ADVANCE
A NOVA | MASON PARTNERSHIP

A.S. Engineering/B.S. Civil & Infrastructure Engineering
2018-19

ADVANCE Program Milestones

1. Students must take SDV 100 or SDV 101 in the first semester at NOVA.
2. Students must begin Developmental coursework in the first semester in ADVANCE at NOVA.
3. Students must take first college-level MTH course and ENG 111 in the semester immediately following the completion of any MTE or ENF courses (excluding summer).
4. In the first 30 credits, students must:
- **a. Complete ENG 111 and ENG 125 with a C or better.**
- **b. Complete the first college-level MTH course with a C or better.**
- **c. Engineering students must begin the calculus sequence and complete Calculus I and II with a B or better.**

5. Students must complete at least six degree-applicable credits with a C or better each fall and spring semester.
6. Students must maintain a 2.5 cumulative GPA

	NOVA DEGREE REQUIREMENT SEQUENCE	Credits	Courses	MASON TRANSFER EQUIVALENT	MASON CORE/DEGREE EQUIVALENT
1	**SDV Course**	1	SDV 100 College Success Skills **OR** SDV 101 Orientation to Engineering	UNIV 100	ELECTIVE
2	**ENG 111**	3	ENG 111 College Composition I	ENGH 101	Written Comm
3	**Social/Behavioral Sciences #1**	3	HIS 101 History of Western Civilization I **OR** HIS 102 History of Western Civilization II **OR** HIS 112 History of World Civilization II	HIST 101 HIST 102 HIST 125	Western Civ
4	**MTH 263**	4	MTH 263 Calculus I	MATH 113	Quant
5	**EGR 120**	2	EGR 120 Introduction to Engineering	ENGR 107	DEGREE
6	**CST Course**	3	CST 100 Principles of Public Speaking **OR** CST 110 Introduction to Communication **OR** CST 126 Interpersonal Communication	COMM 100 COMM 101 COMM 101	Oral Comm
7	**Technical Elective #1**	4	CHM 111 College Chemistry I	CHEM 211-213	NAT SCIENCE
8	**ENG Course**	3	ENG 125 Introduction to Literature	ENGH 201	Literature
9	**MTH 264**	4	MTH 264 Calculus II	MATH 114	DEGREE
10	**Humanities/Fine Arts #1**	3	ART 101 History and Appreciation of Art I **OR** ART 102 History and Appreciation of Art II **OR** CST 130 Introduction to Theatre **OR** CST 151 Film Appreciation I **OR** MUS 121 Music Appreciation I	ARTH 200 ARTH 201 THR 101 ENGH L372 MUSI 101	Arts
11	**Social/Behavioral Sciences #2**	3	ECO 202 Principles of Microeconomics	ECON 103	Soc/Behav
12	**MTH 265**	4	MTH 265 Calculus III	MATH 213	DEGREE
13	**Technical Elective #2**	3	EGR 126 Computer Programming for Engineers	CDS 130	Info Tech
14	**Technical Elective #3**	3	CIV 280 Intro to Environmental Engineering	CEIE L355	DEGREE
15	**PHY 231**	5	PHY 231 General University Physics I	PHYS 160-161-266	NAT SCIENCE
16	**Humanities/Fine Arts #2**	3	REL 100 Introduction to the Study of Religion **OR** REL 231 Religions of the World I	RELI 100 RELI 212	Global
17	**Technical Elective #4**	3	EGR 240 Solid Mechanics (Statics)	CEIE 210	DEGREE
18	**PHY 232**	5	PHY 232 General University Physics II	PHYS 260-261-XXX	DEGREE
19	**Technical Elective #5**	3	CIV 240 Fluid Mechanics and Hydraulics	CEIE 240	DEGREE
20	**Technical Elective #6**	3	EGR 246 Mechanics of Materials	CEIE L310 or ME 212	DEGREE
21	**MTH 267**	3	MTH 267 Differential Equations	MATH 214	DEGREE
A. S. ENGINEERING DEGREE TOTAL		**68**			

For academic policies and procedures, please see NOVA catalog - http://www.nvcc.edu/catalog/index.html

	MASON DEGREE REQUIREMENT SEQUENCE	Credits	Course	MASON CORE/DEGREE EQUIVALENT
22	**Gen Ed: Written Communication (Upper level)**	3	ENGH 302 Advanced Composition (Natural Science Section)	Written Comm
23	**Statistics**	3	STAT 344 Probability and Statistics for Engineers	DEGREE
24	**Civil Engineering**	3	CEIE 203 Geomatics and Engineering Graphics	DEGREE
25	**Civil Engineering**	3	CEIE 301 Engineering & Econ Models on Civil Engineering	DEGREE
26	**Civil Engineering**	0	CEIE 304 Junior Engineering Competency Exam	DEGREE
27	**Civil Engineering**	3	CEIE 331 Soil Mechanics	DEGREE
28	**Civil Engineering**	3	CEIE 340 Water Resources Engineering	DEGREE
29	**Physics**	1	PHYS 266 Introduction to Thermodynamics	DEGREE
30	**Civil Engineering**	3	CEIE 311 Structural Analysis	DEGREE
31	**Civil Engineering**	3	CEIE 360 Introduction to Transportation Engineering	DEGREE
32	**Civil Engineering**	3	CEIE 370 Construction Systems	DEGREE
33	**Biology**	3	BIOL 107 Intro Biology II Lecture **OR** BIOL 177 Ecological Applications	DEGREE
34	**Civil Engineering**	0	CEIE 404 Senior Engineering Competency Examination	DEGREE
35	**Civil Engineering**	1	CEIE 409 Professional Practice and Management in Engr	DEGREE
36	**Technical Electives**	3	CEIE 4xx Technical Core Electives*	DEGREE
37	**Technical Electives**	3	CEIE 4xx Technical Core Electives*	DEGREE
38	**Technical Electives**	3	CEIE 4xx Technical Core Electives*	DEGREE
39	**Technical Electives**	3	CEIE 4xx Technical Electives*	DEGREE
40	**Technical Electives**	3	CEIE 4xx Technical Electives*	DEGREE
41	**Technical Electives**	3	CEIE 4xx Technical Core Electives*	DEGREE
42	**Technical Electives**	3	CEIE 4xx Technical Electives*	DEGREE
43	**Technical Electives**	3	CEIE 4xx Technical Electives*	DEGREE
44	**Civil Engineering/Synthesis**	3	CEIE 490 Senior Design Project	DEGREE
B.S. CEIE DEGREE TOTAL		**127**		

Denotes a course that must be taken at George Mason University. Please see your Success Coach to enroll.

***For approved CEIE Technical Electives and Technical Core Electives, please visit - https://catalog.gmu.edu/colleges-schools/engineering/civil-environmental-infrastructure/civil-infrastructure-engineering-bs/#requirementstext**

For academic policies and procedures, please see Mason catalog - https://catalog.gmu.edu/policies/

Students seeking a bachelor's degree must apply at least 45 credits of upper-level courses (numbered 300 or above) toward graduation requirements