Study Plan for B.S.E., *INTERDISCIPLINARY ENGINEERING* Major--Mechatronics Emphasis

(2018-19 Catalog)   *(MTH 201 Placement with Honors Alliance and Conflict - 4 year program)*

Student Name: _____

Student ID#: _____

1st Year

1st Semester: Fall____

			Credits	Grade	Semester Completed
* MTH	201	Calculus I	4	_____	_____
* CHM	115	Chemistry I	4	_____	_____
HNR	260		3	_____	_____
HNR	201	Live, Learn, Lead	3	_____	_____

2nd Semester: Winter ____

			Credits	Grade	Semester Completed
* MTH	202	Calculus II	4	_____	_____
* EGR	106	Intro to Egr Design I	3	_____	_____
HNR	261		3	_____	_____
HNR	262		3	_____	_____

Semester: S/S ____

			Credits	Grade	Semester Completed
* EGR	107	Intro to Egr Design II	3	_____	_____
* MTH	203	Calculus III	4	_____	_____
* PHY	230	Physics I	5	_____	_____

2nd Year

3rd Semester: Fall____

			Credits	Grade	Semester Completed
* STA	220	Statistical Modeling	2	_____	_____
* EGR	220	Measure/Data Analysis	1	_____	_____
+ * PHY	234/1	Engrg Physics	4/5	_____	_____
* EGR	214	Circuit Analysis I	4	_____	_____
* EGR	209	Mech & Mach	4	_____	_____
* EGR	289	Engrg Co-op Prep	1	_____	_____

4th Semester: Winter ____

			Credits	Grade	Semester Completed
* MTH	302	Lin Alg & DEQ	4	_____	_____
* IE	Track	EGR 309 or 223	3/4	_____	_____
* EGR	250	Materials Science	4	_____	_____
* IE	Track	EGR 226 or 224	3/4	_____	_____
(Mechanical track takes foundation course EGR 226)					

Semester: S/S ____

			Credits	Grade	Semester Completed
EGR	290	Engrg Co-op I	3	_____	_____
* IE	Track	EGR 312 or 226	3/4	_____	_____
(Sensor track takes foundation course EGR 226)					

3rd Year

5th Semester: Fall____

			Credits	Grade	Semester Completed
EGR	314	Circuit Analysis II	4	_____	_____
IE	Track	EGR 346 or 326	4	_____	_____
EGR	315	Electronic Circuits I	4	_____	_____
HNR	LS	_____	3	_____	_____

Semester: Winter ____

			Credits	Grade	Semester Completed
EGR	390	Engrg Co-op II	3	_____	_____
EGR	312	Dynamics (Sensor Track ONLY)	3	_____	_____

6th Semester: S/S ____

			Credits	Grade	Semester Completed
EGR	445	Robotics Systems	4	_____	_____
IE	Track	EGR 409 or 309	4	_____	_____
EGR	455	Automatic Control	4	_____	_____
# HNR	Jr. Sem	_____	3	_____	_____

4th Year

Semester: Fall____

			Credits	Grade	Semester Completed
EGR	490	Engrg Co-op III	3	_____	_____
EGR	352		3	_____	_____
		Dynamics and Kinematics (Mechanical Track ONLY)			

7th Semester: Winter ____

			Credits	Grade	Semester Completed
& EGR	485	Sr Project I	1	_____	_____
IE	Track	EGR 450 or 436	4	_____	_____
% ECO	210 or 211	Micro or Macroecon	3	_____	_____
$ HNR	US	_____	3	_____	_____
IE Track Elective		_____	4	_____	_____

8th Semester: S/S ____

			Credits	Grade	Semester Completed
& EGR	486	Sr Project II	2	_____	_____

PCEC Student Services: (616)331-6025

*   Engineering Foundation course
+   Students may enroll in PHY 231 instead of PHY 234
#   The Jr. Seminar fulfills one Issue and one SWS requirement.
     HNR 312 will also fulfill US Diversity.
     Junior Seminars can be taken when students have >= 45 credits. Online seminars offered each semester.
%   ECO 210 or 211 is required in the engineering curriculum. Also fulfills one SBS Honors requirement.
$ HNR US Diversity requirement can be met with a Jr. Seminar (HNR 312).
&   Completion of EGR 485 and 486 will fulfill the HNR 499 Senior Project requirement.

Mechanical Track:

EGR 226	4th semester winter
EGR 309	4th semester winter
EGR 312	Spring/Summer Co-op
EGR 346	5th semester fall
EGR 409	6th semester spring/summer
EGR 352	Fall co-op
EGR 450	7th semester winter

Mechanical Track Electives:

EGR 224 Intro to Digital Systems (4 credits)
EGR 436 Embedded Systems Interface (4 credits)
EGR 424 Design of Microcontroller Applications (4 credits)
EGR 350 Vibrations (4 credits)

Sensor-Controls Track:

EGR 224	4th semester winter
EGR 223	4th semester winter
EGR 226	Spring/Summer Co-op
EGR 326	5th semester fall
EGR 312	Winter Co-op
EGR 309	6th semester spring/summer
EGR 436	7th semester winter

Sensor-Controls Track Electives:

EGR 409 Machine Design II (4 credits)
EGR 450 Manufacturing Controls (4 credits)
EGR 352 Dynamics and Kinematics of Machinery (4 credits)
EGR 424 Design of Microcontroller Applications (4 credits)