

GSST Program Model 2023-2024 SY

* College Credits Subject to Annual Review *

ENGINEERING STRAND		Prerequisites: Biology, Chemistry, and Math minimum of PreCalculus		
Grade	Science	Research	Math	Credits
11	Calculus-based Engineering Physics I 2 HS Science VPCC - PHY 241, 4 credits	Research Methodology & Ethics 1 HS Elective	Calculus 1 HS Math VPCC - MTH 263, 4 credits VPCC - MTH 264, 4 credits	4 HS credits VPCC 12 credits
			MultiVariable Calculus 1 HS Math VPCC - MTH 265, 4 credits	4 HS credits VPCC 8 credits
12	Calculus-based Engineering Physics III & IV 2 HS Science VPCC - PHY 243, 3 credits	Honors Research & Mentorship 2 HS Electives VPCC - NAS 206, 3 credits	Calculus 1 HS Math VPCC - MTH 263, 4 credits VPCC - MTH 264, 4 credits	5 HS credits VPCC 14 credits
			MultiVariable Calculus 1 HS Math VPCC - MTH 265, 4 credits	5 HS credits VPCC 10 credits
			Linear Algebra 1 HS Math VPCC - MTH 266, 3 credits	5 HS credits VPCC 9 credits
			Differential Equations 1 HS Math VPCC - MTH 267, 3 credits	5 HS credits VPCC 9 credits

* It is imperative that students meet with their school counselor to ensure requirements for Advanced Diploma are met

** Dual enrollment credits and fees (determined by VCCS & VPCC) are not guaranteed and are subject to change

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BIOLOGICAL SCIENCE STRAND		Prerequisites: Biology, Chemistry, and Math minimum of Algebra II / Trig <i>Recommended students take Physics at their home school division</i>		
Grade	Science	Research	Math	Credits
11	Advanced Chemical Analysis 2 HS Science VPCC - CHM 111, 4 credits VPCC - CHM 112, 4 credits	Research Methodology & Ethics 1 HS Elective	PreCalculus 1 HS Math VPCC - MTH 161, 3 credits VPCC - MTH 162, 3 credits	4 HS credits VPCC 14 credits
			Calculus 1 HS Math VPCC - MTH 263, 4 credits VPCC - MTH 264, 4 credits	4 HS credits VPCC 16 credits
			MultiVariable Calculus 1 HS Math VPCC - MTH 265, 4 credits	4 HS credits VPCC 12 credits
12	Advanced Biological Analysis 2 HS Science VPCC - BIO 101, 4 credits VPCC - BIO 102, 4 credits	Honors Research & Mentorship 2 HS Electives VPCC - NAS 206, 3 credits	Calculus 1 HS Math VPCC - MTH 263, 4 credits VPCC - MTH 264, 4 credits	5 HS credits VPCC 19 credits
			MultiVariable Calculus 1 HS Math VPCC - MTH 265, 4 credits	5 HS credits VPCC 15 credits
			Linear Algebra 1 HS Math VPCC - MTH 266, 3 credits	5 HS credits VPCC 14 credits
			Differential Equations 1 HS Math VPCC - MTH 267, 3 credits	5 HS credits VPCC 14 credits

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COMPUTATIONAL SCIENCE STRAND		Prerequisites: Biology, Chemistry, and Math minimum of Algebra II / Trig		
Grade	Science	Research	Math	Credits
11	Computational Physics 2 HS Science VPCC - PHY 201, 4 credits VPCC - PHY 202, 4 credits	Research Methodology & Ethics 1 HS Elective	PreCalculus 1 HS Math VPCC - MTH 161, 3 credits VPCC - MTH 162, 3 credits	4 HS credits VPCC 14 credits
			Calculus 1 HS Math VPCC - MTH 263, 4 credits VPCC - MTH 264, 4 credits	4 HS credits VPCC 16 credits
			MultiVariable Calculus 1 HS Math VPCC - MTH 265, 4 credits	4 HS credits VPCC 12 credits
12	Computational Science: Engineering Design, Innovation & Entrepreneurship (EDIE) 2 HS Science	Honors Research & Mentorship 2 HS Electives VPCC - NAS 206, 3 credits	Calculus 1 HS Math VPCC - MTH 263, 4 credits VPCC - MTH 264, 4 credits	5 HS credits VPCC 11 credits
			MultiVariable Calculus 1 HS Math VPCC - MTH 265, 4 credits	5 HS credits VPCC 7 credits
			Linear Algebra 1 HS Math VPCC - MTH 266, 3 credits	5 HS credits VPCC 6 credits
			Differential Equations 1 HS Math VPCC - MTH 267, 3 credits	5 HS credits VPCC 6 credits

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