MECHANICAL ENGINEERING TECHNOLOGY (2017-18)

Suggested Four Year Plan

1st Year	Session	Course	Course Title	GRADE	SH	Pre-Requisite or Co-Requisite
1st Semester (includes triad)		COMM 1311	Foundation of Communication *(Core Curriculum Req.)*		3	n/a
		HIST 1301	US History to 1865 *(Core Curriculum Req.)*		3	n/a
		UCCP 1101	First Year Seminar		1	n/a
		MATH 2413	Calculus I *(Mathematics Core Curriculum Course)*		4	MATH 1314 & 1316 or 2312 or Math Placement
		CHEM 1411	General Chemistry I *(Natural Science Core)*		4	MATH 1314 or beyond
		ENGR 1211	Foundations of Engineering I		2	n/a
			TOTAL HRS		17	
2nd Semester		ENGL 1302	Composition II *(Core Curriculum Req.)*		3	ENGL 1301
		HIST 1302	US History since 1865 *(Core Curriculum Req.)*		3	n/a
		UCCP 1102	First Year Seminar		1	n/a
		MATH 2414	Calculus II		4	MATH 2413 Calculus I
		ENGR 1312	Foundations of Engineering II		3	n/a
		PHYS 2425	University Physics I *(Natural Science Core)*		4	MATH 2413 Calculus I
			TOTAL HRS		18	
2nd Year	**Session**	**Course**	**Course Title**		**SH**	**Pre-Requisite or Co-Requisite**
1st Semester		ENTC 2325	Statics		3	PHYS 2425 Phys I
		ENTC 2414	Circuit Analysis I		4	MATH 2413 Calculus I
		PHYS 2426	University Physics II		4	PHYS 2425 Phys I
		COSC 1330	Programming for Scientists, Engineers and Math		3	MATH 1314 College Algebra or beyond
		Creative Arts Core	Choose one ARTS 1303, COMM 1305, MUSI 1306, 1307, THEA 1310, 1351 (Core Curriculum Req.)		3	n/a
			TOTAL HRS		17	
2nd Semester		ENTC 2326	Dynamics		3	ENTC 2325 Statics & MATH 2414 Calculus II
		ENTC 3320*	Thermodynamics		3	MATH 2414 Calc II & PHYS 2425 Phys I *Dynamics ideal
		ENTC 3410*	Materials Science		4	CHEM 1411 (1311/1111) & PHYS 2425 Phys I & ENGR 1211 Found I
		POLS 2305	US Govt & Politics *(Core Curriculum Course)*		3	n/a
			TOTAL HRS		13	
3rd Year	**Session**	**Course**	**Course Title**		**SH**	**Pre-Requisite or Co-Requisite**
		ENTC 3306*	Fluid Mechanics		3	ENTC 2326 Dynamics
		ENTC 4446*	Control Systems I		4	ENTC 2414 Circuit Analysis I
		ENTC 3308*	Strength of Materials		3	ENTC 2325 Statics & ENTC 3410 Materials Science
	ALL	POLS 2306	State & Local Government *(Core Curriculum Course)*		3	n/a
		ENTC 3220*	Thermal/Fluids Lab		2	Pre-Req or Co-Req Entc 3306 Fluid Mechanics and Entc 3320 Thermodynamics
			TOTAL HRS		15	
2nd Semester		ENTC 3302*	Manufacturing Processes		3	ENGR 1312 Found of Eng II ENTC 3408 Str of Matls & ENTC 2326 Dynamics
		ENTC 4320*	Heat Transfer		3	ENTC 3306 Fluid Mech & ENTC 3320 Thermodynamics
		ENTC 3455*	Solid Modeling & Finite Elements		4	ENTC 3308 Strength of Materials
		ENTC 4330*	Solid Mechanics		3	ENTC 3308 Strength of Materials
		ENTC 3210*	Solid Mechanics Lab		2	Pre-req or Co-req ENTC 4330 Solid Mechanics
			TOTAL HRS		15	
4th Year	**Session**	**Course**	**Course Title**		**SH**	**Pre-Requisite or Co-Requisite**
1st Semester		ENTC 4415*	Project Management		4	ENTC 4320 Heat Transfer (Senior Standing)
		ENTC*	Technical Elective		3	Varies
		ENTC*	Technical Elective		3	Varies
		Upper Level Math, Science or Engineering Course*	Elective		3	Varies
		ENTC 3350*	Human Factoring Engineering		3	ENTC 3302 Manufacturing Processes
			TOTAL HRS		16	
2nd Semester		ENTC 4350*	Capstone Project		3	ENTC 4415 Project Management
		ENTC*	Technical Elective		3	Varies
		Language, Philosophy & Culture core	Choose one ENGL 2322,2333,2334 or 2335 or SPAN 3307, 3308 or 3309 or PHIL 1301 or 2306 *(Core Curriculum Req.)*		3	n/a
	ALL	SOCIAL SCIENCE CORE	SOCI 1301 or PSYC 2301 or ECON 2301 or 2302 *(Core Curriculum Req.)*		3	n/a
			TOTAL HRS		12	
		(*Upper division credit)	FOREIGN LANGUAGE			Met if had 2 years in HS or 2 college level courses
			TOTAL HOURS FOR DEGREE PLAN		123	(121 if no UCCP required)
			TOTAL UPPER DIVISION HOURS REQUIRED		56	

TECH ELECTIVES

CHOOSE THREE FROM THE LIST BELOW:

ENTC 3323 Robotics & Automation
PRE-REQS ENTC 3415 Circuit Analysis II

ENTC 4322 Programmable Logic Controllers
PRE REQS ENTC 2414 Circuit Analysis I

ENTC 4335 Energy Conversion
PRE REQS ENTC 3415 Circuit Analysis II

ENTC 3455 Solid Modeling Applications
PRE REQS ENTC 3408 Strength of Materials

ENTC 4490 Selected Topics
PRE REQS - Varies

* Students are responsible for achieving a 2.25 GPA in their major to graduate as well as meeting all graduation requirements.

* See your Faculty Mentor each semester and your Academic Advisor as needed

* You must maintain a minimum GPA of 2.0 throughout your academic career to avoid Academic Probation or Suspension

* You must have at least 45 upper level hours to meet graduation requirements.

Technical Electives					
MEEN	3340	Solid Modeling and Finite Elements 4th year	MEEN	3310	Engineering Analysis for ME
			ENGR	2320	Strength of Materials
MEEN	4325	Energy Conversion 3rd year	ENGR	2316	Thermodynamics
MEEN	4350	Controls, Automation and Robotics 3rd year 2nd sem	MATH	3315	Differential Equations
			ENGR	2360	Circuit Analysis
			ENGR	2326	Dynamics
MEEN	4355	Marine Fabrication 4th year	ENGR	2350	Manufacturing Processes
MEEN	4380	Renewable Energy 3rd year	ENGR	2316	Thermodynamics
			MEEN	4325	Energy Conversion
			ENGR	2360	Circuit Analysis
MEEN	4385	Offshore Energy Management 4th year	MEEN	3345	Heat Transfer
MEEN	4390	Intro to Computational Fluid Dynamics 4th year	MEEN	3345	Heat Transfer
MEEN	4395	Offshore Water Exploration and Desalination Systems 3rd Year	ENGR	2316	Thermodynamics
FUTURE PROPOSED COURSES					
		Aerospace	ENGR	2326	Dynamics
		Fuel Cell	MEEN	3345	Heat Transfer
			CHEM	1311	Chemistry I
			CHEM	1111	Chemistry I Lab
		Plasma Engineering	PHYS	2426	University Physics II
			ENGR	2322	Material Science