Empowering Learners Using Technology

In this course, educators will have the opportunity to examine the new ISTE Technology Standards for Students released in 2016, as well as explore new and emerging technologies that can support and empower learners. Models of technology integration will be compared with focus on Scott McLeod's Trudacot, a template of questions that encourage educators to think purposefully about how technology is being used in their classrooms. Using The HyperDoc Handbook, participants will explore a variety of lessons that align with the Four C's, the 2016 ISTE Standards, Trudacot, and DOK. Participants will explore ways to use Google Apps beyond the basics to create digital lessons that allow for greater personalization and blended learning experiences. Discussions will include current movements in educational technology including STEM/STEAM, coding, Maker Spaces, design thinking, connected learning and blended learning. Newer technologies explored will include virtual reality, creation of memes and infographics, as well as a variety of apps that support the Four C's. Emphasis will be on development of digital lessons using Google Apps, the new standards and newer technologies to purposefully embed technology. Educators will be expected to create or redesign a series of lessons using the frameworks examined in class and that are aligned with ISTE and curriculum standards.

*Most of the work will be done using Google Chrome and can be accomplished on a Chromebook or laptop running the Chrome browser. Chromebooks can be provided in the classroom for those who do not have one available to bring. Books will be available before the start of the class. There is required reading and online discussion during the online hours of 7/24 - 8/1/2017 - prior to the first classroom meeting.

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Instructors/Course Information

Office Hours:	Instructors will be available by e-mail and phone.	
Classroom Location:	Location: Essex Middle School	
	<i>Class sessions:</i> Online Reading and responses: July 24 - August 1	
	Face to face: August 2, 3, 4 (W,Th, F) and August 7, 8 (M, T) 8:00 AM - 3:00 PM	

Goals:

- 1. Gain an understanding of how current 2016 ISTE and curriculum standards along with the various frameworks and models of planning for and structuring lessons/units can be used to evaluate others' work and effectively plan for technology integration.
- 2. Gain an understanding of current movements in educational technology and how they apply to classroom instruction.
- 3. Learn intermediate and advanced ways to incorporate Google Apps and other emerging technologies to personalize learning and empower learners.
- 4. Learn ways to develop rubrics for self, peer, and teacher evaluation of work that incorporates technology.

Learning Outcomes:

- 1. Participants will know and understand the 2016 ISTE Student Standards and how they connect/overlap with the Four C's, Vermont's Transferable Skills, and curriculum standards.
- 2. Participants will be able to evaluate technology integration in others' and their own lessons/units using the Trudacot method.
- 3. Participants will show understanding of technology integration by identifying the 2016 ISTE standards, the four Cs, and the DOK addressed in others' lessons.
- Participants will reflect on their understanding and opinion of current movements in educational technology (STEM/STEAM, Maker Spaces, Coding, Virtual Reality, Augmented Reality, Blended Learning, Design Thinking, Connected Learning) through online and group discussion.
- 5. Participants will be able to choose, and share with others, appropriate apps that allow for purposeful use of technology in their classroom.
- 6. Participants will create a series of lessons by creating *HyperDocs* (hyperlinked documents and resources) using Google Apps and other technologies. Planning these lessons will require using the Trudacot method and identifying the Four C's, DOK, 2016 ISTE Standards, and curricular standards.

7. Participants will explore a variety of rubrics for assessment of student work that incorporates technology and will create rubrics for self, peer, and teacher assessment of the lessons/unit created.

Required Reading (print - books will be included with registration):

- 1. Sheninger, Eric C. <u>Uncommon Learning: Creating Schools That Work for Kids</u>. Thousand Oaks, CA: Corwin, 2016. Print.
- Highfill, Lisa, Kelly Hilton, and Sarah Landis. <u>The HyperDoc Handbook: Digital Lesson</u> <u>Design Using Google Apps</u>. Irvine, CA: EdTechTeam, 2016. Print.

Required Reading/Resources (online):

- 1. McLeod, Scott. "<u>Trudacot</u>." *Dangerously Irrelevant* | @*mcleod*. N.p., n.d. Web. 20 Mar. 2017. <<u>http://dangerouslyirrelevant.org/resources/trudacot</u>>.
- McLeod, Scott, and Julie Graber. "<u>Trudacot V2 Annotated</u>." *Google Docs*. N.p., n.d. Web. 09 Feb. 2017. <<u>https://docs.google.com/document/d/147Pqvr32qwnPXUBmUM1r8p10unZ-pID_cgLjkGwwAus/edit</u>>.
- 3. "<u>ISTE Standards for Students</u>." *ISTE*. N.p., 2016. Web. 20 Mar. 2017. <<u>https://www.iste.org/standards/standards/for-students-2016</u>>.
- "Vermont Agency of Education." <u>Transferable Skills</u> | Agency of Education. Vermont Agency of Education, n.d. Web. 20 Mar. 2017. <<u>http://education.vermont.gov/student-</u> learning/proficiency-based-learning/transferable-skill
- Kurdyla, Edward. "<u>The Philosophy of Educational Makerspaces: Part 1 of Making an</u> <u>Educational Makerspace</u>." Teacher Librarian RSS. N.p., 06 May 2015. Web. 09 Feb. 2017. <<u>http://teacherlibrarian.com/2014/06/18/educational-makerspaces/</u>>
- 6. The Four C's Chart < http://www.p21.org/storage/documents/4csposter.pdf >
- 7. <u>The DOK Chart <http://static.pdesas.org/content/documents/M1-</u> <u>Slide_19_DOK_Wheel_Slide.pdf</u>>

Supplementary Materials:

- Vicki Davis Cool Cat Teacher Handout 200+ Fantastic Tools for Schools
- Digital backpack (SBSchools)
- <u>Trudacot</u> eSchool News
- Hyperdoc Resource Page

Required Reading Prior to First Class will also require online discussion:

<u>UnCommon Learning</u> - Preface, Chapters 1-3 The HyperDoc Handbook - pages 1-22

Day 1:

- Theme (Morning):
 - Virtual Reality
 - Google Cardboard
 - Google Expeditions
 - STEM/STEAM,

- Makerspaces
- Coding
- Theme (Afternoon): Technology Integration (prior **required reading** will prepare participants for afternoon activities)
 - SAMR
 - TPCK
 - Trudacot
 - ISTE Standards
 - Transferable skills
- Homework: Reading: UnCommon Learning Chapter 5 & 8

Day 2:

- Theme: Filling your Toolbox
 - Tools to Create
 - Tools for Digital Directors, Developers, Designers
 - Tools to Collaborate
 - Tools to Connect
 - Tools for Critical Thinking
- Homework Reading HyperDoc Handbook Pages 23-75

Day 3

- Theme: Blended/Connected Learning
 - UdL
 - **5Es**
 - DOK
 - Creating HyperDocs
- Homework Reading <u>UnCommon Learning</u> Chapters 9 & 10

Day 4:

- Theme: Assessment of Technology Integrated Lessons
 - Formative assessment technology tools and apps
 - Summative assessment technology tools and apps
 - What makes a good rubric? Examine rubrics in the resources that assess both technology and curricular standards.
 - How to assess technology integrated lessons. Examine prepared rubrics that assess a variety of projects at various grade levels and content areas
 - Creating Rubrics using apps and tools that can be used for self, peer and teacher assessment; how to include them within the HyperDoc
- Homework Final Project Work

Day 5:

• Theme: Final Project Work/Share, Reflection and Goal Achievement

• Participants will complete project work, share their projects, and reflect upon the hyperdoc lessons they have created to indicate understanding and achievement of class goals.

Grading

Attendance/Participation	20%
Presentations (Individual & Small Group)	20%
Online Discussions/Readings and Reflections	20%
Final Project & Reflection	40%

Hours

Online Work between class meetings and prior to class	8 Hours
Face to Face (5 X 6.5 Hours)	32.5
Total Hours	40.5