

STUDENT COURSE SYLLABUS

SCED 420: Teaching Methods in Science Fall, 2005 3 semester hours



Prerequisites: ED 262

Instructor: Dr. Murat Kahveci, Office YD 607

Meeting Time: M: 10 a.m.-12 p.m. & F: 3-4 p.m.

Office Hours: Mondays, 12-1:30 p.m. and by appointment anytime

Daytime Phone: 359-7274

e-mail: murat.kahveci@boun.edu.tr

Course Website

<http://mkahveci.com>

Please note that this is a hybrid class, part situated at the university and the course website. Students are required to log into the website after each class to gather assignments and submission procedures. It is also helpful in this class to check your email account on a regular basis. You will need to register yourself for this class with an active email address, preferably your boun address. Thus, **this syllabus is subject to change.**

Course Overview

SCED 420 is meant to provide students with theoretical and conceptual approaches to teaching and learning process. The scope of the class includes teaching methods, strategies, techniques and principles specific to the area of science education.

Course Goals

The focus of the course will be:

- a. To obtain the theoretical background on the basic assumptions, concepts, and principles of each learning theory
- b. To establish the possible implications of each theory for instructional settings,
- c. To discuss your own learning theory and compare it with the learning theories,
- d. To revise and critique your own theory at the end of the class.

Course Expectations and Assignments

This is not a lecture class and information cannot be simply obtained by “getting the notes” from a classmate. You are to read the assignments that are posted to the class web site before coming to class and be ready for discussion. Therefore, attendance is expected and you are to be professional in your class participation. Professionalism includes, but is not limited to, such things as excellence in class assignments, constructive class participation, being a positive contributor to group work, taking advantage of opportunities to broaden personal knowledge and skills, and going beyond the minimum in all your work and interactions.

There are three different kinds of required products in this course.

Short Papers: Every Monday, you are to submit a short paper¹ containing your thoughts of the topic which will be posted to the course web site weekly. As part of this assignment, you will be reading and reflecting one of your classmates' writing for the following week. Your reflections will be anonymous for the both sides and the scoring criteria will be posted to the web site. Be prepared for weekly class discussions on **what you've learnt** in this activity.

Personal Learning Theory: At the beginning of the course, you will turn in a draft of a personal learning theory. You will also read and write a reflection to one of your classmates' learning theories, which will be anonymous for both sides. At the end of the course, after reading/discussing each of the learning theories, you will submit a revised draft of your personal learning theory. You will give a short presentation of your personal learning theory near the end of the semester.

Final Project: Details will be forthcoming. This final writing product will be based on an in-class activity and will require the application of all the learning theories previously covered.

Required Texts

- Baker, D.R. & Piburn, M.D. (1997). *Constructing Science in Middle and Secondary School Science Classrooms*. Needham Heights, MA: Allyn & Bacon.
- Driscoll, M.P. (2000). *Psychology of Learning for Instruction*. Needham Heights, MA: Allyn & Bacon. (Readings will be copied and provided as needed).

Participation & Professionalism

Class sessions are predominantly interactive with a heavy emphasis upon collaborative efforts. As a consequence, in-class activities for which points are assigned cannot be "made up" outside of class.

Participation- Active participation includes, but is not limited to, attending to seminar/presentation content, communicating and offering suggestions, feedback and/or analysis during discussions. Obviously, if you do not attend class, you cannot participate. For those students who rely upon external incentives to accomplish the participation goals, the following policy is in effect. For the student missing more than 45 minutes of a class, 2% points will be deducted from the total grade for each occurrence. Habitually coming to class more than 10 minutes late will result in a 1% penalty for each occurrence. Missing class will result in a 5 percentage points deducted from the total, but missing more than three class sessions will require that you meet with me to discussed continued enrollment in the class.

Professionalism- A specific, though not inclusive, list of behaviors that addresses professionalism includes: completing assignments in a timely fashion, displaying evolving attitudes toward teaching and learning, developing assignments that are of high quality, demonstrating and openness to suggestions, seeking advice when needed, and sharing ideas with others.

Assessment of Work

When completing written assignments, remember that your audience will be colleagues and the instructor from the course. Written work should demonstrate your interests, experiences from your teaching, and ideas from current educational literature. Although you have considerable freedom in your presentation choices, your writing should always be reflective and

¹ Short paper should be 2-3 pages long. Obviously, margins and font size would have an affect on the length. Thus, you should use the following format in your word file:

- Font: Times New Roman,
- Font size: 10 pt,
- Margin: 1" spaces from all sides.

professional. Reflective and professional writing should include an objective and a constructive discussion of the topic. Try to avoid simply listing events and experiences. That is, attend to the degree to which you are pushing your thinking. By moving beyond simple description of your experiences, your interpretations and attempts to understand issues will likely reach beyond surface discussions.

Written Assignment Performance Standards

Grade Weights for all written assignments are determined using the following criteria:

70%=Content (See rubric below)

20%= Grammar-Ability to communicate, and

10%=On time.

7- Fully achieves the purpose of the task. Insightfully interprets, extends beyond task, raises provocative questions. Demonstrates an in-depth understanding of concepts and content. Communicates effectively and clearly.

6- Accomplishes the purposes of the task; shows a clear understanding of concepts. Communicates effectively.

5- Substantially completes the purpose of the task. Displays understanding of major concepts, even though some less important ideas may be missing. Generally communicates successfully.

4- Purposes of the task are not fully achieved; needs elaboration; some concepts may be ineffectually stated or inappropriate. Assumptions may be flawed. Gaps in conceptual understanding; unclear

3- Important purposes of the task are not achieved; work may need to be redirected.

2- Purposes of the task are not accomplished; little evidence of appropriate reasoning.

Grading

The grading scale used for the determination of final grades will be based on a standard university grading scale. Plus and minus grades will be used in borderline cases only.