QUANTUM COMPUTING (SAQC)

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

ABSTRACT

The Masters of Science in Quantum Computing provides participants with foundational, practical and theoretical topics of quantum computing. Participants will discover current state-of-the-art quantum computing technology and areas of application, while also exploring its origins, evolution, and possible future states of this technology.

Experiential learning is at the core of the program with courses that provide ample opportunity for the participant to apply concepts on current-day commercial quantum computing hardware.

Special topics include quantum networks, quantum thermodynamics, quantum machine learning, quantum information theory, quantum Monte Carlo and simulations, and quantum computing hardware.

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

Science Academy
College of Computer, Mathematical, and Natural Sciences
3400 A.V. Williams
8223 Paint Branch Drive
University of Maryland
College Park, MD 20742
Telephone: 301.405.9101
Email: scienceacademy@umd.edu

ADMISSIONS

GENERAL REQUIREMENTS

- Statement of Purpose
- Transcript(s)
- TOEFL/IELTS/PTE (international graduate students (https://gradschool.umd.edu/admissions/english-language-proficiency-requirements/))

PROGRAM-SPECIFIC REQUIREMENTS

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

APPLICATION DEADLINES

Type of Applicant	Fall Deadline	Spring Deadline
Domestic		
US Citizens and Permanent Residents	May 30, 2025	N/A
International Applicants		
F (student) or J (exchange visitor) visas; A,E,G,H,I and L visas and immigrants	February 28, 2025	N/A

RESOURCES AND LINKS:

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

REQUIREMENTS

- Quantum Computing, Master of Science (M.S.) (https://academiccatalog.umd.edu/graduate/programs/quantum-computing-saqc/quantum-computing-ms/)