

PROJECT ZERO

HGSE Fall 2016 Courses Taught by Project Zero Faculty

EDU-H614: Understanding Truth, Beauty, and Goodness: The Core of a Good Education

Howard Gardner

Fall 2016 course, four credits; Monday, 4:00 p.m. - 7:00 p.m.

(New course.) A justifiable goal for education, broadly construed, is to increase appreciation, understanding, and action with reference to three traditional values: what is true, what is beautiful, and what is good (these are not necessarily the same). During this course, we consider traditional definitions of these values and the ways in which these values may be reframed in light of the post-modern philosophical critique and the ubiquitous digital media. We also consider in turn educational approaches to these values for three cohorts: young children plus youth in middle and secondary school; adolescents and adults in higher education; and lifelong education. Students will each design curricula and/ or pedagogy for one of these cohorts. The course critiques and extends arguments in the book *Truth, Beauty, and Goodness Reframed: Education in the Era of Truthiness and Twitter*.

*Permission of instructor required. Enrollment is limited to 15. Interested students will be required to submit a statement of interest to the instructor after attending the course shopping session. To determine whether the course is likely to be interesting and useful, students are advised to peruse the book *Truth, Beauty, and Goodness Reframed: Education in the Era of Truthiness and Twitter (paperback edition)*.*

EDU-S300: The Arts in Education: Learning In and Through the Arts

Steven Seidel

Fall 2016 course, four credits; Friday, 8:30 a.m. - 12:00 p.m. Required one-hour weekly session

Possible and appropriate roles for the arts in education are widely debated, and they should be. This course will explore the many roles for the arts in the educational experiences of children and adults, both in and out of schools. The course will look at these from various perspectives but will primarily focus on basic questions about the nature of learning and teaching in and through the arts. Its fundamental questions: What are our purposes as artists and educators working at the intersection of the arts and learning? What can be done to improve the quality of arts learning opportunities for children, youth, and adults? What must one understand about the nature of learning in and through the arts to contribute to this improvement? How do settings and cultural contexts influence the nature and quality of arts learning experiences? What are the

habits of mind of effective arts educators? As artists and/or educators, what are the moral dimensions of such work and what might it mean to accept the responsibility of also being citizens in a democracy? Students will explore these questions and others through group study of readings and weekly workshops in which they experiment with approaches to arts teaching in a lab setting, analyzing experiences as learners and teachers and working toward the articulation of theories of arts learning. Course requirements include full participation in all course-related activities, including class sessions, section meetings, readings, group projects, and reflective and analytic writing assignments.

Permission of instructor required. Required for Ed.M. students in the Arts in Education Program. Others interested in both S-300 and S-301 may enroll with permission. Enrollment procedure will be posted on the course website.

T-211J: Museum and Object-Based Learning

Christina Smiraglia

Fall 2016 course, two credits; Thursday, 1:00 p.m. -4:00 p.m.

(New course.) Objects embody natural processes as well as human activity and can connect people, places, and ideas. This course invites students to begin examining the role of objects in learning and teaching, especially, although not exclusively, in museum contexts. Students will explore how the close examination of physical things can be the starting point for engaging learners in sophisticated and varied inquiry. Through readings, discussions, group work, and object experiences, students will investigate questions such as: What is object-based learning? What frameworks have been used to understand the learning that happens through objects and in museums? How are object-based learning experiences designed? Students will engage in object-based activities in the classroom and in museums to gain a first-hand understanding of these forms of learning. The main project in the course requires students to work in small groups to design and implement an object-based learning experience for an audience of the group's choosing. This is an introductory survey designed for students with an interest in thinking creatively about teaching and learning using physical objects in general as well as those interested in museum contexts in particular.

Permission of instructor required. Enrollment limited to 20. See course website for application procedures. There are no prerequisites. Offered only as Satisfactory/No Credit.

EDU: T402: Group Learning

Daniel Wilson

Fall 2016 course, four credits; Friday, 1:30 p.m. - 4:30 p.m.

Learning in teams is an essential component of school life for students, teachers and administrators. One needs to look no farther than the current emphasis on cooperative

learning, teacher teams and collaborative leadership models. However socially appealing these labels seem, the unfortunate fact remains that groups are often a frustrating and ineffective learning experience for many of their members. Very few groups do well in sharing ideas, making decisions and building new knowledge. Even fewer are able to break from routine behaviors and craft new practices. Why is this and how can those who lead learning environments create the conditions to better support group learning? This course will familiarize participants with key research findings on the nature of team/group learning and offers several occasions for participants to apply the concepts in practice by designing and observing group learning experiences. The course will examine and compare seminal lessons culled from the classroom literature (e.g., research on cooperative learning, peer-to-peer teaching, etc.), teacher and leader development (research on team teaching, communities of practice, etc.), and the wider field of team learning and performance (e.g., concepts such as psychological safety, conflict resolution in groups, social facilitation, etc.). Each week will focus on written and video examples of students learning in groups, teachers collaborating in teams, or school administrators learning together. To illuminate themes of group learning, other contexts will also be examined such as hospital teams, military units, orchestras, and athletic teams. Participants will apply the course concepts by writing two analytic papers that document and closely critique group learning in action. In sum, students will build an awareness of key insights so they can better diagnosis and support team learning in a variety of contexts.

Permission of instructor required. Enrollment is limited to 35. Ed.M. students in the Learning and Teaching Program given preference. Students from other programs and schools are welcome. Enrollment procedure will be posted on the course website.

EDU-T600: Thinking and Learning Today and Tomorrow: Project Zero Perspectives

Carrie James and Edward Peter Clapp

Fall 2016 course, four credits; Tuesday 8:30 a.m. - 11:30 a.m.

What is understanding and how does it develop? What do thinking and learning look like? What is worth learning today and tomorrow? Where, how, for whom, and under what conditions do thinking and learning thrive? This course will explore these questions and more by drawing on over four decades of work from Project Zero (PZ), a research center at HGSE. Since its inception in 1967 as a center for research on learning in the arts, PZ's work has extended in new directions while maintaining a focus on thinking, learning, and deep understanding. Today, PZ's diverse portfolio includes research and pedagogical frameworks related to the following themes: multiple intelligences, teaching for understanding, making learning visible, visible thinking, creating cultures of thinking, design and maker-centered learning, thinking in the arts, group learning, cognition in science, interdisciplinary teaching and learning, ethical issues and other dimensions of good work, and the implications of globalization and digital life for learning and learners. With support from a teaching team of PZ researchers, students will actively engage in activities, discussion, and other core

learning experiences that emphasize select PZ perspectives, including a dispositional view of thinking, a performance view of understanding, the role of documentation in learning, and the importance of reflective practice. Students will be encouraged to view these perspectives on thinking and learning through the lens of specific populations and the conditions that effect the learning experiences of those individuals. In this way, students will be asked to foreground issues of access, equity, and inclusion in all aspects of their work with the course. Ultimately, students will demonstrate their understanding of course content through (1) a succession of mini-projects in which they put PZ frameworks into practice in diverse learning contexts in real world settings; and (2) a synthesis paper in which they reflect on their learning experiences throughout the course, including the mini-projects, course readings, guest presentations, in-class activities, and their personal lenses on learning.

GOV-1060: Ancient and Medieval Political Philosophy

Danielle Allen

Fall 2016 course, four credits; Monday and Wednesday, 9:00 a.m.--- 10:00 a.m.

Classical and medieval political philosophy, from Plato to Thomas Aquinas, with special attention to the question of natural right.

Winter 2017 Modules Taught by Project Zero Faculty

EDU-HT113: Research Practicum for Microschools: Developing Innovative Schools Based on Neuroscience & Cognitive Science Principles

Tina Grotzer

Winter 2017 course, four credits. Days and times to be arranged.

(New course.) This course invites students to rethink school design based upon research findings in cognitive science and neuroscience. It focuses on the essential question, “What might schools look like if the key decisions about their design were based upon the best of what is known from research on learning and how our minds work?” It considers how principles from research apply to overall school design, conceptions of the learner, overarching philosophies of learning, logistical structures for learning and the design of physical spaces for learning. A significant portion of time will be spent “in the field” looking at schools and talking to educators, architects, and school designers. Design principles will be introduced to help us to think outside the box. Readings draw from cognitive science, neuroscience, design thinking, school philosophies (e.g., progressive movement, Reggio Emilia, Expeditionary Learning), instructional design philosophies (e.g., backward design, living curriculum), and the history of innovation in school design. Concepts central to the course include the principles of perception and attention, self-regulated learning, backward design, “living” curriculum, cognitive load, the power of agency, etc. Over the course of January term, students will develop a vision for a microschool and a rationale for its design. The course pedagogy centers on active processing and utilizes the principles of instruction taught in the course. It is project-based learning (involving developing a project for term) with a strong focus on transfer and application. Activities and questions are framed to encourage active, mindful processing and construction of knowledge as a group as we rethink the possibilities of education with the rich resources afforded by the research. Permission of instructor required.

Enrollment is limited to 15 students due to the field-based nature of the course.

Enrollment procedure will be posted on the course website.

EDU-T211P: Interdisciplinary Education: Preparing Students for our Contemporary World

Veronica Boix-Mansilla

Winter 2017 course, two credits. Days and times to be arranged.

Quality interdisciplinary education invites students to integrate concepts, theories, methods, and tools from two or more disciplines to deepen their understanding of a complex topic (e.g. how cities grow, why the climate is changing, how to make new media art). In so doing, interdisciplinary instruction enlists students' multiple capabilities (artistic, social, analytic) and prepares them to solve problems, create products, or ask questions in ways that go beyond single disciplinary views. This module examines the growing body of research, theories, and model practices in interdisciplinary instruction to address four fundamental questions: (1) What is interdisciplinary understanding, and why does it matter to educators today? (2) What constitutes quality interdisciplinary instruction, and how can it be assessed? (3) How do students learn to work across disciplines, and how can their learning be assessed? (4) What forms of teacher professional development and organizational cultures support or hinder quality interdisciplinary teaching? The course prepares educators to design, assess, and support quality interdisciplinary instruction and understand the cognitive social and pedagogical challenges associated with interdisciplinary teaching and learning. It is relevant to professionals interested in teaching, curriculum development, teacher education, academic administration, student advisory, instructional materials design, museum education, media education, program evaluation and educational research. Most examples for analysis will pertain to secondary education, but special sessions will focus on elementary and higher education respectively. Linking theory and practice, we will analyze examples of expert work (e.g. An Inconvenient Truth), instructional designs (e.g. a unit on globalization, a website on climate change) and student work (essays, artwork, videos, monuments). Students will focus on a topic of their choice to design interdisciplinary teaching interventions.

Public Lecture Series

Howard Gardner

Winter, 2017. Times to be arranged

January 4, 2017: "Intelligences"

January 9, 2017: "Creativities"

January 11, 2017: "Leadership in our Time"

HGSE Spring 2017 Courses Taught by Project Zero Faculty

EDU-H610P: Under Pressure: Cheating, Ethics, and Achievement Culture

Alexis Redding

Spring 2017 course, four credits; Wednesday, 4:00 p.m.- 7:00 p.m.

(New course.) In this module, we explore cheating against the backdrop of the unprecedented level of achievement pressure in K--16 education. Rather than simply pathologizing cheating as a negative behavioral outcome, we examine it in an historical, cultural, and developmental context. After co-constructing a model of what goes on in the minds of students as they navigate ethical dilemmas, we apply our knowledge to recent high-profile cases of cheating at three levels—high school, college admissions, and college. In the process, we consider the perspectives of multiple stakeholders, from parents and teachers to administrators and professional organizations. This multi-dimensional approach will allow us to think about how to effectively scaffold the moral growth of students who are living and learning in high-stakes educational environments. While unpacking this complex behavior, we also think critically about what it means to be informed readers of educational research in both scholarly publications and the media. We examine how research on sensitive topics is conducted and what this means for our understanding of these data. Together, we also explore cultural assumptions that may influence perceptions about students who cheat and the policies we implement to address academic dishonesty.

S-301: The Arts in Education: Research, Policy, Advocacy, Activism, and Practice

Steven Seidel

Spring 2016 course, four credits; Friday, 8:30 a.m. - 12:00 p.m. Required one-hour weekly section TBD.

This course is a continuation of S-300 and extends its inquiry from a focus on the nature of learning in and through the arts to an investigation of the relationships between research, policy, advocacy, activism, and practice. The findings of research, the creation of policies, and the efforts and arguments of advocates and activists are each a context that informs the practice of arts education—the actual teaching and learning that is at the core of the work in this sector—just as practice informs and influences research, policy, and advocacy. At the same time, each of those contexts informs and influences each other. Through a series of “mini cases,” conversations with researchers and policymakers, and close examination of advocacy documents, students will study how the arts—through the efforts of researchers, advocates, policymakers, and teachers—can become both more accessible and higher in quality. Consideration of the positive and negative aspects of the marginality of the arts in education will ground this study. Further, students will examine both how the arts sector of the education field is

evolving over time and how one can play a role in the further development of that sector as advocates, activists, researchers, policymakers, and teachers. Course requirements include full participation in all activities of the class sessions, assigned readings, and reflective and analytic writing assignments, including a final project

Permission of instructor required. Required for Ed.M. students in the Arts in Education Program. Others interested in both S-300 and S-301 may enroll with permission. Enrollment procedure will be posted on the course website.

EDU-S316: Art, Design, and Learning in Public Spaces

Steve Seidel

Spring 2017 course, four credits; Thursday, 1:00 p.m. --- 4:00 p.m.

Increasingly, contemporary artists, designers, and educators have been exploring the complex relationships between four 'publics'—public space, public art, public learning, and public life. These creative practitioners study and experiment with the potential for engaged citizenship, lifelong learning, and social change through their work, drawing attention to the types and qualities of learning that can take place when interacting with art in public settings. Currently, this realm of work takes place in a space comprised of overlapping fields—contemporary art, public pedagogy, art education, community organizing, and more—working together (and in isolation) to push the boundaries of what art in public spaces can and should do. Yet, everyone engaged in this work encounters at least two fundamental challenges of learning: (1) capturing the attention of diverse individuals, and (2) maximizing the benefits of their proximity to each other and the work/s of art to provoke curiosity, interaction, reflection, and, sometimes, action—in short, to galvanize learning. In this course, we will explore this complex realm, investigating the planning, implementation, and assessment of these types of public art projects. We will interact with people engaged in this work and consider how it is understood within and across the fields of education, art, and design (among others), and what these fields can do to inform one another. Through readings, public art experiences, conversations with artists and those responsible for the sites of public art, we will explore what it means to design and analyze arts learning in public, as well as challenge existing parameters of that work. Throughout the semester, students will engage in a public art/learning design project, working individually or in small groups to design a proposal for a work of public art/learning for the HGSE campus or Harvard's Science Center Plaza. At the end of the term, these proposals will be presented to representatives of the communities that use and are responsible for these spaces both for critique and consideration for further development and possible implementation.

Permission of instructor required.

EDU-T139: Investigating Learning and Teaching Through Collaborative Examination of Student and Teacher Work

Tina Blythe

Spring 2017 course, four credits; Friday, 9:15 a.m. – 11:30 a.m.

The most powerful source of information about teaching and learning in a school is the student and teacher work that occurs in classrooms, day in and day out. This course is about how to use that work to better understand learners and their learning, and teachers and their teaching, and how to support the collegial collaboration that leads to better learning for both learners and educators in a school. The course will focus on three specific tools: protocols (or structures for guiding reflection and discussion), documentation (ways of capturing student and teacher work so that it can be examined and discussed), and collaborative inquiry (working with colleagues to identify important questions about teaching and learning and then pursue those questions through the close examination of student and teacher work). All these tools, while developed primarily for use among teachers and administrators in a school, have proven useful with students in the classroom. Students will consider the important challenges to doing this work in classrooms and schools: How does one learn to see beyond one's own assumptions and expectations to what students are in fact learning? How does one understand and manage tensions that often arise among colleagues when discussing issues as complex as learning and teaching? How do schools make space in already crowded days for the reflections and conversations about student and teacher work? And how might one serve as an effective facilitator for examining student and teacher work with one's colleagues? This seminar requires active participation as well as collaboration with classmates.

Must be taken on a Satisfactory/No Credit basis.

EDU-T543B: Applying Cognitive Science to Learning and Teaching

Tina Grotzer

Spring 2016 course, four credits; Friday, 1:00 p.m. – 4:00 p.m. Required 1-hour weekly section TBD.

(New Course.) This course explores specific principles from cognitive science that have important implications for instructional approach and curriculum design. It considers how recent research findings on topics such as transfer, analogy, metacognition, conceptual change, explanation, mental models, novice expert shifts, causal reasoning, and the nature of beliefs about intelligence interact with instructional design choices. It investigates current thinking on how findings from cognitive development research impact teaching and learning. Discourse ranges from learning theory to grounded classroom examples, focusing on examples that elucidate both how theory and research inform practice and how practice informs research questions and broader theory. There



will be weekly readings. Class format will include activities, discussion, and brief lectures. The course has a project based component. Students will complete a term project, typically the development of a curriculum topic, the choice of which is based on individual interest. Weekly workshop style sections will support students in applying class concepts to their project topic.

Permission of instructor required. Enrollment limited to 30.