

My Teaching Philosophy

I think that the first step in teaching is to help students develop the tools needed to understand a given subject, this would not only include the mathematical concepts but also the critical thinking skills and communication skills involved, this can be achieved if the students themselves actively involved in the learning process. I think that the most important challenge in teaching is to stimulate students interest in the course and the further courses beyond it because many students look upon mathematics without much enthusiasm. To help the students achieve their goals, I think we have to encourage them to think on their own rather than to simply memorize theorems and formulas. Instead of stressing rote memorization of concepts and theorems, I often emphasize the methods and ideas needed to solve problems by combining theorems, formulas, and examples. A person in charge of a class should be both a teacher and a scholar. He(She) should know current mathematical trends in education and steadily improve his(her) teaching as well as keeping active in mathematics research. During teaching my courses, I often use the following methodology:

- I prepare a detailed plan of the lecture before the class, and I accompany the plan with a list of problems from the textbook to be solved during the class and for individual.*
- I begin my lecture by reminding students of the important points of the previous lecture which will be needed that day.*
- I ask students if any thing of the previous lecture was not clear and explain it again (if any).*
- I start my lecture and make it as clear and simple as possible, I solve different examples from exercise sets to illustrate the concepts we discuss, and leave the solved examples in the textbook for the students to solve them at home.*
- I spend most of the lecture time teaching students the techniques instead of letting them memorize theorems and formulas, by considering different examples with different ideas.*
- I try to encourage students to speak up when something doesn't make sense or when I write something not clear for them on the board or on the head projector.*

- *I slow down when discussing difficult topics, giving alternative explanations when needed and carefully explain each step.*
- *Depending on the questions the students ask during the lecture, I may give them extra problems to work on which will lead to better understanding of the material.*
- *I encourage the students in active participation during the class and discuss their answers with respect for what they are.*
- *I often give one or more problems during the lecture and ask the students to solve it (them) by themselves and follow the work of the students, then in general, I ask some of the students to solve the problem(s) on the board and explain the solution to their classmates.*
- *I encourage students to take advantage of office hours. Often times this smaller setting and more focused attention gives students extra confidence in themselves and their abilities.*
- *I often give students quiz or homework every week or two weeks, which I count the best half of these quizzes for evaluation of the students, in addition to two exams (First+ Second), and a final exam. I return these papers for the students in a reasonable time.*
- *The exams I give cover the materials everyone is expected to know. My exams usually are not so difficult to solve but also need hard work from the students to get high scores. These exams, in general, contain some easy problems which can be solved from all students attending the class, some questions need a little work, and one or two questions for smart and hard worker students.*
- *I make special arrangements for the students whose responsibilities conflict with scheduled office hours.*
- *I encourage low achieving grades students to work hard, and give them a chance to show that they can do better by helping them during the office hours and by asking them to show me regularly their thinking about some problems.*
- *I try to not make my lecture boring, because I think a boring teacher can not awaken or motivate a class.*

- *I often take attendance regularly, because attendance of the class is very important factor for the teaching process and as a one of the university regulations.*
- *I usually make statistical analysis to each exam of my exams to see places of weakness and try to resolve problems I find.*