

# Teaching Philosophy

## Yogesh Sharma

**Prospective**—I have had the opportunity to teach in some capacity at several different levels—from supervising high school students to teaching undergraduate level classes and mentoring graduate students. As per my understanding, the teacher’s role is to act as a motivator to make sure that students are gaining knowledge as efficiently as possible by presenting a broader context for the subject matter. As a teacher at TTU, I will inspire my students to become motivated, insightful, and confident by promoting their ability to develop critical thinking skills, which will help them to shape a bright future.

### Teaching Objective and Philosophy

The goal of my teaching will be centered to motivate students to become a skilled thinker and learner. With a vision of developing recipes for state-of-the art materials, I will equip them with the knowledge useful for condensed matter physics. I will focus on providing a deep understanding of fundamental concepts and mechanisms, which will inspire the students to learn the lecture with passion and perseverance.

My teaching philosophy is outlined below:

*Motivation*—Every student has different needs, perspective, and skills for learning, and therefore, it is often very difficult to prepare the lecture to each of their needs. I will focus on inspiring students with a vision of learning. Instead of directly focusing on detailed methods of delivering the specific knowledge, I will encourage them to find the reason why they should care about learning.

*Developing interest*— By presenting meaningful real-world examples, sharing with student excitement of the subject matter, and discussing the fundamental questions, I will try to connect the lecture to the students’ interest.

*Innovative teaching*— With a concept of learning and understanding through group work, I will encourage active interaction between students through group projects and group discussion. It will provide an opportunity for student to clear confusions and misconceptions. Moreover, I will design assignments and science-projects to encourage the students for applying the concepts learnt in lectures, which will strengthen the understanding and develop their critical thinking skills.

**Teaching Plan at TTU:** I am interested in teaching a broad range of existing courses at the department of physics and astronomy, from first year undergraduate courses to specialized graduate level courses. Based on my experience and skill sets, I am also eager to initiate a new class in my areas of expertise:

- “Physical Properties of Electroceramic Oxides”

