

## Title

Capstone II: Empowering Students with Technology

## Target Audience

This course is intended for K-12 educators who have experience with technology integration and are interested in demonstrating their proficiency in the ISTE NETS•T.

## Prerequisites

To successfully participate and complete the assignments in this course, the learner must:

- Have experience using information and communication technology (e.g., Internet, word processors, spreadsheets, multimedia authoring tools) in a K-12 classroom.
- Have access to a K-12 classroom and students to implement a lesson or project.
- Be familiar with elementary, middle, or high school curriculum content.
- Have taken online courses, including the Capstone Introduction and the Capstone I course.

## Course Description

This course is the second of two Capstone Program courses designed to qualify learners for a PBS TeacherLine/ISTE Certificate of Proficiency in the ISTE National Educational Technology Standards for Teachers (NETS•T). With a focus on the student as primary user of technology in the classroom, this course offers learners an opportunity to deepen their knowledge of the standards in practice and demonstrate their proficiency in those standards. Learners will create online portfolio exhibits that illustrate their proficiency in empowering student learning with technology through reflections on evidence from their practice.

## Instructor/Facilitator

Course coaches are assigned according to learner grade level and subject preferences.

## Goals

The overall goal of this course is for learners to deepen their understanding of and demonstrate their proficiency in selected ISTE NETS•T.

By the end of this course, learners will:

- Understand a variety of roles that technology can play in supporting K-12 teaching and learning.
- Be comfortable explaining the ISTE NETS•T and how they apply to classroom teaching.
- Share strategies and resources with other educators within the Capstone community of practice.
- Deepen their thinking about empowering students with technology and challenge themselves to make improvements in their teaching practice.
- Develop a Capstone II exhibit that exemplifies effective student use of technology for learning and demonstrates proficiency in selected NETS•T.

**Outline of Content and Assignments**

After previewing the documents in the Course Information area, learners will proceed to Course Content area to complete the following eight sessions. Throughout the sessions, learners are asked to articulate their ideas in various contexts: they are encouraged to reflect on their ideas and experiences both privately and in online discussions, and they are expected to create an online portfolio exhibit of a classroom lesson or project that demonstrates teacher proficiency with facilitating student use of technology to promote learning.

This course is designed to address all of the ISTE *Educational Technology Standards and Performance Indicators for All Teachers*. These standards define the fundamental concepts, knowledge, skills, and attitudes for applying technology in educational settings, and they frame the entire Capstone Program.

**Session 1: Developing Communities of Practice (Weeks 1 & 2)**

In the first two-week session, learners will deepen their involvement in the Capstone community of practice, further cultivate connections with other members, and take the group’s “joint enterprise” to the next level.

Learners will:

- Identify and discuss a professional challenge that their colleagues might help them address.
- Explain ways in which they are effective as a teacher and ways in which they would like to improve their practice.
- Create Capstone II exhibits and clarify their project ideas.

Read

- ISTE’s “Profiles for Technology Literate Students.”
- “Professional Learning Communities” by S. Hord.

Explore

- “From Hula to High Tech” from GLEF’s Edutopia Web site.

Respond in the Online Journal

- Reflect how you are effective as a teacher, and how you would like to improve.

Participate in the Online Discussion

- Team Solutions - professional challenges with members of the Capstone cohort.

Complete

- Doing a self-assessment using NCREL’s “Learning with Technology Profile Tool” and reflecting on teaching strengths and areas for improvement.
- Creating a Capstone II exhibit from an exhibit plan submitted in the Capstone Introduction.

**Session 2: Shared Visions of Standards in Practice (Weeks 3 & 4)**

In this session, learners will work toward further developing a collective vision of what ISTE standards look like in practice, particularly with regard to student use of technology.

Learners will:

- Analyze a multimedia case study of technology integration, identifying where there is evidence of NETS•T in practice and where more information is needed.
- Discuss a project idea and justify it to a resistant teacher audience.
- Articulate a rationale for the use of technology in their exhibit projects.
- List the types of evidence that they might use to demonstrate the standards they selected for their Capstone II exhibits.

Read

- “Learning Technology and Education Reform in the Knowledge Age” by B. Trilling and P. Hood.
- the “Guide to NETS•T in Practice” and considering evidence for Capstone exhibits.

Explore

- One of four GLEF school portraits.
- At least two of the Capstone II case studies

Respond in the Online Journal

- Analyze one of the Capstone II cases in your online journal

Participate in the Online Discussion

- post a brief proposal for your Capstone II exhibit project.

Complete

- In your Capstones project, explain and discuss rationale for technology use in Capstone exhibit projects.
- Notes about the “Guide to NETS•T in Practice”.

Session 3: Focusing on What Works (Weeks 5 & 6)

In the third session, learners will investigate research about how people learn and how technology can support teaching and learning in K-12 classrooms.

Learners will:

- Explain the design of their Capstone exhibits in light of particular dimensions of effective learning environments.
- Describe and discuss how student use of particular digital tools can advance learning in specific ways.
- Provide feedback on another learner’s exhibit-in-progress, in response to a question from the author and in light of guiding criteria from the rubric.

Read:

- Reading “Learning: From Speculation to Science,”
- “The Design of Learning Environments,” and
- “Technology to Support Learning” from *How People Learn* by J. Bransford, A. Brown, and R. Cocking.
- “New Designs for Connected Teaching and Learning” by M. Riel.
- “Connecting Student Learning and Technology” by S. Adams and M. Burns
- Browsing and “Wetware: Why Use Activity Structures?” by J. Harris.
- Capstone II Exhibit Rubric

View

- The video “Engaged Discoverers: Kids Constructing Knowledge with Technology” produced by SCRTEC.

Respond in an Online Journal

- About the four dimensions of effective learning environments as they apply to exhibit projects.

Participate in an Online Discussion

- Tools for Learning - how features of particular digital tools serve specific learning goals.

Complete

- After reading the Capstone Rubric - write Notes in the "Student Learning" and "Evidence of Standards" fields in the Capstone Portfolio to guide your exhibit work.
- Project Feedback - Sharing your exhibit with your partner and provide feedback on peer partners' exhibits.

Session 4: Teaching Tools and Strategies - Information Literacy (Weeks 7 & 8)

In this session, learners will explore teaching resources and strategies for helping students use technology constructively to create original work products. Though a variety of topics are potentially relevant, this session will feature information literacy and classroom management because of their broad application across grade levels and subjects in teaching students to use technology independently.

Learners will:

- Reflect on the challenges of cultivating information literacy and how they have faced them in their classrooms.
- Identify and discuss successful strategies for managing technology and students.
- Reflect on how their exhibit evidence demonstrates their proficiency in specific standards.

Read

- "Kathy Schrock's Critical Evaluation Guide"
- "The ABC's of Web Site Evaluation."

Explore

- Appropriate Use - Resource Library within the capstone portfolio tool.
- Modern Learning Environments - Read and view online resources related to information literacy.
- Modern Learning Environments – Explore online resources related to managing students and technology
- Exploring Web-based tools for teachers.

Respond in an Online Journal

- Reflecting on efforts to help students become "information literate."

Participate in an Online Discussion

- Tips and challenges related to managing students and technology.

Complete

- Go to the "Evidence of Standards" section in your Capstone II exhibit. Begin writing reflections for the standards you have identified as relevant to your lesson or project.

Session 5: Issues and Challenges - Digital Equity (Weeks 9 & 10)

In this session, learners will contemplate practical issues and challenges related to ensuring equitable access to technology for all students to support learning.

Learners will:

- Reflect on how technology can affirm and optimize diversity in the classroom.
- Discuss the challenge of ensuring that all students learn to use a core set of technology applications in the context of meaningful learning experiences.
- Reflect on what students learned from their Capstone lessons or projects.
- Complete drafts of their Capstone II exhibits.

Read

- “The Digital Disconnect” by D. Levin and S. Arafah.
- “Pencils Across the Curriculum” by Bryn Jones
- “Technology Benchmarks K-12, Part 2” by C. Holzberg.

Explore

- Using the “Interactive StaR Chart” to create a profile of a school’s “technology and readiness” status.
- Browsing online resources related to the “digital divide.”
- ICT Literacy Maps

Respond in the Online Journal

- Reflecting on how technology can help to leverage diversity in the classroom.

Participate in an Online Discussion

- Common Experiences - different schools’ approaches to ensuring equitable experiences with technology among all students.

Complete

- In the Capstones II project, complete “student learning”.
- Prepare your draft exhibit for peer review in the next session.

Session 6: Professional Collaboration (Weeks 11 & 12)

In this session, learners will closely review the work of a cohort peer, offer constructive feedback on a draft exhibit, and lead online professional conversations among their Capstone colleagues.

Learners will:

- Evaluate another learner’s exhibit using the Capstone II Exhibit Rubric.
- Discuss highlights of their peer partners’ exhibits and those of others in their cohort.
- Reflect on their experience leading an online professional development event for Capstone community members in *Tapped In*.

Read

- “Tapped In: A New On-line Teacher Community Concept for the Next Generation of Internet Technology” by M. Schlager and P. Schank.

Respond in the Online Journal

- Reflect on the online learning event in Tapped In

Participate in the Online Discussion

- Discussing highlights of draft Capstone II exhibits within the cohort.

Complete

- Share your Capstone II exhibit
- Review a peer partner’s exhibit and provide feedback using the Capstone II Exhibit Rubric
- Participation in an online learning event through “ Tapped In”.
- Incorporate peer feedback into portfolio exhibit revisions.

Session 7: Dissemination Plans (Weeks 13 & 14)

In this session, learners will consider their local leadership roles and how they plan to help other educators build knowledge related to the NETS•T.

Learners will:

- Reflect on how technology has provided a vehicle for their professional learning.
- Discuss plans for facilitating professional development among local colleagues.
- Finalize their Capstone II exhibits and share them with their cohort.

Read

- "Providing Professional Development for Effective Technology Use" by G. Rodriguez and R. Knuth.
- Browse online materials related to professional development about technology.

Respond in the Online Journal

- Reflect on experiences in which technology served as a medium for professional development.

Participate in the Online Discussion

- Discuss plans for facilitating future professional development experiences among local colleagues.

Complete

- Re-take the Capstone Readiness Survey in Profiler Pro.
- Complete and share Capstone I exhibits within the cohort.

## Session 8: Exhibition (Week 15)

In the last session, learners will celebrate the work produced by members of their cohort and reflect on what they have accomplished.

Learners will:

- View and comment on Capstone II exhibits of fellow learners.
- Discuss what they have learned in the Capstone II course and the program overall.

Read

- Colleagues exhibits and leave feedback in comments

Participate in the Online Discussion

- Discussing the Capstone learning experience as a group.

## Schedule

This course is designed to mirror a standard 15-week. Learners should plan to spend a total of approximately 45 hours to complete readings, activities, reflections, and exhibit building.

## Requirements

Learners are expected to:

- Complete all assignments
- Maintain an online journal
- Participate at least once each week in discussion boards
- Ask for assistance when they need it

**Materials (hardware, software, plug-ins)**

Technical Requirements

- Word processor
- Internet service provider
- E-mail

**Academic Dishonesty Policy**

To be inserted by university institution only

**Evaluation**

This course is evaluated on a letter grade basis, and may be available for graduate credit. See graduate credit details pertaining to specific graduate credit institutions.

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