

2022-23 Chemical Engineering Checklist

<p>TRANSFORMATIONAL JOURNEY PROGRAM (TJP)</p> <p>First Year Experience (3 credits) ____ FYS110 First Year Seminar</p> <p>Faith and Ethics (9 credits) ____ THL105 Introduction to Theology ____ PHL130 Human Nature & Person ____ Second THL*</p> <p>Scientific Problem Solving Fulfilled by major requirements</p> <p>Quantitative Problem Solving Fulfilled by major requirements</p> <p>Civics Problem Solving Fulfilled by major requirements (EGR 317)</p> <p>Communication (6 credits) ____ ENG112 Writing and Community ____ COM101 Public Speaking</p> <p>Cultural and Global Awareness (6 credits) ____ World Language (determined by placement) One of the following courses: ____ GLS101 Global Perspectives ____ HUM210 Meaning Through Culture</p> <p>Health and Well-Being (6 credits) ____ HWB110 Holistic Health: Mind, Body, and Spirit One of the following courses: ____ PSY101 General Psychology ____ PSY220 Human Growth and Development ____ SOC101 Introduction to Sociology</p> <p>Broad Integrative Knowledge Outside Major**</p> <ol style="list-style-type: none"> Completion of a minor Completion of a second major Completion of a Pathway <p>*Please refer to catalog or MUHUB Progress tab for a complete list of courses that meet these requirements. **Please refer to catalog or MUHUB Progress tab for a description of acceptable major/minor options.</p>	<p>General Math and Science Requirements (30 hours)</p> <p>____ 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 140 General Chemistry I 3 ____ CHE 141L General Chemistry I Lab 1 ____ PHY 201 University Physics I 4 ____ PHY 202 University Physics II 4</p> <p>Engineering Core Requirements (27 hours)</p> <p>____ 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</p> <p>Chemical Engineering Requirements (12 additional hours in Chemistry and 36 hours in CEN courses totaling 48 hours)</p> <p>____ CHE 142 General Chemistry II 3 ____ CHE 143L General Chemistry II Lab 1 ____ CHE 305 Organic Chemistry I 4 ____ CHE 305L Organic Chemistry I Lab 0 ____ CHE 325 Physical Chemistry I 4 ____ CHE 325L Physical Chemistry I Lab 0 ____ EGR 230 Engineering Materials 3 ____ EGR 326 Engineering Statistics 3 ____ EGR 365 Fluid Mechanics 3 ____ EGR 451 Control Systems 3 ____ CEN 262 Thermodynamics II 3 ____ CEN 361 Transport Phenomena 3 ____ CEN 366 Mass Transfer and Separations 3 ____ CEN 376 Chemical Reaction Engineering 3 ____ CEN 435 Chemical Process Design 3 ____ CEN 492 Senior Design II 3 ____ CEN 4xx Chemical Engr Elective 3 ____ CEN 4xx Chemical Engr Elective 3</p> <p style="text-align: right;">Total Earned Major Hours_135_</p>
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MARIAN UNIVERSITY

Indianapolis®

2022-23 B.S. Chemical 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
Gen Math & Sci: Gen Chemistry I	CHE 140	3	Gen Math & Sci: Univ Physics I	PHY 201	4
Gen Math & Sci: Gen Chem I Lab	CHE 141L	1	CORE: Comp Aided Design	EGR 155	3
CORE: Intro Engineering	EGR 101	3	MAJ: Gen Chemistry II	CHE 142	3
CORE: Programming for Engrs	EGR 151	3	MAJ: Gen Chem II Lab	CHE 143L	1
TJP: First Year Seminar	FYS 110	3	TJP: Holistic Health	HWB 110	3
Semester Hours		17	Semester Hours		18
Cumulative Hours		17	Cumulative Hours		35
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	TJP: Writing and Community	ENG 112	3
CORE: Engr Mechanics: Statics	EGR 221	3	MAJ: Thermodynamics II	CEN 262	3
CORE: Engr Thermodynamics	EGR 261	3	CORE: Lin Circuit Analysis	EGR 241	3
MAJ: Organic Chemistry I	CHE 305	4	MAJ: Engineering Materials	EGR 230	3
MAJ: Organic Chemistry I Lab	CHE 305L	0	TJP: Intro Theology	THL 105	3
Semester Hours		18	Semester Hours		18
Cumulative Hours		53	Cumulative Hours		71
Year Three					
Fall Semester			Spring Semester		
Requirement Category	Course	Credit Hrs	Requirement Category	Course	Credit Hrs
Gen Math & Sci: Linear Algebra	MAT 310	3	TJP: Health & Well-Being	PSY/SOC	3
TJP: Public Speaking	COM 101	3	CORE: Global Engineering	EGR 301	3
MAJ: Physical Chemistry I	CHE 325	4	MAJ: Engineering Stats	EGR 326	3
MAJ: Physical Chemistry I Lab	CHE 325L	0	MAJ: Mass Txfr & Separations	CEN 366	3
MAJ: Transport Phenomena I	CEN 361	3	MAJ: Chem Reaction Engr	CEN 376	3
MAJ: Fluid Mechanics	EGR 365	3			
Semester Hours		16	Semester Hours		15
Cumulative Hours		87	Cumulative Hours		102
Year Four					
Fall Semester			Spring Semester		
Requirement Category	Course	Credit Hrs	Requirement Category	Course	Credit Hrs
TJP: World Language	World Lang.	3	TJP: Faith & Ethics #2	2 nd THL	3
MAJ: Chemical Process Design	CEN 435	3	TJP: Cultural/Global	HUM/GLS	3
MAJ: Control Systems	EGR 451	3	MAJ: Senior Design II	CEN 492	3
MAJ: Chem Engr Elective	CEN 4xx	3	MAJ: Chem Engr Elective	CEN 4xx	3
CORE: Senior Design I	EGR 490	3	CORE: EGR Economics	EGR 317	3
TJP: Human Nature & Person	PHL 130	3			
Semester Hours		18	Semester Hours		15
Cumulative Hours		120	Cumulative Hours		135

*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.