## THOMAS JEFFERSON UNIVERSITY

## BACHELOR of SCIENCE in ENGINEERING: MECHANICAL ENGINEERING

2023-2024

Name		Campus key				
LEVEL I (FIRST YEAR) -	35-36 credits	(Prerequisite)	Cr	Sem.	Grade	TR Equiv.
Hallmark Courses - 2	23-24 credits					
FYS-100	Pathways Seminar		1			
	(Not required for transfer students)		•			
WRIT-101/G/S	Writing Seminar I: Written Communicatio		3-4			
AVIS-101	(WRIT-100 may only be used to satisfy free elec	tive credits)	3			
CHEM-103/103L				<u> </u>		
PHYS-201/201L	Physics I w/ Lab	(pre-or co-requisite MATH-112)				_
·	Coloulus I	(MATH-110 Pre-Calculus for Sci. & Engr. may be	•			
MATH-111 MATH-112	Calculus I (Fall) Calculus II (Spring)	required prior to taking MATH-111) (MATH-111)	4 1			-
	Caroaras II (opinig)	(MAIN-III)	⊸.	<u> </u>		_
DEC Core - 3 credits	F: 1: 161 : 0 : 1		_	_		
DECF-102 Engineering Courses	Finding and Shaping Opportunity  – 9 credits		3			_
ENGR-101	Introduction to Engineering (Fall)		3			
ENGR-102	Engineering Drawing	(co-requisite MATH 102, MATH-110 or MATH-111)	3			
ENGR-104	Introduction to Computing					
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LEVEL II (SECOND YEAF	R) - 32 credits	(Prerequisite)	Cr	Sem.	Grade	TR Equiv.
Hallmark Courses - 6	6 credits					
ADIV-2( )	American Diversity	(WRIT-101, AVIS-101)	3			
WRIT-201	Writing Seminar II: Multi-media Commun	it (WRIT-101)	3			
DE0.0 0 III			'-			
DEC Core - 3 credits	Caianas		2			
DECS-2( )	Science	_	٥.			_
	& Math Courses - 23 credits					
PHYS-203/203L	Physics II w/ Lab (Fall)	(PHYS-201/201L)				
MATH-213	Calculus III (Fall)	(MATH-112)				
ENGR-215	Engineering Statics (Fall)	(MATH 112,PHYS 201-201L)				
ENGR-305	Engineering Statistics (Fall)		3			
MATH-225	Differential Equations (Spring)	(MATH-213)	3			
ENGR-218	Engineering Dynamics (Spring)	(ENGR-215; MATH 112, PHYS 201/201L)	3			
ENGR-301	Mechanics of Materials (Spring)	(MATH 112,PHYS 201-201L, ENGR-215)	3			
LEVEL III (THIRD YEAR)	- 30.5 credits	(Prerequisite)	Cr	Sem.	Grade	TR Equiv.
Hallmark Courses - 3	3 credits					
GDIV/GCIT-2( )	Global Diversity <b>or</b> Global Citizenship	(Fall) (WRIT-101, AVIS-101)	3			
, ( )	(Includes World Language at any level)	(1)				
<b>Engineering Courses</b>	- 27.5 credits					
ENGR-302	Design for Manufacturability (Fall)	(ENGR-102)	<del>-</del> 3			
ENGR-311	Fluid Mechanics (Fall)	(ENGR-218)				
ENGR-322	Fund. of Elec. Engg. I (Fall)	(MATH 111, MATH 112, PH)				
ENGR 210	Intro to Materials Science (Fall)	(MATH-110 or 111, CHEM-103/103L)	3			
ENGR-308	Integrated Engr Product Dev (Spring)	(MATH-112,ENGR-104,ENGR-102)	$=\frac{1}{3}$	_===	=====	=====
ENGR-314	Numerical Methods for Engineers(Spring)	(MATH-225, ENGR-104)		<u> </u>		
MENG 407	Thermodynamics (Spring)	(PHYS-201/201L, MATH-112)				
ENGR 405	Engineering Simulations (Spring)	(ENGR 301)				
MENG-301	Machine Design (spring)	(ENGR-218, ENGR 301)	3			
MENG-399	ME Design Seminar (Spring) (pre/co-re	quisite ENGR311, MENG301, MENG407)	0.5			

<u>EL IV (FOURTH YE</u>	AR) - 30 credits	(Prerequisite)	Cr	Sem.	Grade	TR Equ
allmark Course - 9	9 credits					
ETHC-2( )	LTNICS (Fall)	(WRIT-101, AVIS-101)	3			
CGIS-300	Contemporary Global Issues (Fall)	(WRIT-201; GDIV-2XX or GCIT-2XX)	3			
PHIL-499	Philosophies of the Good Life(spring)	( 201, 051) 23131 01 0611 2339	3			
	(ETHC-2XX, ADIV-2XX, GCIT-2XX or GDIV-2XX, C	CGIS-300, DECM-300, Sci Undstg, MATH-111)	_			
EC Core - 3 credits						
DECM-300	Ethnographic Research Methods (Fall)	(MDIT 004 ODIN 000 - 001T 000)	2	П		
		(WRIT-201; GDIV-2XX or GCIT-2XX)	3_			
gineering Courses						
MENG-427	System Dynamics and Controls (Fall)	(ENGR-311, ENGR-218, ENGR. 314)	3			
ENGR-498	Senior Design Project I (Fall)	(MENG399 or ENGR399)	3_			
ENGR-303	Engineering Economics (spring)	(ENGR-305)	3	_===	=====	===
MENG-405	Introduction to Mechatronics (Spring)	(ENGR-322)	3			
MENG-428	Heat Transfer (Spring)	(MENG-407, ENGR 314)	3			
ENGR-4XX	Senior Design Project II (Spring)	(ENGR-498)	3			
		T(		PEDITS.	127.5-128	5
Satisfies DEC caps	rtone requirement		JIAL	MLDIIG.	121.5-120.	.5
	<u> </u>					1
-	I <u>Fundamentals Courses:</u> (MATH-099 does <u>not</u> count to oward graduation credits in the free elective category.)	oward graduation requirements. Ho	owever	, WRIT-100	and ITXA-	
100 <u>can</u> be used t	oward graduation credits in the free elective category.)					
	99 Fundamentals of College Mathematics	(must earn C or better)	3_			
MATH-110 or 10	2 Pre-calculus (Does not count toward degree requirements)		3_			
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Please note Thoma	as Jefferson University residency requirement:					
	University has a residency requirement of 60 credits for	Day Division students. Students m	ust tak	e a minimu	ım of 60	
credits - 12 credit	s must be within the major core; 9 credits must be in Ha		le for a	B.S. degre	e.	
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	ons regarding curriculum and academic policies.	_			ne University	