CMDA Major Requirements

Physics Option

Virginia Tech

CMDA Major Requirements

Freshman

- PHYS 2305 Foundations of Physics
- CS 1114 Intro to Software Design
- Pre: MATH 1226

Sophomore

- PHYS 2306 Foundations of Physics
- CS 2114 Software Design & Data Structures
- MATH 1226 Calculus of a Single Variable I
- MATH 2214 Intro to Linear Algebra
- CMDA 2005 Integrated Quantitative Science I

- CMDA 2006 Integrated Quantitative Science II
- MATH 2214 Intro to Differential Eqns

- CMDA 2005 Integrated Quantitative Science I
- MATH 2204 Intro to Multivariable Calc

- STAT 3006 Stat Methods II

- STAT 3104 Probability and Distributions

Senior

- CMDA 3605 Math Modeling I
- CMDA 3606 Math Modeling II
- CMDA 4654 Intermediate Data Analytics & ML

- CMDA 4654 (CMDA Capstone) requires the prerequisite of CMDA 3605, 3634, and 3654. Students are strongly encouraged to also take CMDA 3606 and 4654 before the CMDA Capstone.

Freshman

- PHYS 2305 Foundations of Physics
- CS 1114 Intro to Software Design
- MATH 1226 Calculus of a Single Variable I
- MATH 2214 Intro to Linear Algebra
- CMDA 2005 Integrated Quantitative Science I

Sophomore

- PHYS 2306 Foundations of Physics
- CS 2114 Software Design & Data Structures
- MATH 1226 Calculus of a Single Variable I
- MATH 2214 Intro to Linear Algebra
- CMDA 2005 Integrated Quantitative Science I

- CMDA 2006 Integrated Quantitative Science II
- MATH 2214 Intro to Differential Eqns

- CMDA 2005 Integrated Quantitative Science I
- MATH 2204 Intro to Multivariable Calc

- STAT 3006 Stat Methods II

- STAT 3104 Probability and Distributions

Junior

- PHYS 4755 Intro to Comp. Physics
- CS 2114 Software Design & Data Structures
- CMDA 3634 CS Foundations of CMDA
- Pre: MATH 2214

- PHYS 4756 Intro to Comp. Physics
- MATH 2214 Intro to Differential Eqns

- CMDA 3605 Math Modeling I
- CMDA 3606 Math Modeling II

- CMDA 4864 CMDA Capstone Project

Senior

- CMDA 4864 CMDA Capstone Project

+ 15 credits of Physics electives