

## INSTRUCTOR

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 Office hours: Tuesday and Thursday 11 - 12:00

## COURSE INFORMATION

LS 301 - Section  
 Class times: Tuesdays and Thursdays 9:30 - 10:50 am  
 Location: SESP 303  
 Course homepage: <https://d2l.depaul.edu/>

## COURSE SUMMARY

This course explores learning theories, design principals, experience design frameworks, and their application through the design of learning environments created to engage individual youth, youth from shared geographic neighborhoods, and an entire districts' middle school population in using and keeping their computational making skills. Students will examine a variety of learning-oriented app, spaces, and programs to understand learning goals, tasks, and learning supports. Working individually and in groups, students will gain practical experience designing learning environments and experiences that are contextually relevant.

## LEARNING OBJECTIVES

1. Students will understand theories of learning and their implications for the design of learning technologies.
2. Students will be able to critically evaluate various types of learning technologies by analyzing learning goals, tasks, and learning supports.
3. Students will gain practical experience in conceptualizing, designing, developing, documenting, and researching software intended to support learning.
4. Students will gain experience creating pathways, work flows and experience maps.

## REQUIRED TEXTS

No required texts. Readings will be provided.

## CLASS FORMAT

Class meetings will involve lecture, group discussions, hands-on activities, design work, critique, and presentations of projects. Students should expect to spend 5 hours per week on reading, research, design, development, and writing activities outside of class time. For the most part. Tuesday will focus on reading discussions and Thursdays the application of theory through workshops and group project work.

**Class Participation.** This portion of the grade is based on being an active participant in discussions, activities, and group work. Grade is based on compliance with Attendance, Class Participation, Community Engagement, and Attitude expectations.

## EVALUATION & GRADING

| Date         | Requirement                          | Grade Proportion |
|--------------|--------------------------------------|------------------|
| Ongoing      | Class Participation                  | 10%              |
| Ongoing      | Reading Responses (3-2-1)            | 20%              |
| Oct 29, 2019 | Personal Learning Ecosystem Analysis | 20%              |
| Nov 21, 2019 | A2I Middle Grades Pathway Map        | 20%              |
| Dec 3, 2019  | EL3 Monthly Design Challenge         | 30%              |
|              | Total                                | 100%             |

**Reading Responses (Individual).** Short reflection assignments, 3-2-1s, will be assigned most weeks with response due Monday by 8 pm.

**Equity in Learning Spaces and Opportunities Mapping Project (Individual).** Students will develop an understanding of the role of the built environment as a mediator in how and where youth, families, and communities engage in learning through comparative analysis of their home built OST environment to the built environment for middle grade students living in D65 using ArcGIS.

**A2I Middle Grades Pathway Map (Individual).** Using data from the class learning spaces and opportunity mapping project, students will select a A2I area of focus and create a pathway guide targeting Evanston's 6-8th grade students.

**A2L Monthly EL3 Design Challenge (Group of 4).** Students will work to conceptualize, design, and prototype a blended learning environment embedded within EL3 platform. Projects for this term include the following: Month of Code, A2I Interactive Media Festival, Make Music Simulcast, All About Me Girls Digital Media BootCamp.

## Grading Scale

Letter grades will be given based on the following minimum percent of total points earned.

|    |        |                              |
|----|--------|------------------------------|
| A  | 93.00% | Excellent/Outstanding effort |
| A- | 90.00% | Very Good                    |
| B+ | 88.00% |                              |
| B  | 83.00% | Good                         |
| B- | 80.00% |                              |
| C+ | 78.00% |                              |
| C  | 73.00% | Satisfactory                 |
| C- | 70.00% |                              |
| D+ | 68.00% |                              |
| D  | 60.00% |                              |
| F  | 0.00%  |                              |

## CLASS SCHEDULE

| Wk   | Class        | Tuesday   | Thursday  |
|--|--------------|---|---|
| <b>Foundations of 21st Learning Ecosystems</b> |              |   |   |
| 1  | Sep 24, 2019 | <p><b>Lecture:</b></p> <ul style="list-style-type: none"> <li>• Class Overview</li> </ul> <p><b>Activity:</b></p> <ul style="list-style-type: none"> <li>• Cross the Line</li> </ul>  | <p><b>Read:</b></p> <ul style="list-style-type: none"> <li>• Designing Learning Environments</li> </ul> <p><b>Guess Lecture:</b></p> <ul style="list-style-type: none"> <li>• Kristen Perkins: Design Workshop</li> </ul> <p><b>Due:</b></p> <ul style="list-style-type: none"> <li>• 3-2-1</li> </ul>  |
| 2  | Oct 1, 2019  | <p><b>Read:</b></p> <ul style="list-style-type: none"> <li>• New Learning Environments for the 21st Century</li> </ul> <p><b>Watch:</b></p> <ul style="list-style-type: none"> <li>• Learning as a Lifestyle Video Series and Discussion</li> </ul> <p><b>Due:</b></p> <ul style="list-style-type: none"> <li>• 3-2-1</li> </ul>                                  | <p><b>Read:</b></p> <ul style="list-style-type: none"> <li>• Interest and self-sustained learning as catalysts of development: A learning ecologies perspective.</li> </ul> <p><b>Activity:</b></p> <ul style="list-style-type: none"> <li>• Analyzing our Personal Learning Ecosystems</li> </ul> <p><b>Due:</b></p> <ul style="list-style-type: none"> <li>• 3-2-1</li> </ul> |
| 3  | Oct 8, 2019  | <p><b>Read:</b></p> <ul style="list-style-type: none"> <li>• Counter-mapping the neighborhood on bicycles: Mobilizing youth to reimagine the city.</li> </ul> <p><b>Activity:</b></p> <ul style="list-style-type: none"> <li>• ArcGIS Workshop</li> </ul>   | <p><b>Guess Lecture:</b></p> <ul style="list-style-type: none"> <li>• Kirby Callam: EvanSTEM</li> </ul> <p><b>Activity:</b></p> <ul style="list-style-type: none"> <li>• EL3 Overview</li> <li>• Final Project Selection</li> </ul> <p><b>Due:</b></p> <ul style="list-style-type: none"> <li>• TechnoBiography</li> </ul>  |
| <b>Learning Pathways</b>                       |              |   |   |
| 4  | Oct 15, 2019 | <p><b>Read:</b></p> <ul style="list-style-type: none"> <li>• Freedom of Movement</li> </ul> <p><b>Lecture:</b></p> <ul style="list-style-type: none"> <li>• Analyzing spaces, tools, and activities to support Spectating and Performing</li> </ul> <p><b>Due:</b></p> <ul style="list-style-type: none"> <li>• 3-2-1</li> </ul>                                  | <p><b>Read:</b></p> <ul style="list-style-type: none"> <li>• How Learning Works (chapter 1&amp;3)</li> </ul> <p><b>Workshop:</b></p> <ul style="list-style-type: none"> <li>• Designing spaces, tools, and activities to support Spectating</li> </ul> <p><b>Due:</b></p> <ul style="list-style-type: none"> <li>• 3-2-1 Software or Experience Critique</li> </ul>             |
| 5  | Oct 22, 2019 | <p><b>Read:</b></p> <ul style="list-style-type: none"> <li>• How Learning Works (chapter 4&amp;5)</li> </ul> <p><b>Workshop:</b></p> <ul style="list-style-type: none"> <li>• Analyzing spaces, tools, and activities to support Practice</li> </ul> <p><b>Due:</b></p> <ul style="list-style-type: none"> <li>• 3-2-1 Software or Experience Critique</li> </ul> | <p><b>Workshop:</b></p> <ul style="list-style-type: none"> <li>• Designing spaces, tools, and activities to support Practice</li> </ul> <p><b>Due:</b></p> <ul style="list-style-type: none"> <li>• 3-2-1 Software or Experience Critique</li> </ul>  |
| 6  | Oct 29, 2019 | <p><b>Read:</b></p> <ul style="list-style-type: none"> <li>• How Learning Works (chapter 6&amp;7)</li> </ul> <p><b>Workshop:</b></p> <ul style="list-style-type: none"> <li>• Analyzing spaces, tools, and activities to support Leveling Up</li> </ul> <p><b>Due:</b></p> <ul style="list-style-type: none"> <li>• 3-2-1</li> </ul>                              | <p><b>Read:</b></p> <ul style="list-style-type: none"> <li>• The Design of Goal-Based Scenarios</li> </ul> <p><b>Activity:</b></p> <ul style="list-style-type: none"> <li>• Learning Ecosystem Poster Session</li> </ul> <p><b>Due:</b></p> <ul style="list-style-type: none"> <li>• 3-2-1</li> </ul>   |

| Wk   | Class        | Tuesday   | Thursday   |
|--|--------------|---|--|
| <b>Learning Environments, Experiences, and Showcases</b> |              |   |  |
| 7  | Nov 5, 2019  | <b>Workshop:</b><br>• How Might We<br><b>Activity:</b><br>• Group Project work<br><b>Due:</b><br>• 3-2-1 Project Update | <b>Activity:</b><br>• Group Work with Assigned Expert<br><b>Due:</b><br>• 3-2-1 Project Update |
| 8  | Nov 12, 2019 | <b>Activity:</b><br>• Group Project work + team 1:1's with Prof P.<br><b>Due:</b><br>• 3-2-1 Project Update             | <b>Activity:</b><br>• Group Work with Assigned Expert<br><b>Due:</b><br>• 3-2-1 Project Update |
| 9  | Nov 19, 2019 | <b>Activity:</b><br>• Group Project work + team 1:1's with Prof P.<br><b>Due:</b><br>• 3-2-1 Project Update             | <b>Activity:</b><br>• Group Work with Assigned Expert<br><b>Due:</b><br>• 3-2-1 Project Update |
| <b>Module 4: Showcasing Module</b>                       |              |   |  |
| 10   | Nov 26, 2019 | Thanksgiving  |  |
| 11   | Dec 3, 2019  | <b>Due:</b><br>• Project Presentations to Community   |  |
| 12   | Dec 9, 2019  | <b>Due:</b><br>• Final Project Writeup  |  |

## ASSIGNED READINGS

- Ambrose, S. A., Lovett, M., Bridges, M. W., DiPietro, M., & Norman, M. K. (2010). How learning works: Seven research-based principles for smart teaching.
- Barron, B. (2006). Interest and self-sustained learning as catalysts of development: A learning ecologies perspective.
- Bransford, J. D., Brown, A. L., & Cocking, R. R. (Eds.). (2000). How people learn: Brain, mind, experience, and school (Expanded ed.). Washington, D.C.: National Academy Press. Available online: [http://www.nap.edu/catalog.php?record\\_id=9853](http://www.nap.edu/catalog.php?record_id=9853)
- Brown, J.S. & Adler, R.P. (2008). New Learning Environments for the 21st Century.
- Gee, J. P. (2004). Learning by design: Games as learning machines. Interactive Educational Multimedia, 8(April 2004), 15-23.
- Ito, M., Gutiérrez, K., Livingstone, S., Penuel, B., Rhodes, J., Salen, K., Schor, J., Sefton-Green, J., & Watkins, S.C. (2013). Connected Learning: An Agenda for Research and Design. Irvine, CA: Digital Media and Learning ResearchHub.
- Pinkard, N., (2019) Freedom of Movement, Journal of Human Development
- Reeves, T. Evaluating What Really Matters in Computer-Based Education.
- Roger C. Schank, Andrew Fano, Benjamin Bell & Menachem Jona (1994) The Design of Goal-Based Scenarios, Journal of the Learning Sciences, 3:4, 305-345, DOI: [10.1207/s15327809jls0304\\_2](https://doi.org/10.1207/s15327809jls0304_2)
- Tate, W.F. (2008). Geography of Opportunity: Poverty, Place, and Educational Outcomes. Educational Researcher, 37(7), 397-411.
- Taylor, K.H. & Hall, R. (2013). Counter-mapping the neighborhood on bicycles: Mobilizing youth to reimagine the city. Technology, Knowledge, and Learning, 1-29.