

CD 143 – Teaching Robotics in an Urban School

Spring, 2013

Tuesday 12:30-3pm

Location:

Curriculum Lab at the Eliot-Pearson Department of Child Development

Prof. Marina Bers

TA Amanda Sullivan

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COURSE DESCRIPTION

This service learning course provides a unique experience to work in urban school settings teaching robotics in PreK to 2nd grade.

Students will learn about robotics and pedagogies for teaching in early childhood classrooms and for assessing mastery of knowledge and skills in the area of technology and engineering.

COURSE REQUIREMENTS

Readings and class participation (On-going--20% of grade): All students are expected to do the readings, and to participate in discussions of the readings in class. Readings are linked from the syllabus.

Performance at the school (On-going 30%): Students are expected to exhibit professionalism, as discussed in class, while working at the school

Attendance (On-going 10 %): Students are expected to attend all work that happens at the school

Video (Due April 23, 50% of grade): Students will work in pairs to create a short video to show about the school experience. Prof. Bers will e-mail guidelines as the time approaches.

January 22: Introduction and Course Overview

Readings for Class	<p>Bers, M. & Horn, M. (2010). Tangible programming in early childhood: Revisiting developmental assumptions through new technologies. In I. R. Berson & M. J. Berson (Eds), <i>High-tech tots: Childhood in a digital world</i>. Greenwich, CT: Information Age Publishing.</p> <p>Bers, M (2011) The TangibleK Robotics Program: Applied Computational Thinking for Young Children <i>Early Childhood Research & Practice</i> (Volume 12, No. 2).</p> <p>Kazakoff, E., & Bers, M. (2012). Programming in a robotics context in the kindergarten classroom: The impact on sequencing skills. <i>Journal of Educational Multimedia and Hypermedia</i>, 21(4), 371-391.</p>
Design Studio	Students will explore tangible programming with CHERP

January 29: Dancing robots /assessments

February 5: Classroom visit I

February 12: Classroom visit II

February 19: Video making I (school vacation)

February 26: Classroom visit III

March 5: Classroom visit IV

March 12: Classroom visit V

March 19: No class. Spring break

March 26: Debriefing

April 2: Classroom visit VI (interviews)

April 9: Video making II

April 16 : Analysis of assessments (school vacation)

April 23: Final presentations