

OTL545: TECHNOLOGY AND INNOVATION

#### **Credit Hours: 3**

**Contact Hours:** This is a 3-credit course, offered in accelerated format. This means that 16 weeks of material is covered in 8 weeks. The exact number of hours per week that you can expect to spend on each course will vary based upon the weekly coursework, as well as your study style and preferences. You should plan to spend 14-20 hours per week in each course reading material, interacting on the discussion boards, writing papers, completing projects, and doing research.

# **COURSE DESCRIPTION AND OUTCOMES**

# **Course Description:**

This course presents how present and emerging technologies are transforming society and schools and the implications these changes have for teaching and learning. Strategies for building students' critical thinking habits, innovation, and creativity with respect to new technologies and media will be developed in the context of 21st century literacies (information, visual, etc.). Students will explore the practical context for the use of technology and will develop skills that identify and address the challenge of using technology creatively in teaching and learning situations today.

#### **Course Overview:**

This course is designed to give students an opportunity to explore new and emerging educational technologies as well as give them instructional strategies to help them integrate technology in new and innovative ways with their students. Topics in this course include next generation learning ecosystems, personalized learning strategies for Gen Z, and creating a connected classroom. Students in this course will have the opportunity to build skills in lesson design utilizing LMS functionality, video, podcasting, hyperdocs, apps and mobile learning, and digital collaboration tools. Students will also gain real-world experience implementing these types of technology tools and instructional strategies and reflect on their experiences to build competencies in educational technology and innovation that they can implement immediately in their classrooms.

# **Course Learning Outcomes:**

- 1. Prepare for the changing of students, learning, and teaching in the digital age.
- 2. Design innovative and engaging authentic tasks for the classroom that integrate media and technology.
- 3. Develop lessons that promote 21st century literacies/fluencies in the classroom.
- 4. Design innovative materials for the classroom using a variety of current technologies.
- 5. Manage the challenges of using technology creatively.

# PARTICIPATION & ATTENDANCE

Prompt and consistent attendance in your online courses is essential for your success at CSU-Global Campus. Failure to verify your attendance within the first 7 days of this course may result in your withdrawal. If for some reason you would like to drop a course, please contact your advisor.

Online classes have deadlines, assignments, and participation requirements just like on-campus classes. Budget your time carefully and keep an open line of communication with your instructor. If you are having technical problems, problems with your assignments, or other problems that are impeding your progress, let your instructor know as soon as possible.

# **COURSE MATERIALS**

Textbook Information is located in the CSU-Global Booklist on the Student Portal.

### **COURSE SCHEDULE**

#### **Due Dates**

The Academic Week at CSU-Global begins on Monday and ends the following Sunday.

- Discussion Boards: The original post must be completed by Thursday at 11:59 p.m. MT and Peer Responses posted by Sunday 11:59 p.m. MT. Late posts may not be awarded points.
- Critical Thinking: Assignments are due Sunday at 11:59 p.m. MT.

#### WEEKLY READING AND ASSIGNMENT DETAILS

### Module 1

## Readings

- Elias, M. (2016). What kind of ecosystem is your school? Edutopia. Retrieved from https://www.edutopia.org/blog/what-kind-ecosystem-your-school-maurice-elias
- Maxwell, C. (2016). What blended learning is and isn't. Blended Learning Universe. Retrieved from http://www.blendedlearning.org/what-blended-learning-is-and-isnt/
- UDL Center. (2014). What is meant by the term curriculum? Retrieved from http://www.udlcenter.org/aboutudl/udlcurriculum
- White, J. (2017). Which blended learning model(s) do you use? Blended Learning Universe. Retrieved from http://www.blendedlearning.org/which-blended-learning-model-do-you-use/

#### Discussion (25 points)

#### Critical Thinking: Select an LMS and Blended Learning Model (75 points)

The ultimate goal of the assignments in this course is to help you integrate technology tools and resources that transform the classroom to a next generation education ecosystem. To begin, you will need to set up a virtual extension of the face-to-face classroom—a virtual learning community for you and your students. You will also need to select a blended learning model.

• If you are currently in a school with an LMS, you may need to work with your IT Department to get access for your CSU-Global Instructor.

- If you are not currently in a school situation (for example, not currently teaching, a corporate trainer, etc.) you will want to consider choosing a free Learning Management System.
- You will also need to have at least one student to teach during this course. You will need access to your student(s) in Module 3 and Module 7. You can teach your own children, neighbors, relatives, friends, etc. because the teaching environment will be virtual.

# There are two parts to this assignment:

Part 1: Select a learning management system (LMS). If you are currently teaching and your school/district uses an LMS, you may use it for the course. You just need to be sure your instructor can access any assignments you complete within the LMS. If you are not currently teaching, you may sign-up to use a free LMS. Google Classroom, Schoology, and Edmodo are free Learning Management Systems used in K12. You can also download a free app for Google Classroom, Schoology, and Edmodo. We will look at mobile computing in a future module. For Part 1 this week, decide on a LMS that you will use for the course. Be sure your instructor can access your LMS.

a. Sign up for a free LMS. Save your login and password information. Decide how you will provide access to your instructor. For example, you may need to invite the instructor, or you may need to share an access code with the instructor, etc. Share access information with your instructor.

Part 2: Choose a blended learning model that you will use throughout the course. If you are currently teaching and using a blended learning model, you may continue to use it. If you are not currently teaching, think about the school or district where you plan to teach as you select a model. For Part 2 this week, decide on a blended learning model that you will use for the course.

- b. Conduct an initial analysis and then synthesize the results to identify a blended learning model. Use the worksheet at: https://www.blendedlearning.org/wp-content/uploads/2016/10/Choose-the-model-worksheet-8.pdf. You may also find it helpful to review the Blended in Action Video Profiles at: https://www.blendedlearning.org/directory/.
- c. Your analysis should also include considerations for addressing the three principles of universal design for learning.

# FOR SUBMISSION: You will submit two different documents for this assignment (for Part 1 and Part 2)

- 1. PART 1: OTL545 Critical Thinking Template: Download the template from the Module 1 Materials folder. You will use the same template in multiple weeks of the course, therefore, save it and complete only the sections as they are outlined in the directions each week. For Module 1, add the following elements of Part 1 to the template.
  - a. Name of the LMS that you will use for the course
  - b. All necessary login information that your instructor will need to "visit" your virtual classroom throughout the course.
- 2. **PART 2:** In either a Word doc, or, to get comfortable using digital word processing tools, a Google doc, identify the blended learning model that you will use during the course. Include a brief discussion of the process you used to analyze your teaching circumstances as you selected a model. Then provide a brief rationale for your choice based on your analysis. Support your choice with at least two scholarly sources. Your paper should be one to two pages in length,

well-organized and thorough, and adhere to guidelines for academic writing outlined in the CSU-Global Guide to Writing and APA.

If you use a Google doc, for the purposes of submission, download the file from Google doc as a Word document and upload it using the assignment link provided. On the title page of the assignment, make sure you add a link to your Google doc.

# Module 2

# Readings

- Green, C. (2017). *Open licensing and open education licensing policy.* Creative Commons. Retrieved from https://creativecommons.org/2017/06/05/open-education/
- Schleicher, A. (2015). Students, computers, and learning: Where's the connection? Retrieved from http://oecdeducationtoday.blogspot.com/2015/09/students-computers-and-learning-wheres.html

# Discussion (25 points)

# Critical Thinking: Standards and Assessments (75 points)

Each week you will apply what you learn inside your learning management system (LMS). Each week you will also use the OTL545 Critical Thinking template to tell your instructor what content you added in your LMS, and exactly where the instructor will find the new work inside your LMS.

#### For Module 2:

Identify at least one curriculum objective and one ISTE standard for students. Identify what your target audience or student(s) should master in the lesson you are developing inside your LMS. Then, use this information to create an electronic diagnostic assessment instrument that aligns with your choice of standards. You will use this diagnostic assessment to personalize the learning for student(s) as you add content and technologies in each module. Link or embed the diagnostic assessment within your online classroom. Though you may use an electronic tool of your choice, it is recommended that you use a Google form. Access to directors for creating a Google form are available in the assignment prompt in the Module 2 Materials folder. Have your target audience or learner(s) take the online assessment. Use the data from the pre-assessment to select OERs that are matched to learner needs. Link or embed at least two OERs inside your online course.

Update the OTL545 Critical Thinking template by filling in the information for Module 2 Curriculum Choices. Submit your updated Critical Thinking template to the Module 2 folder. Ensure at least one scholarly research source has informed your practice and responses. Cite the source according to the CSU-Global Guide to Writing and APA.

**NOTE**: Be sure your template includes all the login information for your instructor to access your LMS and materials you are adding to it.

#### Module 3

**Readings** 

- Abel, N. (2017). What is personalized learning? iNACOL. Retrieved from https://www.inacol.org/news/what-is-personalized-learning/
- Brookhouser, K. (2016). Writing is no longer enough [Lynda.com video file]. Retrieved from https://www.lynda.com/Higher-Education-tutorials/Writing-longer-enough/417096/476799-4.html (You can access this video from the Lynda.com link in the Module 3 folder.)
- EdSurge Guide. (2017). What personalized learning looks like across the country: The 2017 fifty states project. Retrieved from https://www.edsurge.com/research/guides/what-personalized-learning-looks-like-across-the-country-the-2017-fifty-states-project

### Discussion (25 points)

### Critical Thinking: Creating and Assigning a Hyperdoc for Personalized Learning (75 points)

For your Module 3 Critical Thinking Assignment, you will build a hyperdoc and link or embed it within your learning management system. At a minimum, your hyperdoc should include:

- 1. Lesson Title
- 2. Directions for learners/students (this explanation may be in the form of text, audio, or video)
- 3. Embedded video (video you create or video that you select from an existing source)
- 4. Hypertext links to a minimum of two resources for students to explore (these may be related OERs, an online museum exhibit, an infographic, electronic library resource, etc.)
- 5. At least one related activity for students to complete
- 6. At least one activity to extend the learning (use a link to an outside activity, for example, an online game, a class blog, etc.).

To get started, review some of the resources and examples provided in the Module 3 Interactive Lecture. You might also review the hyperdoc templates available through a link in the Critical Thinking Assignment prompt in the Module 3 Materials folder. Select a template that best matches the needs of your target audience or student(s), based on the results of the diagnostic assessment administered in Module 2. You may even decide to use one of the templates with some modifications. Ensure at least one scholarly research source has informed your doc design or included content. Cite the source (in the template if not appropriate to use in the hyperdoc itself) according to the *CSU-Global Guide to Writing and APA*.

Update the OTL545 Critical Thinking template by filling in the information for Module 3 Personalized Learning. Submit your updated Critical Thinking template to the Module 3 folder. Be sure to include information that tells your instructor exactly where you added the Hyperdoc to your LMS.

**NOTE:** Be sure your template includes all the login information for your instructor to access your LMS and materials you are adding to it.

# Module 4

# Readings

- iNACOL. (n.d.). Planning and designing for K-12 next generation learning. Retrieved from https://www.inacol.org/resource/rethink-planning-and-designing-for-k-12-next-generation-learning/ (Read: pages 2, 4-5)
- · Watson, J., Pape, L., Murin, A., Gemin, B., & Vashaw, L. (2015). *Keeping pace with K12 digital learning: An annual review of policy and practice* (11th ed.). Retrieved from

https://www.inacol.org/wp-content/uploads/2015/03/EEG\_KP2014-fnl-lr.pdf (Read: pages 5-7, 31-35)

# Discussion (25 points)

# **Critical Thinking: Selecting, Aligning, and Assigning Apps (75 points)**

For your Module 4 Critical Thinking Assignment, you will select apps that are aligned with the curriculum standard that you are teaching and that support the needs of your students, based on the diagnostic assessment from Module 2.

There are many apps that can be added as extensions to Google Chrome; see an example in the Module 4 Critical Thinking prompt in the Module 4 Materials folder.

As you begin the selection process for apps for your lesson, you might also think about apps that have applicability to multiple curriculum and ISTE standards, for example, writing and augmented reality apps. You may change your content and ISTE standards this week, if you would like. Once you decide on the content and ISTE standards that you will teach, review the resources in the Interactive Lecture to get started with the selection process. Remember that some apps will work only on certain operating systems while others work on multiple platforms. These are also considerations as you select apps for your target audience or student(s).

Provide directions and expectations for the apps lesson inside your LMS. You may use any format you wish to create the lesson. You might like to experiment with the use of a different hyperdoc format this week. This is also a good opportunity for you to work more with audio and video inside your LMS. At a minimum, your app lesson should include:

- 1. Lesson Title
- 2. At least one content objective and one ISTE standard
- 3. Directions for learners/students that may use text, audio, video, or maybe a combination
- 4. At least two apps
- 5. At least one related activity for students to complete using an app.

Update the OTL545 Critical Thinking template by filling in the information for Module 4 Apps. Submit your updated Critical Thinking template to the Module 4 folder. Be sure to include information that tells your instructor exactly where you added the app assignment to your LMS. Also ensure at least one scholarly research source has informed your practice and responses in this assignment. Cite the source according to the *CSU-Global Guide to Writing and APA*.

**NOTE**: Be sure your template includes all the login information for your instructor to access your LMS and materials you are adding to it.

### Module 5

# Readings

Doubet, K., & Carbaugh, E. (2015). Differentiating instruction using mobile technology tools. ASCD Express, 10(17). Retrieved from http://www.ascd.org/ascd-express/vol10/1017-carbaugh.aspx

- The New Media Consortium. (2017). *NMC/CoSN horizon report 2017 K12 edition*. Download the report from: http://www.nmc.org/publication/nmccosn-horizon-report-2017-k-12-edition/ (Read: pages 4-9, 14-15)
- Rosendranz, S. (2015). Field notes: Gripped classrooms. *ASCD Express, 10*(17). Retrieved from http://www.ascd.org/ascd-express/vol10/1017-rosenkranz.aspx

# Discussion (25 points)

**Critical Thinking: Integrating Mobile Learning (75 points)** 

There are two parts to the Module 5 Critical Thinking Assignment:

- 1. Creation of content for mobile learning inside your LMS.
- 2. Application of responsive web design (RWD). This includes a one- to two-page analysis/reflection about the functionality of your content on a mobile device. As you add content for the mobile lesson inside your LMS, review it via the LMS app on a mobile device. You should be checking content primarily for accessibility and functionality.

For Part 1: Provide directions and expectations for a mobile lesson inside your LMS. You may work with the standards you have used in previous weeks or choose different standards. Just ensure all work for the mobile lesson is aligned to the standards you are teaching and that they support the needs of your students, based on the diagnostic assessment conducted in Module 2. At a minimum, your mobile lesson should include:

- 1. Lesson Title
- 2. At least one content standard and one ISTE standard
- 3. Directions for learners/students that may use text, audio, images, video, or any combination of these
- 4. Podcast content (created by you or you might curate it; just be sure it is well matched to the lesson objectives)
- 5. At least one interactive activity, aligned to the content and ISTE standard, for students to complete using a mobile device (created by you using a tool like H5P or PearDeck, or curated interactive content; it could be a formative assessment created in a Google doc or other digital resources, etc.). Refer to the resources included in the interactive lecture.

**For Part 2**: In a Word or Google Doc, discuss the process you used to review your content for mobile learning via the app for your LMS. Include discussion of how RWD supports the principles of UDL. Your paper should be one to two pages, well-organized and thorough, and cite at least one scholarly source. Adhere to guidelines for academic writing outlined in the *CSU-Global Guide to Writing and APA*. Download the file from Google Docs as a Word document and upload it using the assignment link provided. Make sure you add a link to your Google Doc on the title page.

Update the OTL545 Critical Thinking template by filling in the information for Module 5 Mobile Learning. Submit your updated Critical Thinking template to the Module 5 folder. Be sure to include information that tells your instructor exactly where you added the app assignment to your LMS.

**NOTE**: Be sure your template includes all the login information for your instructor to access your LMS and the materials you are adding to it.

# Module 6

### Readings

- Liebtag, E. (2016). Teaching is a project-based profession: 10 PBL teacher mindsets. Getting Smart.
  Retrieved from http://www.gettingsmart.com/2016/09/teaching-is-a-project-based-profession-10-pbl-teacher-mindsets/
- Vander Ark, T. (2016). Developing minds ready for the innovation economy. Getting Smart. Retrieved from http://www.gettingsmart.com/2016/08/developing-minds-ready-for-the-innovation-economy/
- Wargo, K., & Chisam, J. (2017). Developing global citizens through project-based learning. ASCD Express, 12(20). Retrieved from http://www.ascd.org/ascd-express/vol12/1220-wargo.aspx

# Discussion (25 points)

# **Critical Thinking: Collaborative Digital Projects (75 points)**

Provide guidance and expectations for student collaborative projects inside your LMS. You may work with the standards you have used in previous weeks or choose different standards. Just ensure all work for the collaborative guidance is aligned to the standards you are teaching and that they support the needs of your students based on the diagnostic assessment conducted in Module 2. At a minimum, the following items should be included as part of an initial lesson that introduces students to a collaborative project:

- 1. At least one content standard and one ISTE standard
- Guidance for learners/students that may use text, audio, images, video, or any combination of these
- 3. Integration of social media
- 4. Cloud tool for team brainstorming, research, notes, etc. (i.e., a Google Doc template or a team or group space inside your LMS)
- 5. Choice of digital tools for teams to collaborate on a final presentation to share research findings, recommendations, etc., online (i.e., Google presentation, podcast, etc.)

Update the OTL545 Critical Thinking template by filling in the information for Module 6 Collaboration. Ensure at least one scholarly research source has informed your practice and responses for this assignment. Cite the source according to the *CSU-Global Guide to Writing and APA*. Submit your updated Critical Thinking template to the Module 6 folder. Be sure to include information that tells your instructor exactly where you added the app assignment to your LMS.

**NOTE:** Be sure your template includes all the login information for your instructor to access your LMS and the materials you are adding to it.

**REMINDER:** During Module 7, using your LMS, you will teach one of the lessons to your target audience or student(s). Begin thinking and planning ahead. For example, have you enrolled learners in the course in your LMS? Learners may need to know how to access the course. You are encouraged to ask some of your students to download the app for your LMS and have them engage in some of the learning via the app. The more you plan ahead to use and experiment with various aspects of the technology, the better!

#### Module 7

# Readings

- Blumengarten, J., Krakower, B. & Naugle, P. (2017). Tools and projects to help your students connect with the world. ASCD Express, 12(20). Retrieved from http://www.ascd.org/ascdexpress/vol12/1220-blumengarten.aspx
- Educator Innovator, Powered by the NWP. (n.d.). Why connected learning? Retrieved from http://educatorinnovator.org/why-connected-learning/
- Johnson, M., Riel, R., & Germain-Froese, B. (2016). Connected to learn: Teachers' experiences with networked technologies in the classroom. Canadian Teachers Federation. Full Text from ERIC Available online: http://www.eric.ed.gov/contentdelivery/servlet/ERICServlet?accno=ED573421

## Discussion (25 points)

# Module 8

#### Readings

NMC Horizon Project. (2017). Digital literacy in higher education, Part II: An NMC horizon project strategic brief, 3.4. Retrieved from https://cdn.nmc.org/media/2017-nmc-strategic-brief-digital-literacy-in-higher-education-II.pdf (Read "Conclusion" pp.33-34.)

# Discussion (25 points)

# Portfolio Project: Virtual Extension of the Classroom (350 points)

Throughout the course you have used the learning management system that you identified in Module 1 to organize instructional resources to guide student learning that integrates technology in a variety of ways and using multiple technology resources. For your Portfolio Project, submit the following:

### 1. Course/class inside your LMS that includes:

- a. Each of the required components for Modules 1-6
  - i. Revisions to Modules 1-6 in the LMS, based on instructor feedback
- b. At least one artifact to demonstrate implementation (something a student produced as a result of the lesson implementation during Module 7; be mindful of student confidentiality)
  - i. The artifact should be submitted by the student inside your LMS (be sure your instructor knows exactly where the artifact is located in your LMS)
- c. Information for your instructor to access your course/class inside your LMS.
  - i. Login information for your instructor
  - ii. Directions to your instructor about changes you made, based on teaching in Module 7, and exactly where to find what you added, changed, etc.

### 2. Self-reflection/analysis that fully addresses A, B, and C below.

- a. Graph of student results of the pre- and post-assessment data; include graphs of both preand post- results (three to four pages)
  - i. Analysis of the comparison of the pre- and post-assessment data
  - ii. Discussion of student artifact (produced as part of the lesson in Module 7)
  - iii. How did your students respond to the lesson and learning?
  - iv. Describe levels of engagement in the learning
  - v. Discuss any surprises about how your learners responded to the lesson
  - vi. Discussion of changes made to the LMS, based on analysis of pre- and postassessment data *and* student response to the lesson
  - vii. Integrate and cite at least two scholarly sources
- b. Discussion of the teaching/learning experience (two to three pages)

- i. Going forward, how do you plan to build on what you do with technology in your teaching practices?
- ii. How will your knowledge of big ideas, such as the principles of universal design for learning (UDL), project-based learning, and blended learning, be applied as you continue to integrate technology in your teaching?
- iii. Integrate and cite at least two scholarly sources
- c. Professional plan for staying abreast of emerging trends in educational technology and innovative teaching (two to three pages)
  - i. Include discussion of why it is important to look and plan ahead for technology innovation
  - ii. Include discussion of two-three specific things you will do
  - iii. Why would this planning be important should you find yourself teaching in a school/district without a learning management system (LMS)?
  - iv. How will your plan use technology to connect, share, and learn with and from colleagues, locally and more globally?
  - v. Integrate and cite at least two scholarly sources

Your reflection/analysis should be seven to ten pages in length, not including the title and References pages. It should be well-organized and thorough, and adhere to guidelines for academic writing outlined in the CSU-Global Guide to Writing and APA. Include a title and References page.

If you use a Google Doc, download the file as a Word document and upload it using the assignment link provided. Make sure you add a link to your Google Doc on the title page.

# **COURSE POLICIES**

Grading Scale	
А	95.0 – 100
A-	90.0 – 94.9
B+	86.7 – 89.9
В	83.3 – 86.6
B-	80.0 – 83.2
C+	75.0 – 79.9
С	70.0 – 74.9
D	60.0 – 69.9
F	59.9 or below

# **Course Grading**

20% Discussion Participation45% Critical Thinking Assignments35% Final Portfolio Project

### **IN-CLASSROOM POLICIES**

For information on late work and incomplete grade policies, please refer to our <u>In-Classroom Student Policies</u> <u>and Guidelines</u> or the Academic Catalog for comprehensive documentation of CSU-Global institutional policies.

# **Academic Integrity**

Students must assume responsibility for maintaining honesty in all work submitted for credit and in any other work designated by the instructor of the course. Academic dishonesty includes cheating, fabrication, facilitating academic dishonesty, plagiarism, reusing /re-purposing your own work (see *CSU-Global Guide to Writing and APA* for percentage of repurposed work that can be used in an assignment), unauthorized possession of academic materials, and unauthorized collaboration. The CSU-Global Library provides information on how students can avoid plagiarism by understanding what it is and how to use the Library and Internet resources.

## **Citing Sources with APA Style**

All students are expected to follow the *CSU-Global Guide to Writing and APA* when citing in APA (based on the APA Style Manual, 6th edition) for all assignments. For details on CSU-Global APA style, please review the APA resources within the CSU-Global Library under the "APA Guide & Resources" link. A link to this document should also be provided within most assignment descriptions in your course.

# **Disability Services Statement**

CSU–Global is committed to providing reasonable accommodations for all persons with disabilities. Any student with a documented disability requesting academic accommodations should contact the Disability Resource Coordinator at 720-279-0650 and/or email <a href="mailto:ada@CSUGlobal.edu">ada@CSUGlobal.edu</a> for additional information to coordinate reasonable accommodations for students with documented disabilities.

### Netiquette

Respect the diversity of opinions among the instructor and classmates and engage with them in a courteous, respectful, and professional manner. All posts and classroom communication must be conducted in accordance with the student code of conduct. Think before you push the Send button. Did you say just what you meant? How will the person on the other end read the words?

Maintain an environment free of harassment, stalking, threats, abuse, insults or humiliation toward the instructor and classmates. This includes, but is not limited to, demeaning written or oral comments of an ethnic, religious, age, disability, sexist (or sexual orientation), or racist nature; and the unwanted sexual advances or intimidations by email, or on discussion boards and other postings within or connected to the online classroom. If you have concerns about something that has been said, please let your instructor know.