

# QUANTUM INFORMATION TECHNOLOGY UNDERGRADUATE CERTIFICATE

## Introduction

The goal of this certificate is to better prepare students and working professionals to enter into the quantum information technology workforce and for those wanting to learn more about quantum computing and quantum technologies.

## Program Delivery

- This certificate is an on-campus program.

## Declaring This Certificate

Students interested in completing this certificate should complete this form: CLAS Undergraduate Certificate Intent to Declare Form ([https://ucdenver.co1.qualtrics.com/jfe/form/SV\\_2hNYIHqVx0Ta0Dk/](https://ucdenver.co1.qualtrics.com/jfe/form/SV_2hNYIHqVx0Ta0Dk/)), which requests that the certificate be added to your student record. Once added, you will be able to run a certificate degree audit. The certificate degree audit should be used in collaboration with the Certificate Advisor to ensure successful completion of the requirements.

Students should then work with Michael "Bodhi" Rogers ([michael.b.rogers@ucdenver.edu](mailto:michael.b.rogers@ucdenver.edu)) – the certificate advisor, to ensure completion of all certificate requirements.

These program requirements are subject to periodic revision by the academic department, and the College of Liberal Arts and Sciences reserves the right to make exceptions and substitutions as judged necessary in individual cases. Therefore, the College strongly urges students to consult regularly with their Physics advisor to confirm the best plans of study before finalizing them.

## Completing This Certificate

Students must also complete the CLAS Undergraduate Certificate Completion Verification Form, ([https://ucdenver.co1.qualtrics.com/jfe/form/SV\\_eyPLZl6vVh0wG8K/](https://ucdenver.co1.qualtrics.com/jfe/form/SV_eyPLZl6vVh0wG8K/)) before graduation, in order to confirm completion of their certificate. The certificate advisor will confirm that your certificate has been successfully completed, and will work with campus partners to apply the certificate to your transcript.

Students must fill out the Certificate Completion Form before the deadlines below, to ensure the certificate is applied to your transcript correctly. If you are a non-degree seeking student, please fill out this form in the term in which you intend to complete your certificate.

Spring semester – **April 1**  
 Summer semester – **July 1**  
 Fall semester – **November 1**

## General Requirements

Students must satisfy all requirements as outlined below and by the department offering the certificate.

- Click here (<http://catalog.ucdenver.edu/cu-denver/undergraduate/academic-policies-procedures/>) for information about Academic Policies

## Certificate Requirements

- Students must complete a minimum of 12 credit hours.
- Students must earn a minimum grade of C- (1.7) in all course applied to the certificate and must achieve a minimum cumulative certificate GPA of 1.7. All graded attempts in required and elective courses are calculated in the certificate GPA. Courses taken using P+/P/F or S/U grading cannot apply to certificate requirements.
- Students must complete all coursework with CU Denver faculty.
- All prerequisites for program courses must be met.
- All requirements must be met within a five-year period

Code	Title	Hours
<b>Complete the following courses:</b>		<b>12</b>
PHYS 4678	Quantum Computing	
or ELEC 467I	Quantum Computing	
PHYS 4679	Quantum Computing Algorithms	
or ELEC 4679Q	Quantum Computing Algorithms	
PHYS 4680	Quantum Computing Technology	
or ELEC 468I	Quantum Computing Technology	
PHYS 4681	Quantum Technology Systems	
or ELEC 468I	Quantum Technology Systems	
<b>Total Hours</b>		<b>12</b>

To learn more about the Student Learning Outcomes for this program, please visit our website (<https://clas.ucdenver.edu/physics/academics/program-learning-goals/>).