Computational thinking has become a new 21st century literacy (USCTO, 2016). Computer Science for All is a national effort dedicated to preparing our students with computational thinking skills. The University at Albany is offering the first online graduate certificate program in computing education in the State of New York. The Certificate in Computing Education (CCE) is also integrated with the M.S. Curriculum Development and Instructional Technology program. You can earn two valuable credentials simultaneously.

The CCE program provides teachers the knowledge and competencies to teach introductory computer science courses such as Exploring Computer Science and Computer Science Principles. The program will also help teachers to develop their own developmentally appropriate curricula in computing for K-12 students.

CCE offers a flexible curriculum:

Three required courses

- ETAP 540 Learning and Teaching Computer Science Principles (3)
- ETAP 630 Educational Computing in the Math/Science Class (3)
- ETAP 652C Teaching Computing in the Secondary School (3)

Two electives in areas of

- Computer games
- Computer science
- Instructional technology
- Other special topics offered at the department

“THE CERTIFICATE IN COMPUTING EDUCATION PROVIDES A FIRM FOUNDATION IN PEDAGOGY AND RELEVANT CONTENT FOR EDUCATORS WHO ARE INTERESTED IN PREPARING TODAY’S YOUTH TO UNDERSTAND AND PARTICIPATE IN THE FAST CHANGING WORLD OF INFORMATION TECHNOLOGY AND COMPUTING.”

DR. PETER SHEA, EDUCATIONAL THEORY AND PRACTICE, CCE PROGRAM
WHY CCE @UALBANY?

- **INTEGRATION:** All courses in the CCE Program are applicable to the Master’s Degree in Curriculum Development and Instructional Technology (CDIT).
- **ADVICE:** Receive valuable career and certification information from dedicated education advisors at the Pathways Into Education (PIE) Center.
- **COST:** Save with tuition rates lower than those at most private universities.
- **CREDENTIAL:** Add another area of expertise to your dossier.
- **FACULTY:** Learn from renowned professors who provide a well-rounded and critical understanding of this dynamic discipline.
- **ONLINE:** Accommodate your busy schedule with the option of online or on-campus classes; complete your certificate when it’s most convenient for you.
- **PREPARATION:** Gain a thorough understanding of technology’s varied and critical roles in education; prepare for a variety of computing integrated courses.
- **RANKINGS:** Benefit from an established program that is nationally ranked for its commitment to student engagement, student services, learning technologies and faculty credentials.

CS CAN COUNT FOR GRADUATION IN 31 STATES + DC. TWELVE STATES HAVE TAKEN POLICY ACTIONS TO SUPPORT COMPUTER SCIENCE EDUCATION.

**Many school districts encompassing New York, Los Angeles, Chicago, Miami, Las Vegas, Houston and Fort Lauderdale are committing to making computer science a standard offering district-wide.**

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For more information on the Certificate of Graduate Study in Computing Education, visit http://www.albany.edu/graduatebulletin/certificate_computing_education.php, contact Graduate Education at graduate@albany.edu or (518) 442-3980, or ETAP advisors at (518) 442-5090 and etapcpn@albany.edu.

THE BUREAU OF LABOR STATISTICS ESTIMATES THERE WILL BE 1 MILLION MORE COMPUTER SCIENCE JOB OPENINGS THAN TRAINED WORKERS TO FILL THEM BY 2020.

ACCORDING TO CODE.ORG, 90% OF PARENTS WANT SCHOOLS TO TEACH COMPUTER PROGRAMMING, AND STUDENTS LOVE IT.

ONLY 1 IN 10 AMERICAN HIGH SCHOOLS OFFERS COMPUTER SCIENCE COURSES.

**ADMISSIONS DEADLINE:** ROLLING

**2018-2019 Tuition (per credit):**

<table>
<thead>
<tr>
<th>IN STATE</th>
<th>OUT OF STATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>$462</td>
<td>$944</td>
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Graduate Education at the University at Albany offers an online step-by-step guide to the application process. This resource provides detailed information for both domestic and international students, and includes forms, deadlines, requirements and fees.

www.albany.edu/graduate/apply

Student consumer information, including non-discriminatory policies, safety and security, Cleary Act, etc., can be found at http://www.albany.edu/irrtk