI 3173	1
	INGE 3032	Eng. Mechanics Dyn.		INGE 3031 FISI 3171	3
	INGE 4001	Eng. Materials		QUIM 3132 FISI 3171	3
A-J	ININ 4010	Prob. & Stat. for Eng.		INGE 3016 MATE 3032	3
	MATE 3063	Calculus III		MATE 3032	3
Year 3 - Second Semester					Total Credits: 18
A-J	ININ 4150	Models in OR		ININ 4010 MATE 4145	4
A-J	ININ 4009 ^{L,P}	Work Measurement		ININ 4077 ININ 4020	4
A-J	ININ 4015	Eng. Econ. Analysis		MATE 3032	3
	INEL 4076	Fund. Of Electronics		INEL 4075	3
	INME 4056	Manuf. Proc. Lab.	INME 4055		1
	INGL 3XXX ³	2nd Year English			3
Year 4 - Second Semester					Total Credits: 15
J	ININ 4018 ^P	Syst. Simulation		ININ 4150	3
J	ININ 4027 ^P	Des. Anal. Eng. Exp.		ININ 4020	3
A-J	ININ 4040 ^{L,P}	Layout Degn.	ININ 4015	ININ 4009 ININ 4155	3
J	ININ 4078 ^L	Stat. Quality Ctrl.		ININ 4010	3
		Socio/Hum. Elec.			3
Year 5 - Second Semester					Total Credits: 18
	ININ	Ind. Eng. Elective			3
		Socio/Hum. Elec.			6
		Free Elective			9

Industrial Engineering Electives

Course no.	Description	Cr.	Requisites
ININ 4016	Industrial Safety	3	ININ4077
ININ 4810	Concurrent Eng.	3	ININ4077
ININ 4996	Special Problems	1-3	Auth. of the Dir.
ININ 4998	Undergrad. Research	1-6	Auth. of the Dir.
ININ 5005	Modern Opt. Methods	3	ININ4150
ININ 5006	Sys. Eng. and Ana.	3	ININ4007
ININ 5007	Complex Sys. Mod.&Dyn.	3	ININ4150
ININ 5008	Know. Disc. Eng. Mult. Data	3	ININ4020
ININ 5009	Lean Six Sigma Meth.	3	ININ4155
ININ 5105	Intr. Med. Dev. Design	3	ININ4020
ININ 5405	Stat. Methods. Bio. Inf.	3	ININ4010
ININ 5505	Total Quality Mgmt.	3	ININ4078
ININ 5565	Mgmt.&Predict. Prd. Reliab.	3	ININ4020
ININ 5575	Seq. & Sched. of Resour.	3	ININ4155
ININ 5595	Des. & Mgmt of Serv. Proc.	3	ININ4009

ININ Courses Can Only be Taken as Free Electives

Course no.	Description	Cr.	Requisites
ININ 4995	COOP	3-9	ININ4020
ININ 4029	Human Behav. Work. Org.	3	ININ4077
ININ 4035	Human Res. Plann.	3	ININ4077
ININ 4050	Print. Circ. Brd Assy.	3	QUIM3132& FISI3174