THOMAS JEFFERSON UNIVERSITY

BACHELOR of SCIENCE in ENGINEERING: **ENGINEERING**

2022-2023

Name _____ ID# _____

LEVEL I (FIRST YEAR) – 34-35 credits		(Prerequisite)	Cr	Sem.	Grade	TR Equiv.
Hallmark Courses – 22-23 credits						
FYS-100	Pathways Seminar (Not required for transfer students)		1 ❑			
WRIT-101/101G	Writing Seminar I: Written Communication (WRTG-100 may only be used to satisfy free elective credits)		3 ❑			
AMST-114	**Topics in American Studies**		3 ❑			
CHEM-103/103L	Chemistry I w/ Lab (Fall)		4 ❑			
PHYS-201/201L	Physics I w/ Lab (Spring)	*(pre-or co-requisite MATH-112)*	4 ❑			
MATH-111	Calculus I (Fall)	*(MATH-110 Pre-calculus for Sci. & Engr. may be required prior to taking MATH-111)*	4 ❑			
MATH-112	Calculus II (Spring)	*(MATH-111)*	4 ❑			
DEC Core - 3 credits						
DECF102	Finding and Shaping Opportunity		3 ❑			
Engineering Courses – 9 credits						
ENGR-101	Introduction to Engineering (Fall)		3 ❑			
ENGR-104	Introduction to Computing		3 ❑			
ENGR-102	Engineering Drawing. *(co-requisite MATH-102, MATH-110 or MATH-111)*		3 ❑			

LEVEL II (SECOND YEAR) – 32-33 credits		(Prerequisite)	Cr	Sem.	Grade	TR Equiv.
Hallmark Courses – 6-7 credits						
ADIV-2( )	American Diversity	*(WRIT-101, DBTU-114)*	3 ❑			
WRIT-201/202	**Writing Seminar II: Multi-media Communication** (WRIT 202 is for transfer students [4 cr])	***(WRIT-101)***	3-4 ❑			
DEC Core - 6 credits						
DECSYS-2( )	Science: *(Select one DECSYS)*		3 ❑			
Engineering, Science & Math Courses – 20 credits						
PHYS-203/203L	Physics II w/ Lab (Fall)	*(PHYS-201/201L)*	4 ❑			
MATH-213	Calculus III (Fall)	*(MATH-112)*	4 ❑			
ENGR-215	Engineering Statics (Fall)	*(PHYS-201/201L; MATH 111)*	3 ❑			
ENGR 305	Engineering Statistics (Fall)	(MATH 112)	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.
GDIV/GCIT-2( )	Global Diversity**...or...**Global Citizenship (Includes World Language at any level)	*(WRIT-101, AMST114)*	3 ❑			
Engineering Courses -						
ENGR-311	Fluid Mechanics (Fall)	*(ENGR-218)*	3 ❑			
ENGR-322	Fund. of Electrical Engineering I (Fall)	*(MATH 111, MATH 112, PHYS-203/203L)*	3 ❑			
MENGR-407	Thermodynamics (Fall)	*(PHYS-201/201L, MATH-112)*	3 ❑			
( )	Designated Technical Elective (Fall)	*(as appropriate)*	3 ❑			
ENGR-308	Integrated Engr Product Dev (Spring)	*(MATH-112,ENGR-104,ENGR-102)*	3 ❑			
ENGR-314	Numerical Methods for Engineers (Spring)	*(MATH-225, ENGR-104)*	3 ❑			
ENGR 210	Introduction to Material Science (Spring)	*(CHEM-103/103L, MATH 110 or 111)*	3 ❑			
	.....or.....ENGR-304 Operations Research I (Spring)	*(MATH-112, ENGR-305)*				

☝	( )	Designated Technical Elective (Spring)	*(as appropriate)*	3	❑		
	ENGR 405	Engineering Simulations	*(ENGR 301)*	3	❑		
	ENGR-399	E Design Seminar (Spring) *(pre/corequisite ENGR311, ENGR322, MENGR407, any two technical electiv*		0.5	❑		

LEVEL IV (FOURTH YEAR) - 30 credits			*(Prerequisite)*	Cr	Sem.	Grade	TR Equiv.
Hallmark Course – 9 credits							
	ETHIC-2( )	Ethics (Fall)	*(WRIT-101, DBTU-114)*	3	❑		
	CGIS 300	**Contemporary Global Issues** (Fall)	*(WRIT-20X; GDIV-2XX or GCIT-2XX)*	3	❑		
	PHIL 499	**Philosophies of the Good Life**		3	❑		
		(ETHIC-2XX, ADIV-2XX, GCIT-2XX or GDIV-2XX, DBTG-300, DECMTHD300, Sci Undstg, MATH111)					
DEC Core - 3 credits							
	DECMTHD-300	Ethnographic Research Methods (Fall)	*(WRIT-20X; GDIV-2XX or GCIT-2XX)*	3	❑		
Engineering Courses – 18 credits							
☝	( )	Designated Technical Elective (Fall)	*(as appropriate)*	3	❑		
**	ENGR-498	Senior Design Project I (Fall)	*(MENGR399 or ENGR399)*	3	❑		
	ENGR-303	Engineering Economics (Spring)	*(ENGR-305)*	3	❑		
	MENGR-405	Introduction to Mechatronics (Spring)	*(ENGR-322)*	3	❑		
☝	( )	Designated Technical Elective (Spring)	*(as appropriate)*	3	❑		
**	ENGR-4XX	Senior Design Project II (Spring)	*(ENGR-498)*	3	❑		

TOTAL CREDITS: 127.5

** Satisfies DEC capstone requirement

☝ **Engineering Concentration**: Select one four-course option for *Designated Technical Electives*

Textile Engineering: TENGR-306, TENGR-308, TENGR-310, TENGR-320

Industrial & Systems Engineering (any four): IENGR-315, IENGR-413, IENGR-415, IENGR-418, ENGR-307

Bioprocess Engineering: BP-402, BP-403, BP-404, BP-405

Custom: *Any four designated technical elective courses from the above and/or ENGR 371 course.*

Introductory and Fundamentals Courses: (MATH-099 does **not** count toward graduation requirements. However, WRTG-100 and ITXA-100 **can** be used toward graduation credits in the free elective category.)

MATH-099	Fundamentals of College Mathematics	*(must earn C or better)*	3	❑		
MATH-110 or -102	Pre-calculus *(Does not count toward degree requirements)*		3	❑		

Surplus credits not used toward degree requirements

Please note Thomas Jefferson University residency requirement:
Thomas Jefferson University has a residency requirement of 60 credits for Day Division students. Students must take a minimum of 60 credits – 12 credits must be within the major core; 9 credits must be in Hallmark courses in order to be eligible for a B.S. degree.

This form should be used as a worksheet in conjunction with the catalog and the Hallmark "menu" of options. Please refer to the University catalog for questions regarding curriculum and academic policies.

COURSE STATUS: ☑ = course to take next semester ☒ = course currently being taken ■ = course completed