

Georgia Tech's Online Graduate Certificate in Data Science for the Chemical Industry

Georgia Tech's School of Chemical and Biomolecular Engineering and Georgia Tech Professional Education offers an online graduate certificate designed to prepare chemical engineers with the data science skills and tools they need to lead data-driven efforts in their companies. Tailored to meet the needs of working professionals, the [Online Graduate Certificate in Data Science for the Chemical Industry](#) was developed in response to industry demand. Chemicals, energy and manufacturing companies worldwide recognize the need to take advantage of big data to remain competitive. This credit-bearing program is the only credential of its kind and directly addresses this industry need. It offers working chemical engineers a way to acquire data science expertise without the long-term commitment of a master's program.

Curriculum and Commitment

The program includes [four graduate-level courses](#) and takes two years to complete if students take one course per semester. Students can complete the program within one year if they are able to dedicate more time and take two courses per semester. All students are required to take two core courses that focus on foundational data science methods with a strong emphasis on applications in the chemical process industry. In addition to the two core courses, students need to select two elective courses. They can choose their two electives from a variety of options that are already available within Georgia Tech's highly successful online master's degrees in data analytics and in cybersecurity. Core courses are offered in Georgia Tech's fall and spring semesters, but some elective courses may be available in Georgia Tech's summer semester.

Unlike a Georgia Tech master's degree, which typically requires 36 credit hours of coursework, this graduate certificate is comprised of 12 credit hours. Careful attention has been paid in developing the core courses to ensure that they are accessible to students who have an undergraduate degree in chemical engineering or a related discipline. However, it is important to note that the graduate certificate coursework is as rigorous as any other graduate-level course at Georgia Tech and requires the same level of effort and dedication by students. We recommend students spend 10 to 15 hours per week on each course.

Online Delivery

Georgia Tech is a leader in online learning and delivers world-renowned [master's programs](#) to thousands of adult learners across the globe. The course delivery and structure of this graduate certificate are similar to Georgia Tech's existing online master's programs, which prioritize the flexibility and convenience that is so essential for working professionals. For example, courses in this program are offered asynchronously online to accommodate a variety of work schedules and time zones. Students have 24/7 access to their course lectures online but also are able to interact live with the instructional team during office hours.

Upon completion of the program, students are awarded the certificate by Georgia Tech's School of Chemical and Biomolecular Engineering. The term "online" is an informal designation that

distinguishes the delivery method of the online program. It does not appear on the certificate, which reads “Graduate Certificate in Data Science for the Chemical Industry.”

Program Cost

Georgia Tech [tuition rates and fees](#) are adjusted incrementally each year based on the requirements of the University System of Georgia. Currently, the cost to complete the 12-credit hour graduate certificate is \$1,100 per credit hour, excluding fees, and amounts to less than \$15,000.

Admission and Application Deadlines

Applications are accepted for each fall semester. The standard application deadline for Fall 2022 is March 1, 2022 and the final deadline is May 1, 2022. Prerequisites include an undergraduate bachelor’s degree in engineering or hard sciences from a regionally accredited institution, work experience, and foundational knowledge of computer programming in Python. [Detailed application information is available here.](#)

Find out More

Website: <https://www.pe.gatech.edu/certificates/cdsci>

Email: dsci@gatech.edu

A presentation about this program will be given at the AIChE Annual Meeting on Wednesday November 10 at 12:55 pm, in the session “Teaching Data Science to Students and Faculty II”:

<https://aiche.confex.com/aiche/2021/meetingapp.cgi/Session/48114>