

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 Science #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 100 COMM 101	Oral Comm
7	ENG Course	3	ENG 125 Introduction to Literature	ENGH 201	Literature
8	MTH 264	4	MTH 264 Calculus II	MATH 114	DEGREE
9	PHY 231	5	PHY 231 General University Physics I	PHYS 160-161-266	NAT SCIENCE
10	Technical Elective #1	3	ECE 101 Intro to Electrical and Computer Engineering	ECE 101	DEGREE
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	4	CSC 201 Computer Science I	CS 112	DEGREE
14	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
15	PHY 232	5	PHY 232 General University Physics II	PHYS 260-261-XXX	NAT SCIENCE
16	MTH 267	3	MTH 267 Differential Equations	MATH 214	DEGREE
17	Technical Elective #3	3	EGR 251 Basic Electric Circuits	ECE 285	DEGREE
18	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
19	Technical Elective #4	3	EGR 252 Basic Electric Circuits II	See #21	DEGREE
20	Technical Elective #5	3	ECE 201 Intro to Signal Analysis	ECE 201	DEGREE
21	Technical Elective #6	1	EGR 255 Electric Circuits Laboratory	ECE 286 & ECE XXX	DEGREE
A. S. ENGINEERING DEGREE TOTAL		66			

Students may select a concentration:

Bioengineering, Communications and Signal Processing, Computer Engineering, Control Systems, Electronics
Concentration requirements may also meet some or all of the Advanced Engineering Lab and Technical Elective requirements.

MASON DEGREE REQUIREMENT SEQUENCE		Credits	Course	MASON EQUIVALENT
22	Electrical Engineering	3	ECE 220 Signal and Systems I	DEGREE
23	Computer Science	3	CS 222 Computer Programming for Engineers	DEGREE
24	Electrical Engineering	4	ECE 331 Digital System Design AND ECE 332 Digital Electrical and Logic Design Lab	DEGREE
25	Mathematics and Statistics	3	MATH 203 Linear Algebra	DEGREE
26	Gen Ed: Written Communication (Upper level)	3	ENGH 302 Advanced Composition (Natural Science Section)	Written Comm
27	Electrical Engineering	3	ECE 421 Classical Systems and Control Theory	DEGREE
28	Electrical Engineering	4	ECE 333 Linear Electronics I AND ECE 334 Linear Electronics Lab I	DEGREE
29	Mathematics and Statistics	3	STAT 346 Probability for Engineers	DEGREE
30	Technical Electives	3	Technical Elective**	DEGREE
31	Electrical Engineering	3	ECE 433 Linear Electronics II	DEGREE
32	Electrical Engineering	3	ECE 445 Computer Organization	DEGREE
33	Electrical Engineering	3	ECE 460 Communication and Information Theory	DEGREE
34	Advanced Engineering Labs	1	Advanced Engineering Lab**	DEGREE
35	Technical Electives	3	Technical Elective**	DEGREE
36	Electrical Engineering	3	ECE 305 Electromagnetic Theory	DEGREE
37	Electrical Engineering	1	ECE 491 Engineering Seminar	DEGREE
38	Electrical Engineering	1	ECE 492 Senior Advanced Design Project I	DEGREE
39	Advanced Engineering Labs	1	Advanced Engineering Lab**	DEGREE
40	Technical Electives	3	Technical Elective**	DEGREE
41	Technical Electives	3	Technical Elective**	DEGREE
42	Electrical Engineering	2	ECE 493 Senior Design Project II	DEGREE
43	Physics	4	PHYS 262 University Physics III AND PHYS 263 University Physics III Lab	DEGREE
B.S. ECE DEGREE TOTAL		126		

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

*All associated lab courses must be "in-person". Hybrid or online formats will not be accepted.

**For approved Technical Electives or Advance Engineering Lab courses, please visit -

<https://catalog.gmu.edu/colleges-schools/engineering/electrical-computer/electrical-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