

AOSS Graduate Program

Departmental Core Courses

551 Advanced Geophysical Fluid Dynamics (4 credits)
532 Radiative Transfer (4 credits)
747, 749 Seminar (1 credit, 4 terms)

Atmospheric Program Core Courses

479 Atmospheric Chemistry (4)
411 Cloud & Precipitation Processes (3)

Space & Planetary Program Core Courses

464 Space & Spacecraft Environment (4)
565 Planetary Atmospheres (4)
495 Upper Atmosphere & Ionosphere (4)

Additional Departmental Requirements

Each doctoral student is required to take three additional AOSS courses relevant to their research.

401 Geophysical Fluid Dynamics	410 Earth System Modeling
414 Weather Systems	431 Radiowave Propagation and Link Design
440 Meteorological Analysis Laboratory	450 Geophysical ElectroMagnetics
451 Atmospheric Dynamics	462 Instrumentation for Atmospheric & Space Sciences
467 Biogeochemical Cycles	470 Solar Terrestrial Relations
475 Earth, Atmosphere & Ocean Interactions	480 Climate Change Action
581 Space Policy and Management	582 Spacecraft Technology
583 Management of Space Systems Design	584 Space Instrumentation
585 Introduction to Remote Sensing and Inversivity Theory	590 Space Systems Projects
597 Fundamental of Space Plasma Physics	605 Current Topics in Atmospheric, Oceanic & Space Sciences

AOSS 463 Air Pollution Meteorology (3)
AOSS 462 Instrumentation for Atmospheric & Space Sciences (4)
AOSS 584 Space Instrumentation (3)
AOSS 585 Remote Sensing & Inversion Theory (3)
AERO 523 Computational Fluid Dynamics (3)
Chem 567 Chemical Kinetics (3)
Chem 570 Molecular Physical Chemistry (3)
Chem 580 Molecular Spectra & Structure (3)
EECS 501 Probability & Random Processes (4)
EECS 530 Electromagnetic Theory (3)
EECS 532 Microwave Remote Sensing: Radiometry (3)
Math 450 Advanced Mathematics for Engineers (4)
Math 571, 572 Numerical Methods for Scientific Computing (3)
NRE 430 Soil Properties & Processes (3)
NRE 435 Forest/Terrestrial Ecology (4)

Example Program Electives

AOSS 410 Earth System Modeling (4)
AOSS 462 Instrumentation for Atmospheric & Space Sciences (4)
AOSS 584 Space Instrumentation (3)
AOSS 578 Air Pollution Chemistry (3)
AOSS 584 Space Instrumentation (3)
AERO 523 Computational Fluid Dynamics (3)
Astron 500 Theoretical Astrophysics (3)
Astron 501 Modern Astronomical Technology (3)
Physics 505 Electricity & Magnetism (3)