

Fall 2014 Textbook List

Unless otherwise stated in this list, students are expected to purchase the current version/edition of the textbook with CDs or other enclosed materials.

The following list is not complete. Additional information is forthcoming.

ASEN 1400 Gateway to Space (Koehler)
No Textbook Required

ASEN 2001-010 Aero 1: Statics, Structures & Materials (Jackson/Doostan)

1. Hibbeler, R.C.; "Statics and Mechanics of Materials" 4th edition; 2010; Pearson Prentice Hall; 9780122166744
2. Mastering Engineering – Standalone Access Card – For Statics and Mechanics of Materials

ASEN 2002-010 Thermo & Aerodynamics (Thayer/Forbes)

1. Cengel; "Fundamentals of Thermal-Fluid Sciences with Student Resource DVD" 4th edition; 2012; McGraw-Hill; 9780077422400

ASEN 2012-001 Experimental Computational Methods (Jackson)

1. Pratap, Rudra; "Getting Started with MATLAB: A Quick Introduction for Scientists and Engineers"; 2009; Oxford University Press; 9780199731244
2. Taylor, John R.; "An Introduction to Error Analysis: The Study of Uncertainties in Physical Measurements"; 1996; 2nd edition; University Science Books; 9780935702750

ASEN 3046-001 Humans in Aviation (Scott)

1. Grant, R.G.; "Flight: The Complete History"; 2007; Dorling Kindersley Publishing, Incorporated; ISBN 9780756619022
2. Wise, Hopkins and Garland; "Handbook of Aviation Human Factors"; 2nd Edition (Human Factors in Transportation), hardcover 2009; CRC Press; ISBN 9780805859065

ASEN 3111-010 Aerodynamics (Jansen)

1. John D. Anderson, Jr.; "Fundamentals of Aerodynamics"; 5th edition; 2011; McGraw Hill; 9780073398105

ASEN 3112 -010 Structures (Felippa)

Materials available on the web

ASEN 3113-010 Thermo Dynamics and Heat Transfer (Biringen)

1. Moran, Shapiro, Munson and Dewitt; "Introduction to Thermal Systems Engineering"; John Wiley & Sons; 0471204900

ASEN 4013-001 (Kantha)

1. Sforza, Pasquale M.; "Theory of Aerospace Propulsion"; Elsevier; 9781856179126; Copyright: 2011; Edition: 1

ASEN 4018-010 (Lawrence)
No Textbook Required

ASEN 4114/5114-010 Automatic Control Systems (Lawrence)

1. Franklin, Powell, and Emami-Naeini; "Feedback Control of Dynamic Systems"; 7th Edition; 2014; Prentice Hall; 978-0133496598

ASEN 4123-001 Vibration Analysis (Hussein)

1. Rao, Singiresu; "Mechanical Vibrations" 5th Edition; Prentice Hall; ISBN 978-0132128193

ASEN 4138-010 Aircraft Design (Gerren)

1. Raymer, Daniel "Aircraft Design : A Conceptual Approach" 5th edition; AIAA; ISBN 9781600869112

ASEN 4519/5519-010 Microavionics (Palo)

1. Gaonkar, Ramesh; "Fundamentals of Microcontrollers and Applications"; Cengage Learning; 9781401879143

ASEN 5007-001 Intro to Finite Elements (Felippa)
Materials available on web

ASEN 5012-002 Mechanics of Aerospace Structures (Xiao - MCEN)
Check with the professor

ASEN 5014-001 Linear Control Systems (Ahmed)

1. Brogan, William; "Modern Control Theory" 3rd Edition; Prentice Hall; ISBN 9780135897638

ASEN 5018/6028-010 Graduate Projects (Tanner)

1. Cook, Curtis R.; "Just Enough Project Management"; 2004; McGraw-Hill; 0071445404

ASEN 5050-001 Space Flight Dynamics (Parker)

1. Vallado, David A.; "Fundamentals of Astrodynamics and Applications"; 4th Edition; Springer; 9781881883180

ASEN 5051-001 Fluid Mechanics (Farnsworth)

1. Kundu; "Fluid Mechanics"; 4th Edition; 9780123813992

ASEN 5070-002 Statistical Orbit Determination I (Jones)

1. Tapley, Schutz, and Born; "Statistical Orbit Determination"; 2004; Elsevier Science & Technology Books; 0126836302

ASEN 5090-001 Intro to GNSS (Axelrad)

1. [Misra and Enge; "Global Positioning System, Signals Measurements, and Performance"; 2nd Edition; Ganga-Jamuna Press; ISBN 978-0970954428](#)

ASEN 5158-001 Space Habitat Design (Klaus)

1. Larson, Wiley; "Human Spaceflight with Website"; McGraw-Hill; ISBN 9780077230289

ASEN 5215-001 Oceanography (Emery)

1. Talley, Pickard, Emery, and Swift; "Descriptive Physical Oceanography: An Introduction"; 9780750645522

ASEN 5227-001 Aerospace Math 1 (Emery)

1. Boas, Mary; "Mathematical Methods in the Physical Sciences"; 3rd edition; 9780471198260

ASEN 5417-001 Numerical Methods – Differential Equations (ME)

Check with the professor

ASEN 5519-001 Commercial Spaceflight Operations (Born/Cheetham)

No Textbook Required

ASEN 5519-003 Aerorobotics (Frew)

No Textbook Required

Recommended: Beard, Randal and McLain, Tim; "Small Unmanned Aircraft"; Princeton Press

ASEN 5519-004 Viscous Flows (ME)

White, Frank; "Viscous Fluid Flow"; 3rd edition; McGraw-Hill 9780072402315

ASEN 5519-005 Classical Thermodynamics (ME)

Check with the professor

ASEN 5519-006 Heat Transfer (ME)

Check with the professor

ASEN 6013-001 High Speed Propulsion (Starkey)

1. Heiser, Pratt, Daley, and Mehta; "Hypersonic Airbreathing Propulsion"; AIAA ISBN 9781563470356

ASEN 6014-001 Spacecraft Formation Flying (Schaub)

1. Schaub and Junkins; "Analytical Mechanics of Space Systems, Third Edition"; AIAA Education Series; ISBN 9781624102400

ASEN 6020-001 Optimal Trajectories (Scheeres)

1. Longuski, James; "Optimal Control with Aerospace Applications" Springer; ISBN 9781461489443

ASEN 6070-001 Satellite Geodesy (Nerem)

1. Herring, Tom; "Geodesy : Treatise on Geophysics"; Elsevier; ISBN 9780444534606

ASEN 6519-002 Isogeometric Methods (Evans)

1. Cottrell, Hughes, and Bazilevs; "Isogeometric Analysis: Toward Integration of CAD and FEA"; Wiley; ISBN 978-0470748732

ASEN 6519-003 Lidar Remote Sensing (Chu)

1. Fujii, Takashi; "Laser Remote Sensing"; CRC Press; ISBN 9780824742560

ASEN 6519-004 GNSS Environmental Sensing (Larson)

No Textbook Required