

Biomedical Specialization (Pre-Med Path)

Four-Year Academic Plan

	Fall	Spring
First Year	TCO 141 Intro to Professional Com OR EGR 126 Programming for Engineers MAT 191 Calculus I CHM 111 General Chemistry I UNV 101 The Freshman Experience XXX Gen Ed Grp 2/3/4	TCO 141 Intro to Professional Com OR EGR 126 Programming for Engineers EGR 107 Intro to Engr Design MAT 192 Calculus II CHM 112 General Chemistry II XXX Gen Ed Grp 2/3/4
Second Year	BME 288 Intro Biomedical Engr EGR 232 Statics / Solid Mech EGR 244 Electrical Fund I MAT 330 Intro to Diff Eqns PHY 161 General Physics I	EGR 236 Dynamics EGR 245 Electrical Fund II EGR 246L Electrical Fund Lab BIO 211 Intro to Biology I PHY 162 General Physics II XXX Gen Ed Grp 2/3/4
Third Year	BIO 212 Intro to Biology II CHM 221 Organic Chemistry I EGR 235 Thermodynamics EGR 386 Feedback Control TCO 341 Tech Communication	EGR 252 Prob & Stats for Engr BME 402 Bio Instrumentation BME 425 Basic Transport Pheno BME 480 Intro to Senior Design CHM 222 Organic Chemistry II EGR 312 Engr Economy
Fourth Year	BIO 325 Comp Animal Phys. BME 412 Biomechanics BME 440 Dynamics of Bio Fluids BME 445L Sr. BME Lab BME 470 Bio Appl of Microcont. BME 487 Engr Design Exhibit I	BME 460 Bio Materials BME 488 Engr Design Exhibit II XXX Hum/SS/Comm Elec. XXX Hum/SS/Comm Elec. XXX Technical Elective XXX Technical Elective



Biomedical Specialization (Traditional Path)

Four-Year Academic Plan

	Fall	Spring
First Year	TCO 141 Intro to Professional Com OR EGR 126 Programming for Engineers MAT 191 Calculus I CHM 111 General Chemistry I UNV 101 The Freshman Experience	TCO 141 Intro to Professional Com OR EGR 126 Programming for Engineers EGR 107 Intro to Engr Design MAT 192 Calculus II CHM 112 General Chemistry II
Second Year	BME 288 Intro Biomedical Engr EGR 232 Statics / Solid Mech EGR 244 Electrical Fund I MAT 330 Intro to Diff Eqns PHY 161 General Physics I	EGR 236 Dynamics EGR 245 Electrical Fund II EGR 246L Electrical Fund Lab BIO 205 Biology of BME's MAT 293 Multivar Calculus PHY 162 General Physics II
Third Year	CHM 221 Organic Chemistry I EGR 235 Thermodynamics EGR 386 Feedback Control TCO 341 Tech Communication XXX Technical Elective	EGR 252 Prob & Stats for Engr BME 402 Bio Instrumentation BME 425 Basic Transport Pheno BME 480 Intro to Senior Design EGR 312 Engr Economy XXX Gen Ed 2/3/4
Fourth Year	BIO 325 Comp Animal Phys. BME 412 Biomechanics BME 440 Dynamics of Bio Fluids BME 445L Sr. BME Lab BME 470 Bio Appl of Microcont. BME 487 Engr Design Exhibit I	BME 460 Bio Materials BME 488 Engr Design Exhibit II XXX Hum/SS/Comm Elec. XXX Hum/SS/Comm Elec. XXX Technical Elective XXX Technical Elective



	Fall	Spring
First Year	CHM 111 General Chemistry I	EGR 107 Intro to Engr Design
	EGR 126 Programming for Engineers	TCO 141 Intro to Professional Com
	MAT 191 Calculus I	MAT 192 Calculus II
	UNV 101 The Freshman Experience	PHY 161 General Physics I
	XXX Gen Ed Grp 2/3/4	XXX Gen Ed Grp 2/3/4
Second Year	EGR 232 Statics / Solid Mech EGR 244 Electrical Fund I MAT 330 Intro to Diff Eqns PHY 162 General Physics II XXX Gen Ed Grp 2/3/4	CSC 204 Programming I ECE 322 Digital Logic EGR 236 Dynamics EGR 245 Electrical Fund II EGR 246L Electrical Fund Lab ECE 202 Signals and Systems
Third Year	CSC 205 Programming II TCO 341 Tech Communication ECE 323 Microcomputer Fund MAT 225 Topic in Discrete Math ECE 424 Digital Design/VHDL	CSC 245 Data Struct and Algo ECE 428 Embedded Comp Sys ECE 481 Intro to Senior Design EGR 235 Thermodynamics EGR 386 Feedback Control EGR 252 Prob and Stats for Engr
Fourth Year	CSC 480 Software Engineering ECE 340 Electromagn Appl EGR 425 Computer Architecture ECE 485 Egr Design Exhibits I ECE 4xx ECE Tech Elective XXX Hum/SS/Comm Elec.	ECE 455 Computer Networks I EGR 312 Engineering Economy ECE 486 Engr Design Exhibits II ECE 4xx Tech Elective XXX Hum/SS/Comm Elec.



	Fall	Spring
First Year	CHM 111 General Chemistry	EGR 107 Intro to Engr Design
	EGR 126 Programming for Engineers	TCO 141 Professional Com
	MAT 191 Calculus I	MAT 192 Calculus II
	UNV 101 The Freshman Experience	PHY 161 General Physics I
	XXX Gen Ed Grp 2/3/4	XXX Gen Ed Grp 2/3/4
	EGR 232 Statics / Solid Mech	ECE 202 Signals and Systems
	EGR 244 Electrical Fund I	EGR 236 Dynamics
Second Veer	MAT 330 Intro to Diff Eqns	EGR 245 Electrical Fund II
Second Year	PHY 162 General Physics II	EGR 246 Electrical Fund Lab
	XXX Gen Ed Grp 2/3/4	ECE 322 Digital Logic
		EGR 252 Prob. and Stats for Engr
	ECE 311 Electronics I	ECE 312 Electronics II
	ECE 323 Microcomputers Fund	ECE 312L Electronics II Lab
	ECE 431 Analog/Digital Sig Proc	ECE 341 Emag Field Theory
Third Year	EGR 386 Feedback Control	ECE 480 Intro to Senior Design
	Mat 293 Multivariable Calculus	EGR 235 Thermodynamics
	ECE 340 Electromagnetic Applic	EGR 312 Engineering Economy
		TCO 341 Tech Communications
Fourth Year	ECE 451 Communications I	ECE 488 Eng Design Exhibit II
	ECE 451L Comm Lab	ECE 4xx ECE Technical Elective
	ECE 487 Eng Design Exhibit I	ECE 4xx ECE Technical Elective
	ECE 4xx ECE Technical Elective	ECE 452 Dig Comm & St Proc
	ECE 4xx ECE Technical Elective	XXX Technical Elective
	XXX Hum/SS/Comm Elec.	XXX Hum/SS/Comm Elec.

Environmental Specialization

Four-Year Academic Plan

	Fall	Spring
First Year	CHM 111 General Chemistry I	EGR 107 Intro to Engr Design
	EGR 126 Programming for Engineers	TCO 141 Intro to Professional Com
	MAT 191 Calculus I	MAT 192 Calculus II
	UNV 101 Freshman Experience	CHM 112 General Chemistry II
	XXX Gen Ed Grp 2/3/4	XXX Gen Ed Grp 2/3/4
	EGR 232 Statics/Solid Mech	EGR 235 Thermodynamics
	EGR 244 Electrical Fund I	EGR 236 Dynamics
Concerned Manage	EVE 290 Intro to EVE	EGR 245 Electrical Fund II
Second Year	EVE 290L Intro to EVE Lab	EGR 246L Electrical Fund Lab
	MAT 330 Intro to Diff Eqns	EGR 252 Prob and Stats for Engr
	PHY 161 General Physics I	XXX Gen Ed Grp 2/3/4
	EGR 312 Engineering Economy	EVE 384 Engineering Hydraulics
	EVE 4XX Elective	EVE 4XX Elective
	EVE 385 Engineering Hydrology	EVE 405 Des/Anal/Waste Water Sys
Third Year	TCO 341 Tech Communication	EVE 480 Intro to Senior Design
	XXX Laboratory Science	XXX Hum/SS/Comm Elec.
	MAEA 205 Visual and Graphics	XXX Laboratory Science
Fourth Year	EVE 4XX Elective	EVE 4XX Elective
	EGR 386 Feedback Control	EVE 430 Bioremediation
	EVE 445L Environmental Lab	EVE 488 Eng Design Exhibit II
	EVE 486 Public Health	XXX Technical Elective I
	EVE 487 Eng Design Exhibit I	XXX Hum/SS/Comm Elec.
	EVE 490 Groundwater Hydrology	



	Fall	Spring
	TCO 141 Intro to Professional Comm	Intro to Professional Comm
	OR	OR
	EGR 126 Programming for Engineers	EGR 126 Programming for Engineers
First Year	MAT 191 Calculus I	EGR 107 Intro to Engr Design
	CHM 111 General Chemistry I	MAT 192 Calculus II
	UNV 101 Freshman Experience	PHY 161 General Physics I
	XXX Gen Ed Grp 2/3/4	XXX Gen Ed Grp 2/3/4
	FCP 222 Statics/Solid Mach	EGR 235 Thermodynamics
	EGR 244 Electrical Fund I	EGR 236 Dynamics
	MAE 205 Visualization & Graphics	EGR 245 Electrical Fund II
Second Year	MAT 330 Intro to Diff Eqns	EGR 246L Electrical Fund Lab
		EGR 252 Prob and Stats for Engr
	Laboratory Science	EGR 312 Engineering Economy
		ISE 288 Intro to ISE
	ISE 302 Mgr Sci/Op Res	EGR 386 Feedback Control
	ISE 327 Stat Process & Qual Control	ISE 311 Ergonomic/Work Mst
Third Veer	ISE 352 Design of Experiments	ISE 362 Production Planning & Control
inita fear	MAE 305L Mfg Practices Lab	ISE 370 Mfg Processes
	TCO 341 Technical Communications	ISE 480 Intro to Senior Design
	XXX Gen Ed Grp 2/3/4	XXX Hum/SS/Comm Elec
Fourth Year	ACC 204 Intro to Financial Acct	ISE 400 level
	ISE 400 level	ISE 400 level
	ISE 400 level	ISE 482L Capstone Lab
	ISE 400 level	ISE 488 Engr Design Exhibit II
	ISE 487 Engr Design Exhibit I	XXX Professional Elective
	XXX Professional Elective	XXX Hum/SS/Comm Elec



	Fall	Spring
First Year	TCO 141 Intro to Professional Comm	TCO 141 Intro to Professional Comm
	OR	OR
	EGR 126 Programming for Engineers	EGR 126 Programming for Engineers
	MAT 191 Calculus I	EGR 107 Intro to Engr Design
	CHM 111 General Chemistry I	MAT 192 Calculus II
	UNV 101 Freshman Experience	PHY 161 General Physics I
	XXX Gen Ed Grp 2/3/4	XXX Gen Ed Grp 2/3/4
		EGR 236 Dynamics
	EGR 232 Statics/Solid Mech	EGR 235 Thermodynamics
	EGR 244 Electrical Fund I	EGR 245 Electrical Fund II
Second Year	MAT 330 Intro to Diff Eqns	EGR 246L Electrical Fund Lab
	Laboratory Science	EGR 252 Prob and Stats for Engr
	XXX Gen Ed Grp 2/3/4	MAE 205 Visual and Graphics
		MAT 293 Multivariable Calculus
	EGR 312 Engineering Economy	EGR 312 Engineering Economy
	OR	OR
	EGR 386 Feedback Control	EGR 386 Feedback Control
Third Year	MAE 305L Mfg Practices Lab	MAE 302 Experi. Methods for MEs
	MAE 310 Engr Analysis for ME	MAE 322 Machine Design
	MAE 320 Solid Mechanics II	MAE 362 Struct & Prop of Material
	MAE 330 Fluid Mechanics	MAE 430 Heat Transfer
	TCO 341 Technical Communications	MAE 480 Intro to Senior Design
	MAE 402L Mech Engr Lab II	MAE XXX Technical Elective
	MAE 435 Thermal Sys Analysis	MAE 488 Engr Design Exhibit II
Fourth Year	MAE 460 Engineering Materials	MAE 400 Engr Design Exhibit in MAE AXX Technical Elective
	MAE 487 Engr Design Exhibit II	XXX Technical Elective
	MAE 4XX Technical Elective	XXX Hum/SS/Comm Elec
	XXX Hum/SS/Comm Elec	AAA Huiliy 33/ Colline Elec



	Fall	Spring
First Year	TCO 141 Intro to Professional Com OR EGR 126 Programming for Engineers ECN 150 Microeconomics MAE 205 Visual and Graphics PSY 101 Intro to Psychology MAT 191 Calculus I UNV 101 Freshman Experience	TOC 141 Intro to Professional Com OR EGR 126 Programming for Engineers EGR 107 Intro to Engr Design XXX Math and Science PHY 141 Intro Physics I XXX Gen Ed Grp 2/3
Second Year	ACC 204 Intro to Financial Acct CHM 111 General Chemistry I ECN 151 Macroeconomics EGR 252 Prob and Stats for Engr XXX Gen Ed Grp 2/3	ACC 205 Intro to Managerial Acct IDM 288 Intro to IDM & Mfg MAE 305L Mfg Practices Lab MGT 363 Principles of Management XXX Math and Science PSY 235 Industrial Psychology
Third Year	XXX Concentration Area IDM 355 Quality Management ISE 302 Mgt Science / Op Res MKT 361 Principles of Marketing TCO 341 Technical Comm XXX Hum/SS/Comm Elec	FIN 362 Principles of Finance ISE 370 Mfg Processes IDM 480 Intro to Senior Design XXX Concentration Area XXX Concentration Area XXX Concentration Area
Fourth Year	IDM 487 Senior Design Exhibit I MGT 423 Organ Behavior XXX Concentration Area XXX Concentration Area XXX Free Elective XXX Hum/SS/Comm Elec	BUS 346 Legal Env of Business IDM 404 IDM Case Studies IDM 488 Senior Design Exhibit II XXX Free Elective XXX Hum/SS/Comm Elec



	Fall	Spring
First Year	UNV 101 Freshman Experience TCO 141 Professional Com MAT 133 Precalculus XXX 1XX Science course w/Lab XXX Gen Ed Grp 2	EGR 107 Intro to Engr Design EGR 126 Programming for Engineers TCO 285 Document & Web Design XXX 1XX Science course w/Lab XXX Gen Ed Grp 3
Second Year Third Year	STA 126 Elem. Statis. Methods TCO XXX TCO Elective I XXX Elective XXX Elective XXX Gen Ed Grp 4 TCO XXX TCO Elective IV TCO XXX TCO Elective V XXX Prof. Track Elective II XXX Elective XXX Elective	TCO XXX TCO Elective II TCO XXX TCO Elective III TCO 341 Tech Comm XXX Prof. Track Elective I XXX Gen Ed Grp 2/3/4/6 TCO 361 Usability TCO XXX TCO Elective VI XXX Prof. Track Elective III XXX Elective XXX Elective
Fourth Year	TCO 363 Instructional Design TCO XXX TCO Elective VII TCO XXX TCO Elective VIII XXX Prof. Track Elective IV XXX Elective	TCO 490 Internship TCO 421 Tech Editing XXX Prof. Area Elective V XXX Elective XXX Elective*

*Number of Free Electives will vary; must reach total hours of 120.

General Education Requirements

For the degree Bachelor of Science in Engineering

2. Religion (minimum of 3 hours) at least one course selected from: CHR 101, CHR 150, CHR 170; ENG 225; HIS 160; PHI 240; GBK 203

3. Humanities/Fine Arts (minimum of 3 hours) at least one course selected from: ART 106, ART 107, ART 115, ART 116, ART 223, ART 224, ART 225, ART 226, ART 254; CLA 101, CLA 102; CHR 210, CHR 270; ENG 224, ENG 226, ENG 263; ENG 264, ENG 233; ENG 234; ENG 235; ENG 237; GBK 202, GBK 305; HIS 110, HIS 145, HIS 165; JMS 220; JMS 225; MUS 151; PHI 190; PHI 230, PHI 260, PHI 265, PHI 269; PHO 230; THR 115, THR 218; WLT 101

4. Behavioral/Social Science (minimum of 3 hours) at least one course selected from: AFR 190; AFR 210; ANT 101; COM 230; COM 250; ECN 150; ECN 151; ENV 250; GBK 306; GEO 111; JMS 101; PHI 237; POL 101; POL/IAF 253; PSY 101; SEP 200; SOC 101; WGS 180

Humanities/Social Science/Communications Electives

For the degree Bachelor of Science in Engineering

At least two courses selected from areas prefixed by: AFR, ANT, ART, CHR, CLA, COM, ECN, ENG, ENV, GEO, GHS, HIS, JMS, MUS, PHI, PHO, POL, PSY, SEP, SOC, THR, WLT, WGS, GBK, TCO, or courses in the languages (CHN, FRE, GER, LAT, or SPN)

General Education Requirements

For the degree Bachelor of Science in Industrial Management

2. Religion (minimum of 3 hours) at least one course selected from: CHR 101, CHR 150, CHR 170; ENG 225; HIS 160; PHI 240; GBK 203

3. Humanities/Fine Arts (minimum of 3 hours)

at least one course selected from: ART 106, ART 107, ART 115, ART 116, ART 223, ART 224, ART 225, ART 226, ART 254; CLA 101, CLA 102; CHR 210, CHR 270; ENG 224, ENG 226, ENG 263, ENG 264, ENG 233, ENG 234, ENG 235, ENG 237; HIS 110, HIS 145, HIS 165; JMS 220; JMS 225; MUS 151; PHI 190; PHI 230, PHI 260, PHI 265, PHI 269; PHO 190, PHO 230; THR 115, THR 218; WLT 101; GBK 202, GBK 305

(4) Behavioral/Social Science (minimum of 9 hours)

ECN 150, ECN 151, PSY 101

additional courses beyond the required minimum may be selected from: AFR 190; AFR 210; ANT 101; COM 230; COM 250; ENP 250; GEO 111; JMS 101; PHI 237; POL 101; POL/IAF 253; SEP 200; SOC 101; WGS 180; GBK 306

Humanities/Social Science/Communications Electives

For the degree Bachelor of Science in Industrial Management

At least two courses selected from areas prefixed by: AFR, ANT, ART, CHR, CLA, COM, ECN, ENG, ENV, GEO, GHS, HIS, JMS, MUS, PHI, PHO, POL, PSY, SEP, SOC, THR, WLT, WGS, GBK, TCO, or courses in the languages (CHN, FRE, GER, LAT, or SPN)

General Education Requirements

For the degree Bachelor of Science in Technical Communication

2. Religion (minimum of 3 hours)

at least one course selected from: CHR 101, CHR 150, CHR 170; ENG 225; HIS 160; PHI 240; GBK 203

3. Humanities/Fine Arts (minimum of 3 hours)

at least one course selected from: ART 106, ART 107, ART 115, ART 116, ART223, ART 224, ART 225, ART 226, ART 254; CLA 101, CLA 102; CHR 210, CHR 270; ENG 224, ENG 226, ENG 263, ENG 264, ENG 233, ENG 234, ENG 235, ENG 237; HIS 110, HIS 145, HIS 165; JMS 220; JMS 225; MUS 151; PHI 190; PHI 230, PHI 260, PHI 265, PHI 269; PHO 190, PHO 230; THR 115, THR 218; WLT 101; GBK 202, GBK 305

4. Behavioral/Social Science (minimum of 3 hours) at least one course selected from: AFR 190, AFR 210; ANT 101; COM 230, COM 250; ECN 150, ECN 151; ENV 250; GEO 111; JMS 101; PHI 237; POL 101; POL/IAF 253; PSY 101; SEP 200; SOC 101; WGS 180; GBK 407

6. Scientific Reasoning (minimum of 8 hours) at least two courses selected from: BIO 110, BIO 202; CHM 111, CHM 112; ENB 105, ENB 110, ENB 150; PHY 115, PHY 141, PHY 142

One additional course selected from groups 2, 3, 4, or 6 (minimum of 3 hours)