

Welcome to EDUC 338X: *Innovations in Education: Designing the Teaching Experience* with SUSE, the d.school, and NewSchools Venture Fund

Course Description: Do you believe in the power of design thinking to improve k-12 education? This project-based course, a collaboration between the d.school, the School of Education, and NewSchools Venture Fund, will give students access to those who are innovating in education. Course projects will deepen students' design thinking process while expanding their understanding of the k-12 teaching landscape. Students will connect with entrepreneurs tackling some of the most pressing teaching and learning problems, learn from their experiences and explore their own areas of interest more deeply through development of a business/project opportunity with potential to carry it forward beyond the class.

EDUC 338X

Title: *Innovations in Education: Designing the Teaching Experience*

Days: TTh 10-11:50am

Room: **d.school theatre 2** (Note: new building at 416 Escondido Mall)

Units: 3-4

Grading: **Letter (ABCD/NP)**

Teaching Team: Like other d.school classes, Educ 338 takes a hybrid approach to teaching bringing expertise and experience across disciplines. Education is the arena of focus, the d.school provides the methodology to approach these challenges of teaching, while NewSchools Venture Fund will provide a connection to the field, case studies, access to leading thinkers and doers in these areas, as well as field research opportunities.

School of Education d.school faculty

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NSVF

About: This course provides a series of immersive experiences and

opportunities to learn from those in the field working to improve education with a specific focus on the teacher. We'll take a close look at some of the changes afoot across the educational landscape and their impact on the role of the teacher.

As indicated above, this class aims to explore some of the key educational disruptions gaining ground in the mainstream educational arena. Some of these disruptions include personalized and differentiated learning, a changing teaching demographic, an increase in data use, and creation of more equitable educational opportunities for all. Fueled by advances in technology, on the whole, these changes are bringing forth a more differentiated approach to teacher training and student learning resulting in more effective and tailored learning experiences for both. This class culminates with student teams developing solutions to real world problems that will ultimately improve a teacher's efficacy, efficiency and/or sustainability.

Partners: This class places a heavy emphasis on practical experience and real-world solutions (with less time covering theory). As such, we'll be partnering with entrepreneurs, institutions and funders including the following:

Aspire Public Schools
BetterLesson
EdSurge
Education Elements
Equal Opportunity Schools
Formative Teaching
GoalPost Labs
2Tor Inc.
Houghton Mifflin
Innovate Foundation
Kellogg Foundation
LearnBoost
Presence Telecare
Teach for America
The New Teacher Center

Confirmed guests: Reid Saaris, Tim Ranzetta, Jason Lange, Jacob Klein, Jim O'Neill, Matt Pasternack, Matt Bowman, Alex Grodd, Anthony Kim, Michael Horn, Thianh Lu, Julie Mikuta, Gloria Lee, Alex Hernandez

Core Values. Our goal is for you to leave this class confident in your ability to be human-centered, prototype driven, and mindful of process in everything you do, while gaining a richer understanding of education entrepreneurs and their role in the changing education ecosystem. Through diverse experiences, we want you to leave this class with a better understanding of:

1. How to design

- Designer "toolkit"
- Focus on empathy, need finding, and prototyping

2. What to design

- Understand teacher's Point of View (POV)
- Impact teacher's efficiency, effectiveness, workflow, quality/happiness

3. Why to design

- Encourage entrepreneurship/intra-preneurship
- Confidence in your own creativity and ability to make a difference!

Projects. With guidance from a content-expert advisor, you will be working in teams and will "go deep" in an area of chosen interest to develop an entrepreneurial solution that addresses a key pain point for teachers (e.g. mentoring, managing workload, sharing curriculum, use of classroom as learning space, integrating gaming into curriculum). You will use a design approach to more deeply understand the problem, develop a prototype for a solution, iterate on it, and finally present the idea to a panel of educational advisors at the conclusion of the class.

Design is a team sport. Projects throughout the quarter will require tight coordination and collaboration with teammates. You should expect to spend 4-6 hours per week on project work outside of class and lab time - although it will be lumpy with some weeks light and others more intense. Most of these work sessions will be with

the teams. An overview of the calendar is below, including project deliverable dates to help plan team collaboration and personal commitments over the next 10 weeks.

Grading. Failure is a powerful teacher and a critical part of the design process. Throughout the course students are encouraged to stretch themselves by learning new skills, trying out new roles on their team and taking creative risks. The class is a safe environment for learning design thinking. Throughout the quarter students and teams will be given feedback on both their underlying design process and their project deliverables. Course grading will be based on both the **journey** and the **destination**. Students who exhibit thorough exploration of the design process, contribute strongly to the class, provide value as a team player, and commit to personal growth as a design thinker, can expect to do very well.

Specifically, students will be evaluated on the basis of two general categories: **Class Criteria** (20%) and **Design Project Criteria** (80%).

The *Class Criteria* include:

- *engagement* includes things like class preparedness, working with mentors and advisors, attentiveness, willingness to take risks
- *attendance* means showing up every class and if you need to miss, please email one of the teachers

It is important to note that this is a fast paced course and as such students are required to arrive on time to class; lateness is unacceptable.

The *Design Project Criteria* includes:

- individual and team contributions toward innovative project work
- rubric grading which is designed to demonstrate progress in design thinking; we'll use this rubric to gauge your progress - we'll be discussing the rubric week 2

The teaching team designs this class in a human-centered, prototype-driven, iterative way. After every class session, students and the teaching team are invited to debrief the experience. As the group learns what's working and what's not working, they will iterate the design of the class along the way. This means more work for the teaching team, but a better student experience.

D.school. People you should know at the d.school:

d.shrink: Julian Gorodsky gorodsky@stanford.edu
Community: Charlotte Burgess Auburn cbauburn@stanford.edu
IT: Bruce Boyd bboyd@stanford.edu
Admin: Erika Basu ebasu@stanford.edu

Course Schedule:

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Read before for DP 1:

Collaboration:

- [How Nations Invest in Teachers](#)
- [MetLife Survey of the American Teacher: Collaborating for Student Success](#)

OR Family Involvement:

- [Partnering with Families and Communities](#)
- [Why some parents don't come to school](#)

Week 1:

Launch of first Design Challenge :: Gaining empathy and problem definition

3/30 Wednesday

Teacher "Spring Break" event 5:00 - 7:00 p.m.

3/31 Thursday

Introduction to course, mini-lecture on gaining empathy and problem definition

Read before:

- [Schoolteacher](#) Chapter 1: The Hand of History and Chapter 5: Perspectives on Purpose
- [Teacher Quality and Student Achievement](#)

Guest: Gloria Lee, COO of NSVF

Week 2:

State of the Teacher :: Prototyping and Testing of Ideas

4/5 Tuesday

Mini-lecture - 10 trends for the teaching profession

Read before: New technologies' impact on teaching

- [6 Ways Social Media is Changing Education](#)
- [Salman Kahn's TED talk](#)
- [National Education Technology Plan](#)

4/7 Thursday

Read before:

- Schoolteacher: pp. 61-67 for in-class activity
- [Disrupting Class](#) Chapters 1, 2 and 5 and the [new chapter on student motivation](#)

Guests: Jacob Klein, Motion Math
Karim Logue, Mathalicious
tbd

Week 3:

Storytelling and demonstrations of ideas :: Feedback :: Viability

4/12 Tuesday

Read before:

- Schoolteacher Chapter 7: The Logic of Teacher Sentiments
- [What teachers make](#)
- Andrew Zucker's [Commentary on Disrupting Class](#)

Guests: Matt Pasternack, GoalPost
Thianh Lu, LearnBoost

4/14 Thursday

DP1 Presentations

Read before:

- [Most likely to succeed](#) (Gladwell)
- [When smart people get it sooo wrong](#) (Carnoy)

Guest: Julie Mikuta, Partner at NewSchools Venture Fund

4/16 Saturday

EdTech Mixer: 5-7pm at the d.school

Sign up here: <http://edtechmixer.eventbrite.com> for an opportunity to hear from 3 education startup programs and meet others interested in entrepreneurial opportunities in education

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Week 4:

Launch of Design Challenge 2 :: Empathy and problem definition ::

Project Idea Book

Readings: from here on, readings will depend on the choice of design project. Stay tuned!

Guests: Michael Horn, co-author of Disrupting Class
Anthony Kim, founder/CEO of Education Elements
tbc

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Week 5:

Team formation :: Change is possible :: Prototyping and testing with purpose

Guests: Jason Lange, Formative Teaching
Reid Saaris, Equal Opportunity Schools
Alasdair Trotter, Guaranteach

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Week 6:

Field reports :: Next Steps

Guests: Alex Hernandez, Charter School Growth Fund

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Week 7:

Rapid Business planning :: Education Entrepreneurship

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Week 8:

Storytelling and pitching session

5/18 Wednesday: NewSchools Venture Fund Summit at Burlingame Hyatt

5/19 Thursday

Guest: Alex Grodd, BetterLesson

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Week 9:

Dress Rehearsals :: Final Presentations

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Week 10:

Reflect :: Debrief :: Celebrate

5/31 Tuesday

Feedback from project partners.

Debrief of projects, process, and class as whole.

Articles/Books we love

Additional readings will be provided based on the design challenges chosen.

Innovation

[*The Art of Innovation*](#) by Tom Kelley

The Innovator's Solution by Clayton Christensen

Weird Ideas that Work by Robert Sutton

Innovation & Entrepreneurship by Peter Drucker

Design Process

Aesthetics of the Japanese Lunchbox by Kenji Ekuan

Zen and the Art of Motorcycle Maintenance by Robert Pirsig

Cradle to Cradle by William McDonough

Emotional Design by Donald A. Norman

How Buildings Learn by Stewart Brand

Understanding Comics by Scott McCloud

A Whole New Mind by Daniel Pink

Creativity

The Universal Traveler by Don Koberg & Jim Bagnall

Conceptual Blockbusting by James L. Adams

Creativity by Mihaly Csikszentmihalyi

Orbiting the Giant Hairball by Gordon MacKenzie

Rapid Viz, by Kurt Hanks & Larry Belliston

Negotiation, Getting Past No by William Ury

Marketing

Crossing the Chasm by Geoffrey A. Moore

Purple Cow by Seth Godin

Marketing High Technology by William H. Davidow

Pattern Recognition by William Gibson

The Tipping Point by Malcolm Gladwell

A Brand New World by Scott Bedbury

Influence by Robert Cialdini

Business, Finance and Entrepreneurship

How to Read a Financial Report by John A. Tracy

Good Business by Mihaly Csikszentmihalyi

The Art of the Start by Guy Kawasaki

Startup: A Silicon Valley Adventure by Jerry Kaplan

Personal Brand Communication

The Brand You 50 by Tom Peters

Brag: The Art of Tooting Your Own Horn Without Blowing It by Peggy Klaus

Learned Optimism by Martin Seligman

Zen and the Art of Making a Living by Laurence Boldt

www.presentationzen.com by Garr Reynolds