MARIAN UNIVERSITY
Indianapolis ®

Name_____
Student ID_____
Date_____

2020-21 DDEP Chemistry (Chemical Physics)/Mechanical 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 Meaning Through Culture
____PHL 130 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 Human Growth and Development
____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_____

CHEMISTRY MAJOR REQUIREMENTS

____MAT 230 Calculus I	4
____MAT 231 Calculus II	4
____MAT 305 Calculus III	4
____MAT 310 Linear Algebra	3
____MAT 315 Differential Equations	3
____CHE 151 General Chemistry I	4
____CHE 152 General Chemistry II	4
____CHE 300 Analytical Chemistry	5
____CHE 305 Organic Chemistry I	4
____CHE 325 Physical Chemistry I	4
____CHE 326 Physical Chemistry II	4
____CHE 425 Advanced Physical Chemistry	3
____CHE 490 Senior Seminar	3
____CHE 498 Directed Research	2
____PHY 212 Modern Physics	4
____CST 171 Procedural Programming	4

MECHANICAL ENGINEERING MAJOR REQUIREMENTS

____EGR195 Intro to the Engineering Profession	1
____EGR196 Intro to Engineering	3
____ECE204 Intro to Electrical & Electronic Circuits	4
____ME200 Thermodynamics	3
____ME225 ME Lab I	1
____ME250 ME Lab II	1
____ME262 Engr. Design, Ethics & Entrepreneurship	2
____ME270 Base Mechanics	3
____ME272 Mechanics of Materials	3
____ME274 Base Mechanics II	3
____ME310 Fluid Mechanics	3
____ME314 Heat and Mass Transfer	3
____ME325 ME Lab III	1
____ME330 Modeling & Analysis of Dynamic Systems	3
____ME340 Dynamic Systems & Measurements	3
____ME344 Intro to Engineering Materials	3
____ME350 ME Lab IV	1
____ME372 Design of Mechanisms	2
____ME397 Engineering Lab	1
____ME406 Robust Design	1
____ME414 or 497 Thermal-Fluid Sys. or Machine Des.	3
____ME450 ME Lab V	1
____ME462 Capstone Design	3
____ME482 Control Systems Analysis & Design	3
____Technical Elective	3
____Technical Elective	3
____Technical Elective	3
____MAT 322 Statistics I	2

Total Earned Major Hours_____

MARIAN UNIVERSITY
Indianapolis ®

2020-21 Dual-Degree Engineering Major
B.S. Chemistry with concentration in Chemical Physics
& B.S. Mechanical 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	CHE 152	4
Major	CHE151	4	Major	PHY201	4
Major	EGR196	3	General Education	ENG 112	3
Major	EGR195	1	General Education	THL105	3
General Education	COM101	3			
Semester Hours	**18**		**Semester Hours**	**18**	
Cumulative Hours	**18**		**Cumulative Hours**	**36**	

Year Two

Fall Semester			Spring Semester		
Requirement Category	**Course**	**Credit Hours**	**Requirement Category**	**Course**	**Credit Hours**
Major	MAT 305	4	Major	CHE 326	4
Major	PHY202	4	Major	MAT315	3
Major	ME200	3	Major	ECE204	4
Major	ME270	3	Major	ME274	3
Major	CHE 325	4	Major	CST 171	3
Semester Hours	**18**		**Semester Hours**	**17**	
Cumulative Hours	**54**		**Cumulative Hours**	**71**	

Year Three

Fall Semester			Spring Semester		
Requirement Category	**Course**	**Credit Hours**	**Requirement Category**	**Course**	**Credit Hours**
Major	*ME330*	2	Major	PHY 212	4
Major	*ME225/262*	3	*Major*	*ME340*	3
Major	*ME310/325*	4	*Major*	*ME272*	3
Major	CHE 425	3	General Education	EGR327	3
Major	MAT 211	1	General Education	Second THL	3
Major	MAT322	3	*Major*	*ME 350*	*1*
Major	*ME 250*	*1*			
Semester Hours	**17**		**Semester Hours**	**17**	
Cumulative Hours	**88**		**Cumulative Hours**	**105**	

Year Four

Fall Semester			Spring Semester		
Requirement Category	**Course**	**Credit Hours**	**Requirement Category**	**Course**	**Credit Hours**
Major	*ME314*	3	*Major*	*ME414/497*	3
General Education	*TCM360*	2	*Major*	*ME 344*	*3*
General Education	GST/PSY/SOC	3	*Major*	*ME 372*	*3*
Major	CHE 300	5	General Education	Foreign Language	4
Major	CHE 425	3	*Major*	*Technical Elective*	*3*
			Major	*ME 450*	*1*
Semester Hours	**16**		**Semester Hours**	**17**	

MARIAN UNIVERSITY
Indianapolis ®

Name_____
Student ID_____
Date_____

2020-21 DDEP Chemistry (Chemical Physics)/Mechanical Engineering Checklist

Cumulative Hours	**121**		**Cumulative Hours**	**138**	
Year Five					
Fall Semester			**Spring Semester**		
Requirement Category	**Course**	**Credit Hours**	**Requirement Category**	**Course**	**Credit Hours**
Major	CHE 490	3	*Major*	*Technical Elective*	3
Major	CHE 305	4	*Major*	*ME405*	*1*
Major	*ME482*	*3*	*Major*	*ME462*	*3*
Major	MAT 310	3	*Major*	*Technical Elective*	*3*
Major	CHE 498	2	General Education	PHL130	3
			General Education	HUM210	3
Semester Hours	**15**		**Semester Hours**	**16**	
Cumulative Hours	**153**		**Cumulative Hours**	**169**	

*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.