



# Quantum Computing

## Year One

Fall Semester		
EN	1103	English Composition I
MA	1713	Calculus I
CSE	1284	Intro to Programming
DSCI	2013	Data Science Literacy
PH	1001	*Intro to Physics
		Social Science

Spring Semester		
EN	1113	English Composition II
MA	1723	Calculus II
CSE	1384	Intermediate Programming
DSCI	2012	Data Wrangling Lab
PH	2213	Physics I

## Year Two

Fall Semester		
MA	2733	Calculus III
CSE	2813	Discrete Structures
DSCI	3013	Data Acquisition
PH	2223	Physics II (with lab)
ST	3123	Statistical Inference

Spring Semester		
DSCI	3012	Lab - Descr., Analysis, Inference
CSE	2383	Data Structures & Analysis of Algorithms
MA	3113	Intro to Linear Algebra
PHI	1113	Intro to Logic
PH	3613	Modern Physics
		Creative Discovery

## Year Three

Fall Semester		
DSCI	3032	Lab - Artificial Intelligence
CSE	4633	Artificial Intelligence
DSCI	3022	Data Visualization Lab
		Public Speaking Course
PH	2233	Physics III (with lab)
DSCI	4013	Data Visualization

Spring Semester		
MA	4523	Intro to Probability
CSE	3763	Legal & Ethical Issues Computing
PH	4163	Foundations in Quantum Computing
		Written Communication Course
BIS	3233	Management Information Systems

## Year Four

Fall Semester		
DSCI	2022	Lab - Cloud, Quantum Computing, HPC
PH	4413	**Thermal Physics
MA	2743	Calculus IV
CSE	4503	Database Management Systems
DSCI	4553	Senior Capstone One

Spring Semester		
MA	3253	Differential Equations
PH	4713	Intro to Quantum Principles
PH	4813	**Solid State Physics
		Humanities
DSCI	4663	Senior Capstone Two

**\*\*Pathway 1: Required Courses**

PH 4152 Modern Physics Lab

PH 4143 Intermed Laboratory

**\*\*Pathway 2: Choose 2 courses from the following list:**

PH 3063 Astrophysics

PH 4413 Thermal Physics

PH 4813 Solid State Physics

PH 4323 Electomag Fields I

PH 4213 Intermediate Mechanics I

PH 1063 Descriptive Astronomy

PH 4113 Electric Circuit Science

PH 4433 Computational Physics

PH 4513 Optics

PH 4613 Nuclear Particle Physics

PH 4723 App of Quantum Mech

PH 4990 Special Topics