

8 Semester Plan for Industrial Engineering, TAMU-CC (2023-2024)

Updated 11 Apr 2023

1st Year	Course	Course Title	SH	Pre-requisite(s) or Co-requisite(s)
1st Semester (includes triad/tetrad)	ENGL 1301	Writing and Rhetoric I	3	
	HIST 1301	U.S. History to 1865	3	
	MATH 2413	Calculus I	4	Prereq: A grade of C or better in MATH 1316 Trigonometry or MATH 2312 Precalculus, or placement into MATH 2413 Calculus I
	CHEM 1411	General Chemistry I	4	Co-req: SMTE 0093
	ENGR 1201	Introduction to Engineering	2	Prereq: MATH 1314 - College Algebra
	UNIV 1101	University Seminar I	1	
		Total HRS	17	
2nd Semester (includes triad/tetrad)	ENGL 1302 or COMM 1311	Writing and Rhetoric II OR Foundations of Communication	3	Prereq: ENGL 1301 for ENGL 1302
	PHYS 2425	University Physics I	4	Prereq: MATH 2413 Calculus I or placement beyond; co-req: SMTE 0095
	MATH 2414	Calculus II	4	Prereq: A grade of C or better in MATH 2413 Calculus I
	COSC 1330	Programming for Scientists, Engineers, and Mathematicians	3	
	ENGR 1312	Engineering Graphics I	3	Prereq: MATH 1314 - College Algebra
	UNIV 1102	University Seminar II	1	
		Total HRS	18	
2nd Year				
1st Semester	ENGR 2325	Statics	3	Prereq: PHYS 2425 University Physics I; pre-req or co-req: MATH 2414 - Calculus II
	HIST 1302	U.S. History Since 1865	3	
	PHYS 2426	University Physics II	4	Prereq: PHYS 2425 University Physics I and MATH 2414 Calculus II; co-req: SMTE 0095
	IEEN 2302	Engineering Economics	3	Prereq: MATH 2413 Calculus I
	MATH 2415	Calculus III	4	Prereq: A grade of C or better in MATH 2414 Calculus II
		Total HRS	17	
2nd Semester	ENGR 2460	Circuit Analysis	4	Prereq: PHYS 2426 - University Physics II and MATH 2414 - Calculus II; prereq or co-req MATH 3315 - Differential Equations or equivalent; co-req SMTE 0099
	MATH 3315	Differential Equations	3	Prereq: A grade of C or better in MATH 2414
	ENGR 3316	Thermodynamics	3	Prereq: PHYS 2425 University Physics I and MATH 2414 Calculus II
	ENGR 3322	Material Science	3	Prereq: CHEM 1411 General Chemistry I and PHYS 2425 University Physics I
		Total HRS	13	
3rd Year				
1st Semester	MATH 3311	Linear Algebra	3	Prereq: A grade of C or better in MATH 2413 Calculus I
	IEEN 3330	Robotics and Automation	3	Prereq: ENGR 2460 Circuit Analysis
	MATH 3342	Applied Probability and Statistics	3	Prereq: MATH 2413 Calculus I
	ENGR 3350	Manufacturing Processes	3	Prereq: ENGR 1312 Engineering Graphics I and ENGR 3322 Materials Science; co-req SMTE 0099
	POLS 2305	U.S. Government and Politics	3	
		Total HRS	15	
2nd Semester		Language, Philosophy and Culture (Core Course)	3	
	IEEN 3320	Human Factors	3	Prereq: ENGR 1312 Engineering Graphics I; prereq or co-req: MATH 3342 Applied Probability and Statistics
	IEEN 3302	Operations Research	3	Prereq: MATH 2414 – Calculus II; prereq or co-req: MATH 3311 – Linear Algebra
		Technical Elective	3	
	POLS 2306	State and Local Government	3	
		Total HRS	15	
4th Year				
1st Semester	ENGR 4420	Engineering Lab Measurement	4	Prereq: PHYS 2426 University Physics II and (MATH 3342 Applied Probability and Statistics or MATH 3345 Statistical Modeling and Data Analysis); co-req SMTE 0099
	IEEN 4312	Experimental Design and Analysis	3	Prereq: IEEN 3302 Operations Research and IEEN 3320 Human Factors
	IEEN 3324	Human-Systems Interface	3	Prereq: ENGR 1312 Engineering Graphics I; prereq or co-req: IEEN 3320 Human Factors
		Social and Behavioral Sciences (Core Course)	3	
	ENGR 4240	Project Management (Major GPA of 2.25)	2	Prereq: IEEN 3320 Human Factors & IEEN 3302 Operations Research; co-req: SMTE 0099
		Total HRS	15	
2nd Semester	IEEN 4330	Digital Systems Simulations	3	Prereq: IEEN 3302 Operations Research
		Creative Arts (Core Course)	3	
	ENGR 4370	Capstone Projects (Major GPA of 2.25)	3	Prereq: ENGR 4240 Project Management; co-req: SMTE 0099
		Technical Elective	3	
		Technical Elective	3	
		Total HRS	15	

Completed Hours	123
Completed Hours (includes First-Year Seminar I & II)	125