

Tidewater or Thomas Nelson Community College
AS in Engineering
2019-2020

The Apprentice School
Mechanical Engineering Program Requirements
2019-2020

Old Dominion University
BS Mechanical Engineering
2019-2020

General Education Courses				
Course#	Course Title	Credit	NNAS Program	ODU Course Equivalents
ENG 111	College Composition I	3	E111 (CC)	ENGL 110C
ENG 112	College Composition II	3	C232 (NNAS) (Course Substitution)	ENGL 231C
HUM	Humanities Elective	3	Humanities Elective (CC)	Liberal Arts Course
HUM	Humanities Elective	3	Humanities Elective (CC)	Liberal Arts Course
SOC SCI	Social Science Elective	3	Social Science Elective (CC)	Liberal Arts Course or Human Behavior
HIS or SS	TNCC: Social Science / TCC: History	3	Social Science Elective (TNCC) or History Elective (TCC)	Liberal Arts Course or Human Behavior
MTH 263	Calculus I	4	M263 (CC)	MATH 211
MTH 264	Calculus II	4	M264 (CC)	MATH 212
CHM 111	College Chemistry	4	C221 (CC)	CHEM 121N/CHEM 122N
CHM 112	College Chemistry	4	C222 (CC)	CHEM 123N/CHEM 124N
SDV 101	Orientation to Engineering and Tech.	1	SDV 101 (CC)	UNIV 100
Total General Education Course Credits		35		Total General Education Course Credits
				35

MAJOR AND OTHER COURSES				
Course #	Course Title	Credit	NNAS Program	ODU Course Equivalents
PHY 241	University Physics I	4	P241 (CC)	PHY 231N
PHY 242	University Physics II	4	P242 (CC)	PHY 232N
MTH 265	Calculus III	4	M265 (CC)	MATH 285 (312 transfer equivalent)
MTH 267	Ordinary Differential Equations	3	M267 (CC)	MATH 280 (307 transfer equivalent)
EGR 110	Engineering Graphics	3	E110 (CC)	MAE 111 (Substitution)
EGR 120	Introduction to Engineering	2	E120 (CC)	ENGN 110
EGR 125/126	TCC: Intro to Engineering Methods (C++) TNCC: Comp. Prog. For Engineers	4	E125 (TCC)/ E126 (TNCC)	CS 150 (ENGN 150 equivalent)
---	Engineering Elective	3	EGR 140/E140 (CC)	MAE 204
---	Engineering Elective	3	EGR 245/E245 (CC)	MAE 205
---	Engineering Electives	4	EGR 246/E246 (CC) & EGR 247/E247 (CC)	MAE 220 & MAE 225
Total Major and Other Course Credits		34		Total General Education Course Credits
				34

ADDITIONAL TRANSFER COURSES (Not required by CC for the AS in Engineering, but satisfied by NNAS Mechanical Engineering program requirements)				
Course Title	Credit	NNAS Program	ODU Course Equivalents	Credit
MTH 161	Precalculus I	3	M161 (CC)	MTH 162M
MTH 162	Precalculus II	3	M162 (CC)	MTH 163
CST 100 *	Principles of Public Speaking	3	C243 (NNAS)	COMM 101R
CAD 151 *	Engineering Drawing Fundamentals I	3	D111 (NNAS) + 40 hrs CAD Training (NNAS)	MET 230
				3

* Required for the BS in Mechanical Engineering at ODU

NOTE: Completed Virginia community college AS satisfies all lower-level General Education requirements.

Note: The lower-division general education requirements will be met by completion of all courses outlined in this program agreement.

Student must earn C or better for courses to transfer.

To participate in this articulation agreement please visit Old Dominion University's website to complete the Letter of Intent:

<http://www.odu.edu/transfer/vccs>

Completion of this articulation agreement alone does not guarantee admission to Old Dominion University. All students must meet the requirements set by the Office of Admissions and the Guaranteed Admissions Agreement (GAA).

Please visit admissions.odu.edu for more information regarding guaranteed admission to Old Dominion University.

Requirements to be completed at ODU

STAT	330	Intro to Probability and Statistics	3
MAE	201	Materials Science	3
MAE	203	Materials Science lab	1
MAE	303	Mechanics of Fluids	3
MAE	305	Mechanical Engineering Lab III	1
MAE	311	Thermodynamics I	3
MAE	340	Computational Methods	3
MAE	312	Thermodynamics II	3
MAE	332	Mechanical Engineering Design	3
MAE	315	Heat and Mass Transfer	3
MAE	433	Mechanical Engineering Design II	3
MAE	336	Electromechanical Systems	3
MAE	434W	Project Design and Management	3
MAE	436	Dynamic Systems and Control	3
MAE	435	Project Design and Management II	3
MAE Option Courses			9
Upper Division General Education			6
Total Credits to be Taken at ODU			56
Total Transfer Credits			81
Total Credits			137

Regina D. McLean 5/27/2020
Signature Date

Regina D. McLean
Training Manager, Academics
Apprentice School

Latitia D. McCane 5-27-20
Signature Date

Dr. Latitia D. McCane
Director, Education
Apprentice School

Brian Payne 5-27-20
Signature Date

Dr. Brian Payne
Vice Provost, Academic Programs
Old Dominion University