



**DOMINICAN
UNIVERSITY**
of CALIFORNIA
School of Liberal Arts and Education

IMPLEMENTING A MAKER SPACE IN YOUR SCHOOL

EDUO 9871 3 Semester Credits/Units

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Public Syllabus

Note: This is a Public syllabus of the course. For a full detailed syllabus please email the instructor.

Course Overview

Participants in this course will evaluate and analyze the rationale for integrating creativity and innovation in education and then work through a systematic process to design and implement a Maker Space in their school. Maker Spaces promote learning through tinkering and creating and are as unique and diverse as the learners themselves. A mixture of arts and crafts, science, and technology with creativity, innovation and play, they are fast becoming a critical part of every school, especially school libraries.

Course Objectives:

In this course, participants will have the opportunity to:

- gain a better awareness and understanding of the importance of integrating creativity and innovation in education
- gain a better awareness and understanding of the process and challenges of designing and implementing a Maker Space
- implement a Maker Space in their school

Course Relation to CCS or other Professional Standards

Maker Spaces by their very diverse and creative construct are designed to encourage unexpected outcomes. They can also be designed to include curricular activities that are specifically guided by and align with the following standards:

- CCSS
 - problem-solving
 - critical thinking
 - problem identification
 - effective communication of ideas
 - evaluation and refinement of creative ideas

- ISTE
 - empowered learner
 - digital citizen
 - knowledge constructor
 - innovative designer
 - computational thinker
 - creative communicator
 - global collaborator

Required Reading:

1. *Worlds of Making: Best Practices for Establishing a Makerspace for Your School*, Laura Fleming, Corwin Connected Educators Series, 1st Edition, 2015

Course Activities and Assignments: All written assignments in this course are submitted for review either in the **Dropbox** or the **Class Forum**. **Dropbox** papers should be 2-3 pages, ss, 12 pt. type.

Class Forum posts can be any length as long as they are thoughtful and demonstrate an understanding of the prompt.

DROPBOX: Make sure you place your full name, course number and writing topic number at the top of each document page. Name each file submitted to the Dropbox with your last name and assignment topic number (i.e. BrownTopic3).

CLASS FORUM: Please post at least once to each numbered prompt and check back to read posts or participate further in the discussions. Sharing your experiences and challenges and networking with other "Creative Leaders" like yourself is an invaluable resource.

GRADES: You will receive feedback from me within 2-5 days indicating successful completion of each assignment or the need for revision. Assignment grades will be averaged for the final course grade. The grading rubric can be found below.

All assignments for each activity must be completed before moving on to the next activity.

ACTIVITY 1 - Making the case for creativity and innovation in education.

DROPBOX - writing assignment topic 1

CLASS FORUM - prompt 1

ACTIVITY 2 - Field Trips

DROPBOX - writing assignment topic 2

CLASS FORUM - prompt 2

Activities 3, 4 & 5 are expected to occupy an in-depth amount of time (35+ hours) as you process through the design cycle and implementation of a school Maker Space.

ACTIVITY 3 - Planning a successful Maker Space in your school.

DROPBOX - writing assignment topic 3

CLASS FORUM - prompt 3

ACTIVITY 4 - Designing an inspirational Maker Space unique to your school.

DROPBOX - writing assignment topic 4

CLASS FORUM - prompt 4

ACTIVITY 5 - Make purchases, Set-up, Implement and Evaluate Maker Space.

DROPBOX - writing assignment 5

CLASS FORUM - prompt 5

COURSE ASSESSMENT RUBRIC:

EXCELLENT ^[1] _[SEP] Exceeds Course Objectives: A to A-	ACCEPTABLE ^[1] _[SEP] Meets Course Objectives; B+ to B-	NOT ACCEPTABLE Needs Improvement: Resubmit Work Suggested: C or below
All required written coursework was submitted and reflected in-depth understanding of course objectives.	All required written coursework was submitted and reflected a good understanding of course objectives.	Written coursework submitted showed little or no understanding of course objectives and/or some work was not submitted or re-submitted.
Written coursework submitted demonstrated an exemplary command of analysis and synthesis-level thinking and writing.	Written coursework submitted demonstrated a proficient command of analysis and synthesis-level thinking and writing.	Written coursework submitted did not demonstrate a command of analysis and synthesis-level thinking or writing.
Written coursework submitted was organized, clearly articulated, and virtually free of spelling and/or grammatical errors.	Written coursework submitted was organized, clearly articulated, and virtually free of spelling and/or grammatical errors.	Work submitted was not organized nor clearly articulated, and/or contained critical spelling and grammatical errors.
All comments posted to the Class Forum were constructive and thoughtful and demonstrated an understanding of the prompts.	Most comments posted to the Class Forum were constructive and thoughtful and demonstrated an understanding of the prompts.	Comments posted to the Class Forum lacked constructive and thoughtful comments and an understanding of the prompts.
Non-original content was properly cited.	Non-original content was properly cited.	No citations were present.
Design outline was exceptional and submitted to instructor for review prior to implementation.	Design outline was detailed and submitted to instructor for review prior to implementation.	Design outline lacked details and/or was not submitted to instructor for review prior to implementation.
Maker Space was implemented as planned and an evaluation was submitted in writing with photo evidence.	Maker Space was implemented mostly as planned and an evaluation was submitted in writing with photo evidence.	Maker Space implementation was incomplete.

Addendum:

Websites:

- Makerspace.com
- <http://makerfaire.com>
- <http://makered.org>

Internet

- https://images.search.yahoo.com/search/images;_ylt=AwrBT8JZMmlYPPAARcFXNy0A;_ylu=X3oDMTEyYtLhc3ViBGNvbG8DYmYxBHBvcwMxBHZ0aWQDQjI1NDVfMQRzZWMDc2M-?p=maker+spaces&fr=sfp
- https://www.pinterest.com/cari_young/library-makerspaces/
- <http://oedb.org/ilibrarian/a-librarians-guide-to-makerspaces/>
- <http://evancedgames.com/2013/10/24/transform-your-library-with-a-low-budget-makerspace/>
- <http://www.thedigitalshift.com/2012/10/public-services/the-makings-of-maker-spaces-part-1-space-for-creation-not-just-consumption/#>

Clubs

- <http://makered.org/youngmakers/>
- <http://www.fortcollinscreatorhub.org>

fairs/conferences/symposiums/conventions

- <https://makerfairemilwaukee.com>
- <http://makerfaire.com>
- 5th annual California STEM Symposium in San Francisco, December 10-11, 2017
- FAB Now 2017 - The Maker Conference & EXPO of The Texas MAKERS Guild!

books/publications/supply resources

- <http://makezine.com>
- *The Big Book of Makerspace Projects: Inspiring Makers to Experiment, Create, and Learn* by Coleen Graves
- *Free to Make: How the Maker Movement is Changing Our Schools, Our Jobs, and Our Minds* by Dale Dougherty
- *Makeology: Makerspaces as Learning Environments (Volume 1)* Kylie Pepler, Editor
- <https://www.inventables.com>
- *Invent To Learn Making, Tinkering, and Engineering in the Classroom* by Sylvia Libow Martinez & Gary Stager

articles

- <https://thejournal.com/articles/2016/10/20/what-makes-a-great-makerspace.aspx>
- http://www.huffingtonpost.com/brit-morin/what-is-the-maker-movemen_b_3201977.html
- <http://www.newsweek.com/2014/09/19/maker-movement-reinvents-education-268739.html>
- <https://www.weareteachers.com/making-matters-how-the-maker-movement-is-transforming-education/>
- <http://remakelearning.org/blog/2014/06/18/president-obama-hosts-the-first-ever-white-house-maker-faire/>
- <http://remakelearning.org/blog/2014/09/22/the-common-core-meets-the-maker-movement/>
- <https://www.iste.org/explore/ArticleDetail?articleid=103>

- <http://www.gettingsmart.com/2016/04/top-10-things-a-makerspace-needs/>
- <http://www.gettingsmart.com/2015/10/the-maker-movement-what-it-looks-like-mindsets-and-motivation/>