UIUC – DPI Online Information Session
Teaching Endorsement in Computer Science
March 11, 2021
Agenda

• Welcome and Introduction of CSTed Faculty and Staff
• DPI – The CSTed Experience
• UIUC College of Ed – The CSTed Pathway
• FAQs / Q&A
• Preview: Next Info Session – **Wed 4/14**
University of Illinois Urbana-Champaign’s College of Education

Dr. Luc Paquette
Assistant Professor
Dept of Curriculum & Instruction
• PhD in Computer Science
• Affiliated faculty, National Center for Supercomputing Applications (NCSA)
• 2020 National Science Foundation (NSF) CAREER Award Recipient

Dr. Raya Hegeman-Davis
CS Teacher Education Program Coordinator
School-University Research Coordinator
• PhD in Ed Policy & Administration
• Advisory Committee Lead, Illinois Statewide K-12 CS Ed Summit
• Liaison, State Board of Education and Office of the Governor
Discovery Partners Institute’s Community Education Unit

Mark Harris
Director
• Former CEO of Illinois Science & Tech Coalition and Institute
• Gov’s Office, DCEO, UChicago Polsky Center

Charity Freeman
Associate Director, Teacher Training
• CPS CS Teacher
• CSTA Board of Directors
• Teach Plus Illinois K-12 Teaching Policy Fellow

Gina Grant
Associate Director, K-12 Student Programming
• 20-year urban educator and administrator
• CLX, Hive, CPS, Chicago Architecture Foundation
• CSforCHI Team Lead CS4ALL EcoSystemsforCS initiative
DPI: The CSTed Experience
Discovery Partners Institute – Who we are

A coordinated effort to band together in order to develop, attract, and retain talent – and advance transformative R&D.

**AT HOME**

**...AND ABROAD**
DPI Teacher Training Initiatives

DPI is partnering with UIUC’s College of Education, CPS, and others to fundamentally advance the way computer science is taught in Illinois.

- Only 15% of the 1,000+ high schools in Illinois offer AP CS courses, largely due to a shortage of skilled CS instructors.
- There is currently no pathway to licensure for prospective CS teachers.
- Illinois is expected to establish statewide CS learning standards in 2021, and the newly-passed HB2170 will require schools to offer CS classes by 2023.
- No plans for funding or implementation around preparing CS teachers to meet these demands.
DPI Teacher Training Initiatives

DPI plans to address this in two ways:

1. Recruiting, training, endorsing, and equipping current teachers via quality skills programs to teach CS
   - In partnership with UIUC’s COE, launch Teaching Endorsement in CS (CSTed) pathway in Summer 2021
   - Create and offer professional development opportunities tied to CS learning standards implementation

2. Develop onramps for future teachers to graduate with the skills needed to be effective CS educators

Our Goal: By 2026, we aim to endorse 300+ teachers and reach 1,500 teachers by 2029, so that every high school in Illinois has a qualified CS teacher.
UIUC College of Ed: The CSTed Pathway
Overview: Teaching Endorsement in CS (CSTed)

Granted by the Illinois State Board of Education (ISBE)
  • Meets ISBE’s **18-credit hour requirement** for obtaining a subsequent teaching endorsement in computer science

Professional Development
  • Acquire core CS knowledge and skills: computer programming, discrete mathematics, computer systems, data structures, and more

Relevant Pedagogy
  • Diverse applications of CS (e.g., game design, data science, etc.) to be implemented in your future classroom

Reflective Practice
  • Reflect on your own process of learning about computer science and discuss the expected experience of your future students
CSTed Curriculum Sequence

First cohort begins Summer 2021
• Launch: June 14 through August 7
• Duration: Five (5) semesters

Required Courses (20 hours)*
• CI 438: Computer Programming and the Classroom
• CI 480: Introduction to Computer Science for CS Teachers
• CI 483: Computer Systems for CS Teachers
• CI 486: Teaching Methods for CS Teachers
• CI 487: Data Structures for CS Teachers
• CI 492: Discrete Mathematics for CS Teachers

Optional Course (4 hours)
• CI 488: Capstone Projects for CS Teachers

*ISBE’s requirement for teaching endorsement in CS: 18 credit hours
CSTed: Designed with Teachers In Mind

Accessibility

• All courses offered online, delivered synchronously

Convenience

• One evening course per fall/spring semester
• One course per summer

Ongoing Support

• Virtual office hours (Dr. Luc Paquette & additional teaching staff)
• Course advising + Logistics (Dr. Raya Hegeman-Davis)
• Community of practice (Charity Freeman)

Affordability

• Financial support is available on a first-come, first-served basis
• 75% of tuition coverage upon course completion (grade of C+ or above)
• Priority enrollment deadline: April 30, 2021
What are the eligibility requirements?
- Bachelor’s degree
- Current and valid Professional Educator License (PEL)
- Plan to teach CS in Grades 5-12

Is there an application and admissions process?
- Formally, no. Simply enroll in the summer cohort and register to take the first CSTed course (CI 438):
  [dpi.uillinois.edu/csted-apply](https://dpi.uillinois.edu/csted-apply)

How much does the CSTed cost?
- Tuition: $490 per credit hour
- Financial support available (75% tuition coverage): first-come, first-served. Enroll by Friday 4/30/2021.
Next Info Session:
Wednesday 4/14
4:30-5:30pm CST

Agenda Preview

- Meet CSTed faculty
- Overview of curriculum sequence
- Course previews
  - CI 438: Computer Programming and the CS Classroom
  - CI 480: Introduction to Computer Science for CS Teachers
- Overview of Cohort Model
- Enrollment Process
  - Application walkthrough
  - Priority deadline for tuition support: Friday 4/30
- General Q&A

Link to Register:
https://dpi.uillinois.edu/csted-reginfo2
Contact us

Charity Freeman
DPI Associate Director of Teacher Training
Email: charityf@uillinois.edu
• General questions
• Community of Practice (events, peer mentoring, external partnerships, etc.)
• Tuition support for Chicagoland-area teachers

Dr. Raya Hegeman-Davis
UIUC COE CS Teacher Education Program Coordinator
Email: raya@uillinois.edu
• General questions
• Course advising
• CSTed curriculum
• Funding for teachers in Peoria and downstate (south of I-80)