MARIAN UNIVERSITY
Indianapolis ®

Name_____
Student ID_____
Date_____

2022-23 Mechanical Engineering Checklist

GENERAL EDUCATION

I. Faith and Ethics (12 hours)
____THL 105 Intro to Theology
____PHL 130 Human Nature and the Person
____FYS 110 First Year Seminar
____THL 3XX Engineering Ethics

II. Health and Well-Being (6 hours)
____PSY 220 Human Development OR
SOC 101 Intro to Sociology
____ Health & Well-being in Practice I
____ Health & Well-being in Practice II
____ Health & Well-being in Practice III

III. Problem Solving
Fulfilled by major requirements

IV. Cultural and Global Awareness (6 hours)
____HIS 102 History of the Modern World OR HUM 210 Search for Meaning Through Culture
____Language Course OR HUM 210 Search for Meaning Through Culture

V. Communication (6 hours)
____ ENG 112 Writing and Community or
ENG 1XX Transformational Texts
____ COM 101 Public Speaking
***Writing Intensive Course within the major*
**Public Speaking Intensive Course within the major*

VI. Disciplinary Knowledge and Skills
____ Pathway or Minor

Total Earned General Education Hours
_____30 without minor or pathway_____

General Math and Science Requirements (30 hours)

____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 141 General Chemistry I	3
____CHE 141L General Chemistry I Lab	1
____PHY 201 University Physics I	4
____PHY 202 University Physics II	4

Engineering Core Requirements (27 hours)

____EGR 101 Introduction to Engineering	3
____EGR 151 Programming for Engineers	3
____EGR 155 Intro Computer Aided Design	3
____EGR 221 Engineering Mechanics: Statics	3
____EGR 241 Linear Circuit Analysis	3
____EGR 261 Engineering Thermodynamics	3
____*EGR 301 Global Engineering	3
____EGR 317 Engineering Economics	3
____EGR 490 Engineering Senior Design	3

Mechanical Engineering Requirements (48 hours)

____EGR 222 Engineering Mechanics: Dynamics	3
____EGR 226 Mechanics of Materials	3
____EGR 230 Engineering Materials	3
____EGR 326 Engineering Statistics	3
____EGR 365 Fluid Mechanics	3
____EGR 451 Control Systems	3
____MEN 320 Dynamic Systems	3
____MEN 324 Mechanical Systems Modeling	3
____MEN 361 Heat Transfer	3
____MEN 390 Design of Mechanisms	3
____MEN 400 Machine Design and Manufacturing	3
____MEN 430 Experimental System Design	3
____MEN 492 Senior Design II	3
____Mechanical Engineering Elective	3
____Mechanical Engineering Elective	3
____Mechanical Engineering Elective	3

Total Earned Hours__132____

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2022-23 B.S. Mechanical Engineering Major
Sample Four-Year Plan

Year One

Fall Semester			Spring Semester		
Requirement Category	**Course**	**Credit Hrs**	**Requirement Category**	**Course**	**Credit Hrs**
Gen Math & Sci: Calculus I	MAT 230	4	Gen Math & Sci: Calculus II	MAT 231	4
CORE-Intro Engineering	EGR 101	3	Gen Math & Sci: Univ Physics I	PHY 201	4
CORE-Egr Programming	EGR 151	3	Gen Math & Sci: Gen Chem I	CHE 140	3
Gen Ed: Faith & Ethics	FYS 110	3	Gen Math & Sci: Gen Chem I Lab	CHE 141L	1
Gen Ed: Faith & Ethics	THL 105	3	CORE- Comp Aided Design	EGR 155	3
			Gen Ed: Writing	ENG 112	3
Semester Hours		**16**	**Semester Hours**		**18**
Cumulative Hours		**16**	**Cumulative Hours**		**34**

Year Two

Fall Semester			Spring Semester		
Requirement Category	**Course**	**Credit Hrs**	**Requirement Category**	**Course**	**Credit Hrs**
Gen Math & Sci: Calculus III	MAT 305	4	Gen Math & Sci: Differential Eqns	MAT 315	3
Gen Math & Sci: Univ Physics II	PHY 202	4	CORE- Lin Circuit Analysis	EGR 241	3
CORE-Engineering Mechanics	EGR 221	3	MAJ: Engineering Dynamics	EGR 222	3
CORE-Thermodynamics	EGR 261	3	MAJ: Mechanics of Materials	EGR 226	3
Gen Ed: Faith & Ethics	PHL 130	3	MAJ: Engineering Materials	EGR 230	3
Semester Hours		**17**	**Semester Hours**		**15**
Cumulative Hours		**51**	**Cumulative Hours**		**66**

Year Three

Fall Semester			Spring Semester		
Requirement Category	**Course**	**Credit Hrs**	**Requirement Category**	**Course**	**Credit Hrs**
Gen Math & Sci: Linear Algebra	MAT 310	3	Gen Ed: Health/Well Being	PSY/SOC	3
Gen Ed: Health & Well-Being	HWB XXX	1	CORE-Global Engineering	EGR 301	3
Gen Ed: Public Speaking	COM 101	3	MAJ: Engr Statistics	EGR 326	3
MAJ: Exp. Systems Design	MEN 331	3	MAJ: Dynamic Systems	MEN 320	3
MAJ: Heat Transfer	MEN 361	3	MAJ: Mech Sys Modeling	MEN 324	3
MAJ: Fluid Mechanics	EGR 365	3	MAJ: Design of Mechanisms	MEN 390	3
Semester Hours		**16**	**Semester Hours**		**18**
Cumulative Hours		**82**	**Cumulative Hours**		**100**

Year Four

Fall Semester			Spring Semester		
Requirement Category	**Course**	**Credit Hrs**	**Requirement Category**	**Course**	**Credit Hrs**
Gen Ed: Cult Global	F.LANG/HUM	3	Gen Ed: Faith & Ethics-Engr Ethics	THL 3xx	3
Gen Ed: Health & Well-Being	HWB XXX	1	Gen Ed: Health & Well-Being	HWB XXX	1
CORE: Senior Design I	EGR 490	3	MAJ: Senior Design II	MEN 492	3
MAJ: Control Systems	EGR 451	3	MAJ: MEN Program Elective	MEN XXX	3
MAJ: MEN Program Elective	MEN XXX	3	MAJ: MEN Program Elective	MEN XXX	3
Gen Ed: Cult Global	HIS/HUM	3	CORE: Engineering Economics	EGR 317	3
Semester Hours		**16**	**Semester Hours**		**16**
Cumulative Hours		**116**	**Cumulative Hours**		**132**

*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.

Draft C (BQT) Date: 7/26/21