Course Description:
Introduction to space and space flight; laws of particle mechanics; orbits and trajectories; space vehicles and propulsion. A full description of the course is available in the Undergraduate Degree Programs Bulletin. This course will require both traditional mathematical analysis techniques, and the use of computers to solve practical problems. Students will be permitted to use the programming language of their choice for projects.

Dates:
Monday, May 16, 2016 through Friday, August 12, 2016.

Mode of Delivery:
Online course; students will progress through the course together week by week.

Evaluation Methods:
- Online Quizzes
- Projects (including computer programming assignments)
- Take-Home Exams

Audience:
- This course is a required course for students majoring in Aerospace Engineering.
- This course could potentially be used as an elective in many engineering majors, and could potentially be used as an elective in some science majors.
- This course could potentially be used towards the Space Systems Engineering Certificate.

Contact your adviser for more information on how this course could be used towards completion of the requirements of your program of study.

Prerequisites:
- E MCH 212; MATH 250 or MATH 251; CMPSC 121, CMPSC 200 or CMPSC 201.
- Knowledge of matrix algebra (e.g. MATH 220) would be beneficial for the course.

Instructor:
Brad Sottile (bsottile@psu.edu). Please contact Brad Sottile with any questions.