CISC-357 Field Experience in Teaching Computing Syllabus (Spring 2017)

Instructors

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Course Description

CIS, math education and education students will collaborate giving lessons, helping with lessons, helping with labs, and planning labs and lessons with teachers. Alternates meetings on campus and in the field. Students must have taken at least one CISC or EDUC course to enroll.

Learning Objectives

This is a Field Experience course. Your primary learning will take place in the field, working with real teachers and students and their CS objectives. The time we spend in class will be in service of the field experience, and the learning objectives below are achieved in the process of your discovery, lesson planning, and delivery.

At the end of this course, the students should:

- In CS curriculum
 - be aware of existing curriculum for teaching computer science for K-12 including AP:CSP and ECS
 - be able to explain core ideas in each of the 7 CS principles areas
 - have functional skills in using software tools to express/model K-8 CS problem solving skills
- In teaching
 - be knowledgeable of education standards such as common core and how CS curriculum ties into these standards
 - o be comfortable observing and evaluating teaching of CS lessons
 - o be comfortable assisting a lead teacher in execution of a CS lesson plan
 - o be comfortable developing, planning, and assessing a CS lesson plan
 - o gain experience in a lead role in execution of a CS lesson plan
 - o be able to collate a set of lesson plans to form a CS module
- In communication
 - o collaborate effectively with a team of education specialists
 - o be proficient at presenting the argument for CS education in K-12
 - o be proficient at reflecting on teaching, planning, and educational research
 - o gain experience in public speaking with student and teacher audiences

Course Materials

There is no required textbook for this course. However, there will be many journal articles and reports assigned as readings this semester. Electronic copies of these readings will be made available on the (course blackboard) or through the (course blackboard) readings tab using links to online resources.

(Course blackboard) link:

Requirements and Assessment

Your grade will be based on the quality of your contribution in the following areas:

- 20% Laboratory assignments
- 30% Field work participation
- 10% Mock teaching, presentations, and leading activities in class
- 10% Journal of your reflection on your learning, readings, and field experiences
- 10% Portfolio related to field work lesson plans, observations, created resources for teachers
- 10% In-class participation
- 10% Final Essay

Class attendance is mandatory. All of these criteria will be taken into account by the instructors in assigning each student's individual grade. We reserve the right to adjust the syllabus during the semester, and we will give you notice in class if we do.

Academic Integrity

In a course of this nature there is a lot of collaborative work. However, collaboration does not include quizzes, journal entries, or assignments unless we specifically write it on the instructions. If you do not adhere to these standards and those expressed at the following website (where applicable), then we will follow University policy as described at link.

**Important course platforms:

Sakai (https://sakai.udel.edu/portal):

 Submitting your own assignments, including weekly reflection, lab assignments and so forth; Downloading helpful resources; Viewing important course information and notifications.

Google Drive (See link in Sakai "Wiki"):

• Group Collaborative work; Sharing individual/ group resources; Viewing your field placement detailed information and updates.

Database (http://partner4cs.cis.udel.edu:8080/assets/index.html):

 Uploading your group lesson plan material. (Each week, ONE of your group member will be in charge of uploading your group lesson plans/ activity materials to the course database.)