Integrating Computational Thinking in the Elementary Classroom

Fall 2019

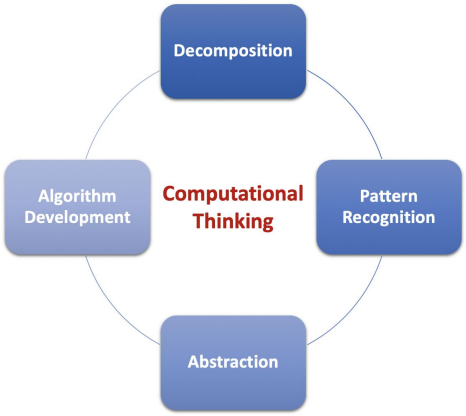
Course Overview

The Relay GSE Integrating Computational Thinking in the Elementary Classroom course is a professional learning series for K-6 educators. Over the course of five weeks, participants will learn about various methods to integrate computational thinking into their elementary classes, collaborate with other educators from around the country, and receive feedback on their planning and implementation. The program is completely online, with educators participating in a blend of synchronous and asynchronous online sessions. Participants will finish the course having designed, implemented, and reflected on at least one lesson integrating computational thinking.

Core Ideas

The Integrating Computational Thinking in the Elementary Classroom course is focused on four core ideas:

- **Computational Teaching as an Approach to Learning:** Participants will learn how computational thinking concepts and skills, such as decomposition, abstraction, pattern recognition, and algorithm design, are cross-curricular and can support student understanding in any subject.
- **Enhancing Current Curriculum:** Instead of replacing lessons, participants will learn how to improve and extend their current curriculum with specific computational thinking concepts and skills.
- **Integrating Technology:** Participants will consider how to enhance lessons with technology, focusing specifically on Scratch as a tool to support the integration of computational thinking.
- **Practice, Implementation, and Reflection:** After several inquiry-based experiences, participants will have the opportunity to plan and implement a lesson in their own specific contexts, receive feedback from peers and instructors, and reflect on how to continue integrating computational thinking in their classes.



Course Structure

The five-week course begins in mid-October and concludes in mid-November of 2019. Classes take place weekly on Wednesday evenings in a virtual setting (Zoom). Participants in the course can expect to spend two hours in a synchronous class each week after completely approximately 3 hours of asynchronous online coursework. The asynchronous online component of the course includes readings, videos, and opportunities to learn new content before coming together with like-minded educators to explore, discuss, and practice in the synchronous online classes. Participants will receive feedback each week, both in-the-moment during class and after submitting assignments as part of the asynchronous coursework.

Ideal Participations and Tuition

The ideal candidate for the Integrating Computational Thinking in the Elementary Classroom course is a K-6 educator excited to improve upon their own planning and teaching while supporting students with developing essential 21st-century skills. Educators should be open-minded and ready to explore new ideas and ways of teaching, excited to participate in lots of challenging activities both independently and with colleagues, and eager to move from learning to implementation to reflection. Each educator who completes the program will earn a certificate of completion. Tuition is free for the Fall 2019 semester, with participants only paying a $15 registration fee when they sign up.

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Course Calendar

October 2019						
SU	**M**	**T**	**W**	**TR**	**F**	**SA**
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

November 2019						
SU	**M**	**T**	**W**	**TR**	**F**	**SA**
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

Key	
	First Session
	Regular Session
	Last Session
	Optional Office Hours

About Relay

Relay's mission is to teach teachers and school leaders to develop in all students the academic skills and strength of character needed to succeed in college and life. We currently offer Master of Arts in Teaching, Alternative Route to Certification, and school leadership professional development programs in nine states, preparing over 1700 educators each year for successful careers in the classroom or school administration. Additional professional development programs, such as the Relay Computer Science Institute, allow both new and experienced teachers to build new skills and refine their approach.

Interested? For more information and to register, visit our website at https://relay.edu/computer-science-institute or reach out to Raja Ridgway at computerscience@relay.edu