SIENAcollege
Physics and Astronomy

Computational Science BS[1] - 4 Years

Fall Year 1		Spring Year 1	
PHYS 130: General Physics I[2]	4	*PHYS 140: General Physics II*	4
PHYS 132: General Physics Review	0	PHYS 142: General Physics Review	0
MATH 110: Calculus I[3]	4	*MATH 120: Calculus II*	4
FYSM 100: First-Year Seminar	3	FYSM 101: First-Year Seminar	3
CSIS 110 (CS Intro) or CSIS 200 (tools for Phys.)	3	*CSIS 120: Introduction to Programming*	4

Fall Year 2		Spring Year 2	
PHYS 220: Modern Physics[4]	4	*PHYS 250: Computational Physics*	3
SCDV 230: Electronic Instrumentation	4	1 from[5] MATH 240/PHYS 350/CSIS 310	3
MATH 210: Calculus III	4	MATH 230: Linear Algebra	3
CSIS 210: Data Structures	3	*CDE*	3

Fall Year 3		Spring Year 3	
MATH 250: Discrete Structures I	4	*MATH 325: Differential Equations*	3
CSIS 380: Computer Graphics	3	CSIS 385: Analysis of Algorithms	3
CDR	3	1 from MATH 240/PHYS 350/CSIS 310	3
CDP	3	CDH	3

Fall Year 4		Spring Year 4	
PHYS 310: Mechanics I	3	1 from MATH 240/PHYS 350/CSIS 310	3
CFD	3	1 Elective from: *CSIS 225* or CSIS 400	3
CDS	3	CFJ	3
CDA	3	CFH	3
		1 project/capstone from: CSIS499/MATH499/PHYS470/SCDV480	3

[1] This track guarantees a minor Computer Science, and a minor in Physics. Any additional course between MATH 300-470 will grant also a minor in Mathematics. All minors must be declared.

A minimum of 120 credit-hours is required to graduate (average 15 credit-hours per semester). Courses in italics have a lab component (generally indicating a larger time commitment).

[2]General Physics satisfies the Natural Science Core (CDN) requirement.

[3]Calculus satisfies the Quantitative Core (CDQ) requirement.

[4]Modern Physics satisfies the Natural World Franciscan Core (CFN) requirement.

[5] MATH240, PHYS350 and CSIS310 are offered with two- or three-year rotation. Please plan accordingly.