

High school student programs

- **Quantum Quickstart – UChicago Summer Session** – One-week intro to quantum engineering for Illinois high school students; selected students attend at no cost (housing included).
- **Demystifying Quantum – CPS teacher pipeline via DPI** – Discovery Partners Institute runs “Demystifying Quantum” professional development for CPS teachers, which is a lever for CPS students to get quantum content in class and linked opportunities.

College & early-career programs (Chicago State, UChicago, CQE)

- **Chicago State University Quantum Workforce Programs** – CSU is launching quantum workforce development, including new minor and certificate offerings intended to help students and workers reskill for quantum roles, positioned near the Illinois Quantum and Microelectronics Park. These are public-university programs, so cost is relatively low and financial aid applies; workforce focus suggests targeted funding/scholarships.
- **NSF QuBBE Quantum Institute at CSU/UChicago** – Focus on preparing a diverse quantum workforce, especially on Chicago’s South Side, with connections to Chicago Quantum Exchange and corporate partners; this includes training pathways and community engagement in quantum technologies (often grant-funded for participants).
- **Chicago Quantum Exchange – Education & Training** – CQE coordinates multiple training and certificate opportunities in quantum science & engineering, including intensive certificates for existing STEM professionals and student programs; many offerings leverage federal and foundation funding to reduce cost for participants.

Community college and workforce pathways

These are not always “quantum-specific” yet, but they’re key on-ramps (STEM, computing, electronics) with tuition-free options that can feed into quantum roles.

- **City Colleges of Chicago – Workforce Empowerment Initiative (WEI)** – Tuition-free training in high-demand fields (STEM, tech, etc.) for eligible Chicago residents, with tuition, books, childcare, transportation, and job placement support; can be a low-cost way to get foundational skills that articulate into quantum-related bachelor’s programs.
- **City Colleges – Future Ready short-term programs** – Over 60 free short-term career programs for city residents, some in tech/engineering tracks that align with quantum-adjacent skills (programming, electronics, cybersecurity).

Professional upskilling (mostly not free, but sometimes discounted)

These are more “low-cost” than “no-cost,” but relevant if you’re helping mid-career folks pivot.

- **UChicago Quantum Science & Engineering Certificates** – Short, intensive certificates for STEM professionals run through the Chicago Quantum Exchange and UChicago; they are

- paid, but often connected to employer or government funding for workforce development.
- **Quantum Science, Networking, and Communications – UChicago Professional Education** – Eight-week online course with some group and CQE-partner discounts; best for employers sponsoring staff rather than individuals paying out-of-pocket.
 - **“Quantum Computing for Everyone” – UChicago via RiseUpp** – Fully online, beginner-level quantum computing certificate; currently a few hundred dollars, with the platform sometimes offering discounts but not truly free.

K–12 educator / ecosystem programs (indirect workforce development)

- **Discovery Partners Institute – Pritzker Tech Talent Lab** – Runs events like “Demystifying Quantum” to train CPS K–12 educators on how to introduce quantum topics and connect students to emerging tech pathways, strengthening the future local workforce pipeline.

Name of program	Description	Host of program	Link
Quantum Quickstart – UChicago Summer Session	One-week intro to quantum engineering for Illinois high school students; selected students attend at no cost including housing.	University of Chicago	Quantum Quickstart
Demystifying Quantum (teacher PD)	Professional development that introduces CPS teachers to quantum concepts so they can bring quantum content into their classrooms.	Discovery Partners Institute	DPI quantum teacher training
Chicago State University Quantum Workforce Programs	Quantum-focused degrees/certificates to prepare students and workers for roles in the Illinois Quantum and Microelectronics ecosystem.	Chicago State University	CSU Quantum Workforce
NSF QuBBE Workforce Development	Workforce and education initiatives to build a diverse quantum workforce on Chicago’s South Side, including student research and training.	NSF QuBBE (UChicago, CSU, partners)	<u>QuBBE Workforce</u>

Chicago Quantum Exchange – Education & Training	Networked education and training offerings (student programs, certificates, outreach) across member institutions to prepare the quantum workforce.	Chicago Quantum Exchange	CQE Education & Training
City Colleges – Workforce Empowerment Initiative (WEI)	Tuition-free training in high-demand fields for eligible residents, covering tuition, books, and support services; strong on-ramp to tech/quantum-adjacent skills.	City Colleges of Chicago	WEI info page
City Colleges – Free Short-Term Programs (“Future Ready”)	More than 60 free short-term career programs, including IT and tech pathways that build foundational skills relevant to quantum careers.	City Colleges of Chicago	Free short-term programs
UChicago Quantum Certificates (via CQE)	Short, intensive certificate programs in quantum science and engineering for STEM professionals, sometimes employer or grant funded.	University of Chicago / Chicago Quantum Exchange	CQE workforce programs
Quantum Science,	Eight-week online	UChicago	Course page

Networking, and Communications	course on quantum communication and networks, with some discounts for partners and organizations.	Professional Education	
Quantum Computing for Everyone (online)	Introductory online certificate in quantum computing; relatively low-cost with periodic discounts on the platform.	University of Chicago / RiseUpp	Course listing
DPI Pritzker Tech Talent Lab – Quantum activities	K-12 and community programs (including quantum-themed activities) that build awareness and skills for future quantum-related careers.	Discovery Partners Institute	DPI Tech Talent Lab

1. <https://chicagoquantum.org/education-and-training/quantum-quickstart>
2. <https://dpi.illinois.edu/news/cs-teacher-training-demystifying-quantum>
3. <https://www.csu.edu/quantum/workforce.htm>
4. https://www.linkedin.com/posts/illinoisdc_illinois-quantum-semiconductors-activity-7420149014567809024 -tgkl
5. <https://qubbe.uchicago.edu/research/workforce.html>
6. <https://chicagoquantum.org/education-and-training>
7. <https://pages.ccc.edu/wei/>
8. <https://news.wttw.com/2021/08/21/city-colleges-provide-over-60-free-short-term-programs-fall>
9. <https://thequantuminsider.com/2021/03/25/quantum-workforce-development-spotlight-chicago-quantum-exchange/>
10. <https://www.energy.gov/articles/building-quantum-workforce>

11. https://professional.uchicago.edu/find-your-fit/courses/quantum-science-networking-and-communications?language_content_entity=en
12. <https://www.riseupp.com/professional-certificate/the-university-of-chicago/quantum-computing-for-everyone>