Study Plan for B.S.E., *PRODUCT DESIGN & MANUFACTURING ENGINEERING* Major & Mfg Sys Emphasis

Student Name: _____

(2019-20 Catalog) ***(MTH 124 Placement - 5 Year Program)*** **Minor:** _____ **Student ID#:** G

				Credits	Grade	Semester Completed
1st Year	**1st Semester: Fall____**					
		MTH	124 Functions & Models	5		
	*	WRT	150 Writ Strategies	4		
	^	EGR	100 Intro to Engrg	1		
		GE - HP	_____	3		
	^	EGR	180 Intro Engrg Prob Solv	3		
	2nd Semester: Winter ____					
	*	MTH	201 Calculus I	4		
	*	CHM	115 Chemistry I	4		
	*	EGR	106 Intro to Egr Design I	3		
		GE - Arts	_____	3		
	Semester: S/S ____					
		_____		__		
		_____		__		
		_____		__		
2nd Year	**3rd Semester: Fall____**					
	*	MTH	202 Calculus II	4		
	*	EGR	107 Intro to Egr Design II	3		
	@	GE - P & L (PHI 102 Ethics)		3		
	•	GE-SBS	_____	3		
	4th Semester: Winter ____					
	*	MTH	203 Calculus III	4		
	*	STA	220 Statistical Modeling	2		
	*	EGR	220 Measure/Data Analysis	1		
	*	PHY	230 Physics I	5		
	#	GE - GP	_____	3		
	Semester: S/S ____					
		_____		__		
		_____		__		
3rd Year	**5th Semester: Fall____**					
	+ *	PHY	234/1 Physics II	4/5		
	*	EGR	209 Mech & Mach	4		
	*	EGR	226 MicroCtrl Pgm Appl	4		
	*	EGR	289 Engrg Co-op Prep	1		
	6th Semester: Winter ____					
	*	MTH	302 Lin Alg & DEQ	4		
	*	EGR	309 Mach Design I	4		
	*	EGR	250 Mat Sci & Engrg	4		
	*	EGR	214 Circuit Analysis I	4		
	Semester: S/S ____					
		EGR	290 Engrg Co-op I	3		
4th Year	**7th Semester: Fall____**					
		EGR	301 Fund Prod Des	4		
		EGR	345 Dyn Sys Mod	4		
		EGR	367 Mfg Processes	4		
		GE - Issue	_____	3		
	Semester: Winter ____					
		EGR	390 Engrg Co-op II	3		
		GE - US	_____	3		
	8th Semester: S/S ____					
		EGR	362 Thermo-Fluid Sys	4		
		EGR	440 Prod'n Models	3		
		EGR	441 Egr Econ	4		
	%	ECO	210/211 Economics	3		
5th Year	**Semester: Fall____**					
		EGR	490 Engrg Co-op III	3		
		GE - Issue	_____	3		
	9th Semester: Winter ____					
		EGR	450 Mfg Controls	4		
		EGR	485 Sr Project I	1		
		EGR	404 Polymer Science	4		
	$	PDM	Elec _____	3/4		
		GE - LS	_____	3		
	10th Semester: S/S ____					
		EGR	486 Sr Project II	2		
	$	PDM	Elec _____	3/4		

PCEC Student Services: (616)331-6025

* Engineering Foundation course

\+ Students may enroll in PHY 231 instead of PHY 234

^ Not required, but strongly recommended for success. Students are advised to take ***either*** EGR 100 ***or*** EGR 180.

• Consider taking a course that doubles as SBS and US (See Gen Ed guide for selections)

\# Consider taking a course that doubles as GP and Issue (See Gen Ed guide for selections)

@ An ethics course is required in the engineering program (PHI 102 or another ethics course in General Education). Consider taking PHI 102 as an SWS

% ECO 210 or 211 is required in the engineering curriculum. Also fulfills one SBS Gen Ed requirement.

$ **Electives (2 required)**
EGR 413 Materials for Energy Storage
EGR 445 Robotics Systems Engineering
MGT 337 Supply Chain Management
STA 314 Statistical Quality Methods OR STA 315 Design of Experiments

Secondary Admissions Criteria:

- A GPA of 2.7 or above in the Engineering Foundation courses

- Completion of each course in the Engineering Foundation with a grade of C (2.0) or above, **with no more than one repeat**

- Completion of preparation for placement in the cooperative engineering education, EGR 289

Recommendation:

It is strongly encouraged that students do not begin or break a curriculum thread by taking courses at other institutions; e.g., take the MTH 201 equivalent elsewhere, return to GV and continue in the math thread with MTH 202.