

ED.893 (EDUCATIONAL TECHNOLOGY)

ED.893.546. Technology for Learner Variability. 3 Credits.

This course provides an overview of the historical foundations and the advancements in the learning sciences related to learner variability. Students will learn to apply the Universal Design for Learning framework in understanding and addressing learning variability. Students will develop the knowledge and skills necessary to anticipate and plan for systematic differences in learners, and apply technology to that end. Students will investigate existing and emerging technologies to determine how these may support all learners in becoming purposeful and motivated, resourceful and knowledgeable, and strategic and goal-directed.

ED.893.651. Computational Thinking for K-12 Educators. 3 Credits.

In 2006, Jeannette Wing published a seminal paper on computational thinking, arguing that “it represents a universally applicable attitude and skill set everyone, not just computer scientists, would be eager to learn and use.” This course will provide an overview of computational thinking (CT), in theory and in practice, with an emphasis on its use in different K–12 disciplines and contexts. Students will investigate CT theories, CT measures, the benefits of building CT competencies, and approaches to developing CT in many different disciplines. Students will work with a variety of tools, including the Scratch block programming environment, to explore how these can be used to develop CT competencies among their learners, and create a long-term plan for nurturing CT in their particular context.