MARIAN UNIVERSITY
Indianapolis ®

Name_____
Student ID_____
Date_____

2020-21 DDEP Math/Electrical Engineering Checklist

GENERAL EDUCATION

I. Foundational Intellectual Skills (12-13 hours)
____FYS110 First Year Seminar
____ ENG112 Writing and Community
____COM101 Public Speaking
____Mathematics (MAT230)

II. Knowledge Acquisition (19-20 hours)
____Science with lab (CHE151)
____HUM210 Humanities Survey Course
____PHL130 Human Nature & Person
____Foreign Language

One course from each group A and B:
Group A
____ EGR327 Engineering Economics
____ ECN200 Introductory Economics
Group B
____PSY101 General Psychology
____PSY220 General Psychology
____GST200 Introduction to Gender Studies
____SOC101 Introduction to Sociology
____SOC175 Introduction to Anthropology

III. Faith, Ethics, and Foundation (6 hours)
____THL105 Introduction to Theology
____Second Approved THL

IV. Greater Depth Cluster
Fulfilled by major requirements

Required Supporting Courses
____ TCM360 Communication in Engineering Practice
____ PHY201 Mechanics I
____PHY202 Heat, Electricity, and Optics

Total Earned General Education Hours_____

MATHEMATICS MAJOR REQUIREMENTS

____MAT 230 Calculus I	4
____MAT 231 Calculus II	4
____MAT 250 Logic and Sets	3
____MAT 305 Calculus III	4
____MAT 310 Linear Algebra	3
____MAT 315 Differential Equations	3
____MAT 322 Stat. Inference & Data Analysis I	3
____MAT 323 Stat. Inference & Data Analysis II	3
____MAT 350 Numerical Methods	3
____MAT 425 Mathematical Modeling	3
____MAT 450 Real Analysis	3
____MAT 490 Mathematics Seminar	3
____CST 171 Procedural Programming	3
____CST 270 Object Oriented Programming	3

COMPUTER ENGINEERING MAJOR REQUIREMENTS

____ENGR195 Intro to the Engineering Profession	1
____ENGR196 Intro to Engineering	3
____ECE201 Linear Circuit Analysis I	3
____ECE202 Linear Circuit Analysis II	3
____ECE207 Electronic Measurement Techniques	1
____ECE208 Electronic Device and Design	1
____ECE210 ECE Sophomore Seminar	1
____ECE255 Introduction to Electronics Analysis	3
____ECE261 Engineering Programming Lab	1
____ECE263 C Programming Class	3
____ECE270 Introduction to Digital System Design	4
____ECE301Signals and Systems	3
____ECE302 Probabilistic Methods in ECE	3
____ECE311 Electric and Magnetic Fields	3
____ECE362 Microprocessor Systems and Interfacing	4
____ECE382 Feedback System Analysis and Design	3
____ECE401 Engineering Ethics and Professionalism	1
____ECE440 Transmission of Information	4
____ECE487 Senior Design I	1
____ECE488 Senior Design II	2
____ME 295 Mechanics and Heat	3
____EE Elective	3
____EE Elective	3
____EE Elective	3
____EE Elective	3
____EE Elective	3

Total Earned Major Hours_____

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2020-21 Dual-Degree Engineering Major
B.S. Mathematics with concentration in Applied Math
& B.S. Electrical Engineering
Sample Five-Year Plan

Year One					
Fall Semester			**Spring Semester**		
Requirement Category	**Course**	**Credit Hours**	**Requirement Category**	**Course**	**Credit Hours**
First Year Seminar	FYS 110	3	Major	MAT 231	4
Major	MAT 230	4	Major	CST171	3
Major	CHE151	4	Major	PHY201	4
Major	*ENGR196*	3	General Education	ENG112	3
Major	EGR195	1	General Education	THL105	3
General Education	COM101	3			
Semester Hours	**18**		**Semester Hours**	**17**	
Cumulative Hours	**18**		**Cumulative Hours**	**35**	
Year Two					
Fall Semester			**Spring Semester**		
Requirement Category	**Course**	**Credit Hours**	**Requirement Category**	**Course**	**Credit Hours**
Major	MAT 305	4	Major	MAT250	3
Major	PHY202	4	Major	MAT315	3
Major	MAT310	3	*Major*	*ECE201*	*3*
Major	MAT211	1	*Major*	*ECE207*	*1*
Major	CST270	3	*Major*	*ECE261*	*1*
Major	ME200	3	*Major*	*ECE263*	*3*
Semester Hours	**18**		**Semester Hours**	**14**	
Cumulative Hours	**53**		**Cumulative Hours**	**67**	
Year Three					
Fall Semester			**Spring Semester**		
Requirement Category	**Course**	**Credit Hours**	**Requirement Category**	**Course**	**Credit Hours**
Major	*ECE202*	3	Major	MAT323	3
Major	*ECE210*	1	*Major*	*ECE311*	3
Major	*ECE270*	4	*Major*	*ECE301*	3
Major	*ECE255*	*3*	Major	MAT350	3
Major	MAT322	3	General Education	Second THL	3
Major	*ECE208*	*1*			
Semester Hours	**15**		**Semester Hours**	**15**	
Cumulative Hours	**82**		**Cumulative Hours**	**97**	
Year Four					
Fall Semester			**Spring Semester**		
Requirement Category	**Course**	**Credit Hours**	**Requirement Category**	**Course**	**Credit Hours**
Major	*ECE302*	3	*Major*	*ECE440*	4
Major	*ECE362*	4	*General Education*	*TCM360*	2
Major	MAT425	3	*Major*	*ECE401*	*1*
Major	*ECE382*	3	*Major*	*EE Elective*	*3*
Major	MAT490	3	*Major*	*EE Elective*	*3*
			General Education	EGR327	3
Semester Hours	**16**		**Semester Hours**	**16**	
Cumulative Hours	**113**		**Cumulative Hours**	**129**	

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Year Five					
Fall Semester			**Spring Semester**		
Requirement Category	**Course**	**Credit Hours**	**Requirement Category**	**Course**	**Credit Hours**
Major	*EE Elec.*	*3*	Major	MAT450	3
General Education	Foreign Language	4	*Major*	*EE Elec.*	3
Major	*EE Elective*	*3*	*Major*	*ECE488*	*2*
General Education	HUM210	*3*	General Education	GST/PSY/SOC	3
Major	*ECE487*	*1*	General Education	PHL130	3
Semester Hours	**14**		**Semester Hours**	**14**	
Cumulative Hours	**143**		**Cumulative Hours**	**157**	

*A minimum 2.0 cumulative GPA and a minimum 2.0 major GPA are required for graduation, so monitor your GPA closely. To meet degree requirements, some disciplines require higher grades in each course or a higher cumulative GPA

This plan is only a sample and will vary by student and course availability.

Courses listed in italics indicate courses taken at IUPUI.