August 3, 2021

Dear Students,

Welcome to the Johns Hopkins University and to the Whiting School of Engineering! I will be your instructor for several courses this fall and would like to tell you a little about what to expect from them. These courses are

530.107 MechE Undergraduate Seminar I
530.111 Intro to MechE Design and CAD
and
530.115 MechE Freshman Lab I

You should be registered for all three courses. If not, please contact me ASAP.

MechE Undergraduate Seminar I is a weekly course in which you will learn about the mechanical engineering profession (e.g. career planning, the patent process) and about how to succeed as a college student and engineer.

Intro to MechE Design and CAD and MechE Freshman Lab I are complementary courses with a focus on the engineering design process. Lecture topics will address such questions as “Why do machines fail?”, “How are components manufactured?”, and “How is energy transformed into mechanical work?” In the weekly labs you will dissemble power tools, construct and analyze various mechanisms, and work on a group design-build-test project. You will spend a lot of time in both courses developing visual thinking and visual communication skills, since these are so important for engineers. You will also learn the fundamentals of Computer Aided Design (CAD) and how to create proper engineering drawings using Solidworks.

I hope you enjoy the remainder of summer and I look forward to meeting you soon.

Regards,

Steven P. Marra
Associate Teaching Professor