TEACHING STATEMENT

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The opportunities to teach and work with students and to develop new educational materials and techniques as well as performing high quality research are my primary reasons for choosing an academic career. My academic background, teaching experience, research experience and career as a professor of mechanical engineering make me well-prepared to teach various types of introductory and advanced engineering courses such as engineering statics and dynamics, fluid mechanics, thermodynamics, heat transfer, aerodynamics, engineering materials, quality control, advanced convection heat transfer, advanced conduction heat transfer, multiphase flow and others. Over the last two decades, I have dedicated much of my time to quality teaching and research as well as developing courses and educational materials. As a result, I have acquired extensive teaching experience at the undergraduate and graduate levels at Tennessee Technological University, Kuwait University and the Public Authority for Applied Education and Training.

Teaching Experience

During my teaching career, I taught the following courses:

Undergraduate Courses

Engineering Statics and Dynamics
Engineering Thermodynamics
Mechanical Vibrations
Probability and Statistics
Fluid Mechanics I and II
Fluid Mechanics Lab
Heat Transfer
Aerodynamics
Quality Control
Operations Management
Senior Project Design
Industrial Management
Storage Principles
Materials Handling Technology
Metallic Materials
Engineering Materials

Graduate Courses

Continuum Mechanics
Advanced Aerodynamics
Advanced Conduction Heat Transfer
Advanced Convection Heat Transfer
Advanced Engineering Thermodynamics
Special Topics in Heat Transfer
Multiphase Flow
Gas Dynamics

Basic Materials Technology
Manufacturing Engineering Projects
Mathematics for Management Sciences
Introduction to Computers

Teaching Philosophy

Effective teaching is a challenge for all educators due to many coupled student-related and teacher-related factors and aspects. These include (and not limited to) student's background, motivation and aptitude to learning and teacher's preparation, communication, presentation style, effectiveness and love of job.

An effective teacher is one who can make and keep students in the classroom feel at ease, motivated and inspired to absorb and learn the information delivered by the teacher. Effective learning in the classroom depends greatly on the teacher's ability to maintain the interest that brought students to the specific course in the first place.

What distinguishes a teacher from another are the understanding of the students' needs and expectations, teaching style and the willingness to acquire qualities that are respected by the students and to exceed students' expectations.

It is the responsibility of the teacher to present the course subject in an interesting and engaging manner that shows the elegance and beauty of subject matter as well as its applicability to solving concrete and real-world problems and to nurture each student's latent desire to learn.

Teaching Style

My personal style of teaching excellence is based on the following principles:

1. The teacher should always come to the classroom well prepared and enthusiastic. There is no doubt that the teacher's enthusiasm is a crucial factor in student motivation. This comes from confidence, mastery of the course subjects and genuine pleasure in teaching and can bring out student learning excitement and a sense of engagement.

2. The teacher should always emphasize conceptual understanding and repeatedly touch base with the fundamentals of the course.

3. The teacher should always begin the lecture period with a brief summary of the last class meeting and end by a summary of major or important points.

4. The teacher should always encourage class discussion and try to reduce students' anxiety that can interfere with their performance.

5. The teacher should always de-emphasize grades but rather emphasize mastery and learning of the course material as being beneficial for students' careers.

6. The teacher should have or develop an interesting presentation style. Impressive presentations tend to grasp students' attention to the lecture given.

7. The teacher should use a varying speed and tone of voice. Using the same speed and tone of voice can make the students feel bored.

8. The teacher should always captivate and motivate students to do their best and to maintain interest in the course. This is probably the most important point among all. Motivation of students is not easy and it depends greatly on the teacher's enthusiasm, relevance and organization of the course material, difficulty level of material, active involvement of students, use of many understandable examples, and positive relation between the teacher and the students.

9. The teacher and teaching assistants should always be available to students outside of the classroom. Most of the time, students need a point or an idea discussed in class to be re-explained. This should always be done by the teacher alone and not by the teaching assistant. Teaching assistants should only be used to help students solve their homework and should not be asked to make a lecture.

10. The teacher should always get students' feedback to know if the students are understanding him or her. This can usually be seen by increasing eye contact with the students or by directly asking the students if they understand what he or she is saying.

11. The teacher should always instigate in students a sense of responsibility and should be a role model for them as to his/her sincerity, commitment, morals, fairness and behavior. The teacher should earn the students respect and once this is done, they will listen to him/her and will pay attention to what he/she is teaching.

12. The teacher should always avoid saying demeaning remarks to students that might prick their feeling of inadequacy.

13. The teacher should always listen to and respect his/her students, be appreciative of students' good work, understanding of students' problems and be willing to help them.

14. In higher-level and graduate courses, the teacher should place greater emphasis on students collaboration, planning and design, and critical review. Complex

scientific and engineering projects are rarely the work of an individual; students must learn to organize and work as teams as early as possible. Similarly, planning and design are essential elements of any large project, but are difficult skills to master. Finally, the teacher should encourage the ability of students to objectively critique the work of others which is a necessary precursor to being able to accurately evaluate one's own work.

Teaching Awards

- Awarded **Outstanding Teaching Award**, University Level, Kuwait University, 2001.
- Awarded **Outstanding Teaching Award**, College of Engineering and Petroleum Level, Kuwait University, 2001.
- Awarded **Outstanding Teaching Award**, Kuwait University, 1997.
- Awarded **Certificate for Outstanding Teaching**, Kuwait University, 1996.
- Awarded Pi Tau Sigma **Students' Choice Award for Best ME Professor**, Tennessee Technological University, Cookeville, Tennessee, 1991.