

ASEN 5090 INTRODUCTION TO GNSS - SYLLABUS

Lecture MW 11:30-12:45 AM, AERO 114

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Logistics for Fall 2023

This fall, ASEN5090 will be available in-person and via on-line learning. Students registered in the ASEN5090-001 section are expected to attend the scheduled lectures regularly in person; however, there is no problem making up a few lectures by watching asynchronously online if you are ill or have other personal reasons for missing class.

Students registered in the ASEN5090-001B section are expected to watch recorded lectures asynchronously; however, if seats become available in the classroom, students may come in person.

Overview

ASEN 5090 is a core Aerospace Engineering Sciences (AES) course for the Astrodynamics and Satellite Navigation Focus Area. It provides an overview of the principles of operation of global satellite navigation systems (GNSS) with primary emphasis on the U.S. Global Positioning System (GPS). This course covers the

Subject Outline

1. GNSS Basics
2. Measurements and Errors
3. Position Solutions
4. GPS Signals and Receivers
5. Applications

Assignments

There are 10 homework assignments that range from working assigned problems in the book to a series of assignments that build up to programming a GPS position solution. Collaboration is permitted on these assignments. This means you may discuss the means and methods for solving problems and even compare answers, but you are not free to copy solutions from classmates or from internet resources. The work that you turn in must be your own--copying is not allowed for any assignments. Students who are found to be copying any

University Policies

Classroom Behavior

Students and faculty are responsible for maintaining an appropriate learning environment in all instructional settings, whether in person, remote, or online. Failure to adhere to such behavioral standards may be subject to discipline. Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with race, color, national origin, sex, pregnancy, age, disability, creed, religion, sexual orientation, gender identity, gender expression, veteran status, political affiliation, or political philosophy. For more information, see the [classroom behavior policy](#), the [Student Code of Conduct](#), and the [Office of Institutional Equity and Compliance](#).

Requirements for Infectious Diseases

Members of the CU Boulder community and visitors to campus must follow university, department, and building health and safety requirements and all public health orders to reduce the risk of spreading infectious diseases.

