QUANTUM COMPUTING (Z157)

Graduate Certificate Program
College: Computer, Mathematical, and Natural Sciences

ABSTRACT

The Graduate Certificate in Quantum Computing introduces the applicants to quantum computing and an overview of its current state. Participants explore machine learning and identify areas where quantum computing can impact this discipline. We explore applications of quantum computing to optimization, chemistry, encryption, information theory and communications. Participants will have the opportunity to apply learning through hands-on exercises and experiential learning. No prior knowledge in quantum physics or quantum computing is necessary.

FINANCIAL ASSISTANCE

See: https://exst.umd.edu/professionals-post-baccalaureates/ professional-graduate-programs/science-academy/tuition-fees (https:// exst.umd.edu/professionals-post-baccalaureates/professional-graduate- programs/science-academy/tuition-fees/) for information about fees, payment plans, and financial aid.

CONTACT

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Website: https://cmns.umd.edu/graduate/science-academy/quantum- computing/graduate-certificate **(**https://cmns.umd.edu/graduate/ science-academy/quantum-computing/graduate-certificate/**)**
Courses: MSQC **(**https://cmns.umd.edu/graduate/science-academy/ quantum-computing/courses/**)**

ADMISSIONS

GENERAL REQUIREMENTS

- Statement of Purpose
- Transcript(s)
- TOEFL/IELTS/PTE

PROGRAM-SPECIFIC REQUIREMENTS

- Letter of Recommendation (optional)
- CV/Resume
- Description of Research/Work Experience
- Prior coursework establishing quantitative ability (linear algebra required)
- Proficiency in programming languages, Python preferred, demonstrated either through prior programming coursework or substantial software development experience

*Visa Eligibility: This program is not eligible for I-20 or DS-2019 issuance by the University of Maryland.

APPLICATION DEADLINES

Type of Applicant	Fall Deadline	Spring Deadline
Domestic Applicants		
US Citizens and Permanent Residents	May 30, 2025	N/A

RESOURCES AND LINKS:

Program Website: https://cmns.umd.edu/graduate/science-academy/ quantum-computing/graduate-certificate (https://cmns.umd.edu/ graduate/science-academy/quantum-computing/graduate-certificate/)
Application Process: www.gradschool.umd.edu/admissions (http:// www.gradschool.umd.edu/admissions/)

REQUIREMENTS

- Quantum Computing, Post-Baccalaureate Certificate (P.B.C.) (https:// academiccatalog.umd.edu/graduate/programs/quantum-computing- Z157/quantum-computing-pbc/)