

CPS 291

Using Technology in Science Education

Summer 2008

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Office Hours: By appointment
Credits: 3 credits
Time/Place: Mon/Weds. 5:00-8:00 p.m. @AAAS Cabot Lab

Course Description:

To introduce students to the strategies, resources, tools and organizational concepts for using technology to facilitate classroom learning and school administrative functions. Objectives include:

1. Review research on technology effectiveness, rationales and concerns for using technology, and best practices in integrating technology in the educational setting.
2. Explore effective and efficient use of productivity tools (Word/Excel/PPT)
3. Explore the general categories of educational technology software resources: instructional software, software tool, multimedia, hypermedia, distance learning, and virtual reality environment.
4. Explore DCPS data in developing a framework for establishing curricular priorities.
5. Utilize AAAS, state and national content and technology standards in designing technology-enhanced instruction and school technology plans.
6. Utilize a backward design framework to design technology-enhanced instruction, which incorporate state and national content and technology standards.
7. Explore effective strategies for accessing and using technology resources (Web Quests, e-portfolios, Treasure Hunts, Scavenger hunts and various software) to facilitate inquiry-oriented activities in the classroom.
8. Evaluate software applications for enhancing instruction and school administration.
9. Evaluate the pedagogical potential of multimedia sources.
10. Review and discuss assistive technology options and resources for students with special needs.
11. Review and discuss technology-enhanced options and materials for culturally diverse populations.
12. Review and discuss equity, ethical and legal issues in using technology in schools.
13. Explore cyberethics, cybersafety and Cybersecurity strategies and activities for classroom use

Throughout the course, a hands-on, learner-centered approach will enhance student ability to explore and contribute to best practices in the use AND the infusion of technology to enhance student learning and motivation to learn.

5/12 Session 1
5/14 Session 2
5/19 Session 3
5/21 Session 4
5/26 No Class—Memorial Day
5/28 Session 5
6/2 Session 6 Meet online TappedIn
6/4 Session 7
6/9 Session 8
6/11 Session 9
6/16 Session 10
6/18 Session 11
6/23 Session 12 (Last Class)

Grading / Evaluation

1. Class participation, assignments & activities (30%)
2. Paper/Project 1 (20%)
3. Paper/Project 1 (20%)
4. Final Product (30%)