

# CISC-357 Field Experience in Teaching Computing

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.

## General Course Information

### Instructors:

Dr. James Atlas jatlas@udel.edu	Dr. Terry Harvey harvey@cis.udel.edu	Dr. Chrystalla Mouza cmouza@udel.edu	Dr. Lori Pollock pollock@cis.udel.edu
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## Learning Objectives

At the end of this course, the students should:

- in CS education
  - be aware of challenges/strategies in the CS10K project
  - be knowledgeable of models and approaches to integrating computer science at national, state, district, and classroom scale
  - be knowledgeable of role and impact of assessment in education
  - appreciate the history of CS in constructive learning approaches
- 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
  - be comfortable observing and evaluating teaching of CS lessons
  - be comfortable assisting a lead teacher in execution of a CS lesson plan
  - be comfortable developing, planning, and assessing a CS lesson plan
  - gain experience in a lead role in execution of a CS lesson plan
  - be able to collate a set of lesson plans to form a CS module
- in communication
  - collaborate effectively with a team of education specialists

- be proficient at presenting the argument for CS education in K-12
- be proficient at reflecting on teaching, planning, and educational research
- 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 Sakai or through the Sakai readings tab using links to online resources.

<http://sakai.udel.edu/>

## **Requirements and Assessment**

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

- 30% Journal of your reflection on your learning, readings, and field experiences
- 20% Portfolio related to field work
- 20% In class participation
- 20% Mock teaching, presentations, and leading activities
- 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 <http://www.udel.edu/studentconduct/ai.html>