



**THE GOVERNOR'S SCHOOL**  
 for  
**SCIENCE AND TECHNOLOGY**  
**Program Model 2025-2026 SY**

ENGINEERING STRAND		Prerequisites: Biology, Chemistry, and Math minimum of Precalculus		
Grade	Science	Research	Math	Credits
11	<b>Calculus-based Engineering Physics I</b> 2 HS Science VPCC - PHY 241, 4 credits	<b>Research Methodology &amp; Ethics</b> 1 HS Elective VPCC: MTH 245 3 credits	<b>Calculus</b> 1 HS Math VPCC - MTH 263 4 credits VPCC - MTH 264, 4 credits	4 HS credits VPCC 15 credits
			<b>Multivariable &amp; Linear Algebra</b> 1 HS Math VPCC - MTH 265, 4 credits VPCC - MTH 266, 3 credits	4 HS credits VPCC 14 credits
12	<b>Calculus-based Engineering Physics II</b> 2 HS Science VPCC - PHY 242, 4 credits	<b>Honors Research &amp; Mentorship</b> 2 HS Electives VPCC: NAS 206, 3 credits	<b>Calculus</b> 1 HS Math VPCC - MTH 263, 4 credits VPCC - MTH 264, 4 credits	5 HS credits VPCC 15 credits
			<b>Differential Equations</b> 1 HS Math VPCC - MTH 267, 3 credits	5 HS credits VPCC 10 credits
			<b>Multivariable &amp; Linear Algebra</b> 1 HS Math VPCC - MTH 265, 4 credits VPCC - MTH 266, 3 credits	5 HS credits VPCC 14 credits

BIOLOGICAL SCIENCE STRAND		Prerequisites: Biology, Chemistry, and Math minimum of Algebra II / Trig		
Grade	Science	Research	Math	Credits
11	<b>Advance Chemical Analysis</b> 2 HS Science VPCC: CHM 111, 4 credits VPCC: CHM 112, 4 credits	<b>Research Methodology &amp; Ethics</b> 1 HS Elective VPCC: MTH 245 3 credits	<b>Precalculus</b> 1 HS Math VPCC - MTH 161, 3 credits VPCC - MTH 162, 3 credits	4 HS credits VPCC 17 credits
			<b>Calculus</b> 1 HS Math VPCC - MTH 263, 4 credits VPCC - MTH 264, 4 credits	4 HS credits VPCC 19 credits
			<b>Multivariable &amp; Linear Algebra</b> 1 HS Math VPCC - MTH 265, 4 credits VPCC - MTH 266, 3 credits	4 HS credits VPCC 17 credits
12	<b>Advanced Biological Analysis</b> 2 HS Science VPCC: BIO 101, 4 credits VPCC: BIO 102, 4 credits	<b>Honors Research &amp; Mentorship</b> 2 HS Electives VPCC: NAS 206, 3 credits	<b>Calculus</b> 1 HS Math VPCC - MTH 263, 4 credits VPCC - MTH 264, 4 credits	5 HS credits VPCC 19 credits
			<b>Differential Equations</b> 1 HS Math VPCC - MTH 267, 3 credits	5 HS credits VPCC 14 credits
			<b>Multivariable &amp; Linear Algebra</b> 1 HS Math VPCC - MTH 265, 4 credits VPCC - MTH 266, 3 credits	5 HS credits VPCC 18 credits

COMPUTATIONAL SCIENCE STRAND		Prerequisites: Biology, Chemistry, and Math minimum of Algebra II / Trig		
Grade	Science	Research	Math	Credits
11	<b>Computational Physics:</b> Algebra-based 2 HS Science VPCC: PHY 201, 4 credits VPCC: PHY 202, 4 credits	<b>Research Methodology &amp; Ethics</b> 1 HS Elective VPCC: MTH 245 3 credits	<b>Precalculus</b> 1 HS Math VPCC - MTH 161, 3 credits VPCC - MTH 162, 3 credits	4 HS credits VPCC 17 credits
			<b>Calculus</b> 1 HS Math VPCC - MTH 263, 4 credits VPCC - MTH 264, 4 credits	4 HS credits VPCC 19 credits
			<b>Multivariable &amp; Linear Algebra</b> 1 HS Math VPCC - MTH 265, 4 credits VPCC - MTH 266, 3 credits	4 HS credits VPCC 18 credits
12	<b>Engineering Design, Innovation &amp; Entrepreneurship</b> 2 HS Science VPCC: CSC 221, 222, 6 credits	<b>Honors Research &amp; Mentorship</b> 2 HS Electives VPCC: NAS 206, 3 credits	<b>Calculus</b> 1 HS Math VPCC - MTH 263, 4 credits VPCC - MTH 264, 4 credits	5 HS credits VPCC 17 credits
			<b>Differential Equations</b> 1 HS Math VPCC - MTH 267, 3 credits	5 HS credits VPCC 12 credits
			<b>Multivariable &amp; Linear Algebra</b> 1 HS Math VPCC - MTH 265, 4 credits VPCC - MTH 266, 3 credits	5 HS credits VPCC 16 credits

**IMPORTANT INFORMATION:**

It is imperative that all students meet with their high school counselor to ensure that the requirements for the Advanced Diploma are met.

Dual enrollment credits and fees, determined by VCCS and VPCC, are not guaranteed and may change throughout the school year.