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

Student Name: _____

(2018-19 Catalog) ***(MTH 110 Placement - 5 Year Program)*** **Minor:** _____

Student ID#: *G*

	1st Semester: Fall____	Credits	Grade	Semester Completed
1st Year	MTH 110 Algebra	4		
	* WRT 150 Writ Strategies	4		
	^ EGR 100 Intro to Engrg	1		
	GE - Arts _____	3		
	GE - Hist _____	3		

	2nd Semester: Winter ____	Credits	Grade	Semester Completed
	MTH 124 Functions and Models	5		
	* CHM 115 Chemistry I	4		
	GE - LS _____	3		
	• GE-SBS _____	3		

	Semester: S/S ____	Credits	Grade	Semester Completed
	_____	__		
	_____	__		
	_____	__		

	3rd Semester: Fall____	Credits	Grade	Semester Completed
2nd Year	* MTH 201 Calculus I	4		
	* EGR 106 Intro to Egr Design I	3		
	% ECO 210/211 Economics	3		
	@ GE - P & L (PHI 102 Ethics)	3		

	4th Semester: Winter ____	Credits	Grade	Semester Completed
	* MTH 202 Calculus II	4		
	* EGR 107 Intro to Egr Design II	3		
	* PHY 230 Physics I	5		
	* STA 220 Engrg Statistics	2		
	* EGR 220 Engrg Stats Lab	1		

	Semester: S/S ____	Credits	Grade	Semester Completed
	_____	__		
	_____	__		
	_____	__		

	5th Semester: Fall____	Credits	Grade	Semester Completed
3rd Year	* MTH 203 Calculus III	4		
	+ * 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 ____	Credits	Grade	Semester Completed
	* 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 ____	Credits	Grade	Semester Completed
	EGR 290 Engrg Co-op I	3		
	_____	__		

	7th Semester: Fall____	Credits	Grade	Semester Completed
4th Year	EGR 301 Fund Prod Des	4		
	EGR 345 Dyn Sys Mod	4		
	EGR 367 Mfg Processes	4		
	# GE - GP_____	3		

	Semester: Winter ____	Credits	Grade	Semester Completed
	EGR 390 Engrg Co-op II (SWS)	3		

	8th Semester: S/S ____	Credits	Grade	Semester Completed
	EGR 362 Thermo-Fluid Sys	4		
	EGR 329 Intro to FEA	3		
	EGR 405 Mat Analysis	3		
	GE-US _____	3		

	Semester: Fall____	Credits	Grade	Semester Completed
5th Year	EGR 490 Engrg Co-op III	3		

	9th Semester: Winter ____	Credits	Grade	Semester Completed
	EGR 401 Adv Prod Design	4		
	EGR 485 Sr Project I	1		
	$ PDM Elec _____	3/4		
	$ PDM Elec _____	3/4		

	10th Semester: S/S ____	Credits	Grade	Semester Completed
	EGR 486 Sr Project II	2		
	EGR 440 Prod'n Models	3		
	GE - Issue _____	3		
	GE - Issue _____	3		

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

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

\# Consider taking a course that doubles as WP 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 (Choose 2)**

EGR 311 Intermediate CAD/CAM
EGR 326 Embedded System Design
EGR 403 Medical Device Design
EGR 404 Polymer Science and Processing
EGR 409 Machine Design II
EGR 441 Engineering Economics, Quality Control, and Manufacturing Operations
EGR 453 Biomedical Materials
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.