Empowered Coaching for Empowered Learning

Online Course Syllabus

Program Description

Educators around the world are exploring ways to integrate the ISTE Standards for Students and Educators in teaching and learning. The role of a coach is unique in that he or she must be well-versed in the Standards, but also able to support and lead colleagues in Standards adoption and innovative best practices in digital age learning. This course is designed to propel the role of coach in schools, districts, and ministries of education. The learning pathway is separated into three distinct learning segments that will help coaches quickly assimilate the ISTE Standards for Students and Educators, apply the Standards to the role of coach or mentor, and reflect deeply on Computational Thinking as a critical competency across all curriculum areas.

The course begins with modules that provide an overview of the recently refreshed ISTE Standards for Students (2016) and Educators (2017). These Standards provide the foundation for the effective use of technology to support learning. Those in the role of coach or mentor should understand the Standards and Indicators at a level deep enough to support others in their application, synthesis, and evaluation of the Standards in practice.

The Coaching modules are designed to provide opportunities for aspiring and practicing coaches to reflect deeply on the Standards from the perspective of one who will facilitate the adoption of research-based best practices in digital age learning with fellow educators. Participants will identify their core values as a coach and apply the Standards to coaching practice through a pedagogical vision of innovative learning or an initiative that may already be underway in their context (e.g. blended learning, personalized learning, deeper learning, project-based learning, problem-based learning).

The ISTE Computational Thinking (CT) modules are designed to prepare educators including technology coaches and teachers to understand and effectively work with teachers and school leaders in implementing the computational thinking standard in any content area. This four module segment focuses on CT integration including activities, discussions, practices, and feedback on the process of working with students and coaching teachers on effective integration of CT at their schools. Participants will deepen their understanding of CT concepts and vocabulary through module activities and will engage in active online discussions with workshop/course facilitators.

The CT learning segment is developed around ISTE's resource on Computational Thinking for All that includes CT Operational Definition, Dispositions, and Vocabulary. The learning segment has a strong emphasis on using the CT Teacher Resources, CT Leadership Tool Kit (links found in Computational Thinking for All page), ISTE Standards for Educators, and ISTE Coaching Standards applied to the integration and implementation of CT in educational settings. These resources are utilized throughout the course activities.

Learning Objectives

ISTE STANDARDS FOR STUDENTS AND EDUCATORS

- Apply the ISTE Standards for Students and Educators to coach colleagues in the use of digital tools and resources to support student learning. Take thoughtful risks in experimenting with new strategies for learning with technology, and reflect on ways of improving the practice of teaching and learning. (Week 1 & 2)

COACHING

- Consistently engage in ongoing professional learning, provide collegial support and contribute to school improvement by actively initiating, contributing to or leading discussions with others in online professional networks. (Week 3)
- Encourage colleagues and students to actively engage in and contribute to online communities and other digital interactions in positive, culturally sensitive and empathetic ways by initiating discussions, seeding questions and posting original content for feedback. (Week 3)
- Empower colleagues and students to make choices about their learning paths, including working individually and in teams to conduct research, evaluate data, curate resources and build knowledge with and for others, based on their own learning needs and goals. (Week 4)
- Design authentic learning activities aligned with content standards and that use digital tools that encourage students to think strategically and transfer knowledge from one domain to another. (Week 4)
- Empower colleagues to encourage students to set personal learning goals, develop strategies to achieve them, and reflect on the learning process itself to improve learning outcomes, leveraging a variety of digital tools. (Week 4)
- Promote and support a culture of curiosity and critical examination of digital resources that includes fact-checking, providing evidence, and triangulation of information. (Week 5)
- Encourage colleagues and students to promote the safe and ethical use of technology by others, including contributing to the pool of existing copyright- friendly media with their own intellectual property. (Week 5)
- Regularly collaborate both locally and globally to learn from and contribute to others' continued professional development and to design learning experiences in which students authentically use technology to address real- world problems. (Week 5)
- Collaborate and engage with colleagues and students as lead- learner in the discovery and use of new digital resources and in diagnosing and troubleshooting technology issues. (Week 5)
- Select and use digital tools for formative and summative assessments that authentically measure student learning and use data to provide timely feedback to students, accommodate individual needs, and inform the learning process. (Week 6)

- Advocate for and mobilize others in the development and implementation of a shared vision for empowered learning with technology among education stakeholders in their local system. (Week 6)

COMPUTATIONAL THINKING

- Explore computational thinking concepts and reflect on ways to integrate CT in teaching content in a specific grade level. (Week 7)
- Collaborate with peers in designing and implementing instructional plans in which students develop CT concepts in problem-solving processes. (Weeks 8 & 9)
- Enable students and educators to select digital tools that help them develop CT concepts and skills, reflect on how to facilitate instruction to meet the needs of diverse learners, and create artifacts that advocate for the shared vision for CT in school. (Week 9)
- Empower colleagues to enable students to select authentic ways of demonstrating their competencies and reflect on their learning, including evaluating and selecting the most effective digital tools. (Week 10)

Course Schedule

MODULE	MODULE DESCRIPTION	ASSIGNMENTS AND TASKS
Week 1 ISTE Standards for Students	The ISTE Standards for Educators, Education Leaders, Coaches, and Computer Science Educators are all built upon the ISTE Standards for Students. They are designed to empower student voice and ensure that learning is a student-driven process. Whether a classroom teacher, coach, principal, or other school leader, the driving goal is to promote and facilitate student learning. This module provides an overview of the ISTE Standards for Students from the perspective of the coaching role.	Explore the ISTE Standards for Students. Apply - Develop a teaching and coaching tool that identifies activities and practices that align with each of the ISTE Standards for Students. Then, contribute those ideas to a collaborative master list shared by all participants.
Week 2 ISTE Standards for Educators	Some schools and districts have full time technology or curriculum coaches. However, classroom teachers, administrators, and other educators may also serve in the role of coach. Teachers who have embraced the effective use of technology for learning often become role models for their fellow colleagues. This	Explore the ISTE Standards for Educators. Apply - Evaluate your current practice in relation to the ISTE Standards for Educators Rubric of Quality,

	module explores the ISTE Standards for Educators as a framework for both professional and aspiring coaches to deepen professional practice, collaborate with peers, and rethink traditional approaches to prepare students to drive their own learning.	identifying areas of strength and areas for growth. Discussion: Coaching Perspective - On what Standards do you see colleagues having the most difficulty achieving? How might you mitigate the challenges they are having?
Week 3 Coach as Professional Learner	Coaches come to their roles from various paths. Each brings his or her personal values, educational philosophies, and local initiatives to the position. This module explores the role of coach as a professional learner. Participants will also share the teaching and learning initiatives that are planned or underway in their schools or districts. The remainder of the coaching modules will apply the Standards through the lens of an initiative or project selected by the coach, thus personalizing the learning to his or her professional needs.	Explore the core beliefs and pedagogical philosophies that drive digital age teaching and learning in your educational context. Choose an initiative - such as blended learning, project-based learning, problem-based learning or personalized learning - from which to evaluate a unit plan and complete the subsequent coaching modules. Apply - Identify resources, communities, and networks that can support further learning around the chosen initiative. What professional learning is needed for the coach? How can professional networks be leveraged to support the learning of the coach and teachers? Discussion: Coaching Perspective - How are teachers identifying their professional learning needs? How can coaches use the educational community and

		professional networks to model personalizing their own learning and help teachers do the same?
Week 4 Coaching Design and Facilitation	Instructional design and facilitation are key components in lesson and unit planning, especially with regard to effective integration of the ISTE Standards for Students. Since the participant has identified an initiative or project on which to focus, the next three modules will apply the coaching role in the context of a unit plan and content area that is aligned with the strategic direction, pedagogical initiative, or special project at their school. In this module, participants continue to build the unit plan with special consideration for coaching instructional design and facilitation. This module addresses how coaches can support teachers and engage students in the design and facilitation process.	Explore coaching questions and approaches that catalyze innovative digital age instructional design and facilitation. Apply - Practice modeling the improvement or transformation of a unit plan to integrate innovative design and facilitation strategies. Discussion: Coaching Perspective - In what ways can coaches empower teachers as designers? How can students be engaged in this process?
Week 5 Coaching Digital Citizenship and Collaboration	Digital citizenship and collaboration are critical skills for digital age learning. In this module, the unit plan addresses the implications for coaching digital citizenship and collaboration between colleagues, with students, and with others outside the school environment.	Explore coaching questions and approaches that catalyze the development of collaboration and digital citizenship in instructional practices. Apply - Practice modeling the improvement or transformation of a unit plan to integrate digital citizenship and collaboration. Discussion: Coaching Perspective - Why are branding and digital footprint

		considerations important when collaborating with others online? How can you support teachers and students as they manage their own branding and digital footprint?
Week 6 Coach as Analyst and Leader	As data collection, analysis, and subsequent decision-making continues to evolve through new technologies, it becomes increasingly important to address the implications for teaching and learning. In this module, participants will consider the effective use of data in their unit plan. They will also reflect on the role of coach as leader.	Explore coaching questions and approaches that catalyze the effective use of data in the context of digital age teaching and learning. Apply - Practice modeling the improvement or transformation of a unit plan to clearly integrate effective collection, analysis, and use of data. Discussion: Coaching Perspective -Based on what you've learned, what does it mean to be a teacher leader, coach, and/or mentor in the context of the ISTE Standards?
Week 7 Introduction to Computational Thinking	This module uses ISTE's Teacher Resource kit to emphasize that computational thinking is more than coding. As participants, you will study the operational definition of CT to understand that CT is a problem-solving process. You will also review the nine CT concepts and the vocabulary and progression chart found in Pages 8-9 of the "CT Teacher Resources" document.	Explore nine key concepts of computational thinking (CT). Apply - Prepare a presentation explaining CT to students, teachers or community members. Provide at least one example of how CT can be integrated into teaching content.

Week 8 Exploring Problem Decomposition, Data Collection, Data Analysis, and Data Representation	In this module, you will explore four CT concepts that are more familiar to all content and grade level teachers. These concepts are critical in the problem-solving process with or without computers or devices. As classroom teachers and coaches, you will collaborate with peers in designing student-centered learning experiences in which students develop these CT concepts.	Explore the scenarios and lessons provided in this module to examine how the CT concepts of Problem Decomposition, Data Collection, Data Analysis, and Data Representation are integrated in teaching content. Apply - Develop an instructional plan integrating problem decomposition, data collection, data analysis, and data representation in teaching content. You will identify one to two peers to work with you in designing and developing the instructional plan that includes problem-solving or problem-based learning experiences for students.
Week 9 Exploring Abstraction, Algorithm, and Automation	This module will provide examples and scenarios for you to understand abstraction, algorithm, and automation. In collaboration with your peers, you will identify applications that will help you develop these concepts in classrooms.	Apply - Collaborate with peers in designing a learning experience for students to develop a product or an artifact that solves a problem through abstraction, algorithm, and automation. Apply - Explore at least one coding tool of your choice (ex: Scratch) using the tutorials provided.
Week 10 Exploring Modeling/ Simulation and Parallelization,	Most educators utilize modeling and/or simulation in content instruction. Parallelization is about organizing resources to simultaneously carry out tasks to reach a common goal in the problem-	Apply - Create a presentation on the integration of parallelization and simulation into teaching and learning, as well as how you can

and Reflection on CT Implementation	solving process. In addition to discussing curriculum scenarios that integrate these concepts, you and your peers will reflect on challenges and issues relating to CT implementation and how you can advocate CT integration in your school or community.	differentiate CT learning to meet the diverse needs of learners using various tools and resources. Discuss: Coaching Perspective - How can you establish a shared vision for implementing computational thinking in your school or district?

Completion Criteria

- Complete an ISTE Readiness Assessment (RA) administered prior to the start of the program, and an Impact Survey (IS) administered near program end.
- Active participation in course discussions
- Successfully complete all assignments with required elements.
- Passing marks in assigned program activities and assessments that demonstrate proficiency in performance indicators from ISTE Standards for Coaches, including proficiency in re-designing learning activities with technology through the lens of the ISTE Standards for Students

Instructional Design Team

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NOTE: A variety of applications are highlighted throughout this course. Prior to using any of them with students, it is imperative that participants check the account requirements for each application against their school/district student data privacy policy to insure the application complies with district policy. In addition, some applications' Terms of Service may require parental permission to be COPPA and FERPA compliant for students younger than 13 years of age.