Aerospace Engineering Sciences
Textbooks for Spring 2014 Courses

GEEN 1400 - FR Engineering Projects – Bedard, Tanner, Jackson
No Textbook

ASEN 1400 – Gateway to Space – Koehler
No Textbook

ASEN 1022 – Aerospace Materials – Hussein
"Introduction to Materials Science for Engineers", Shackelford, 7th edition, Pearson/Prentice Hall, 2009; ISBN: 978-0136012603

ASEN 2003 - Aero 3: Dynamics & Systems – Larson/Axelrad
"Engineering Mechanics: Dynamics w/ Study Pack and Mastering Engineering Access" Bedford, 5th edition, Pearson; ISBN: 9780132971133

ASEN 2004 - Aero 4: Vehicle Design & Performance – Gerren/Parker
(1) "Understanding Space: An Introduction to Astronautics", Larson, 3rd ed., McGraw Hill, 2007; ISBN: 9780077230302
(2) "Introduction to Flight", Anderson, 7th ed., McGraw Hill 2011; ISBN: 9780073380247

ASEN 3036 - Special Topics: Intro to Human Spaceflight – Voss
"Spacefaring, the Human Dimension" by Albert Harrison, Univ of California Press, 2002; ISBN 9780520236776

ASEN 3046 – Intro to Human Spaceflight – Scott
(1) "Flight: Complete History" Grant, Dorling Kindersley Publishing, Inc., 2007; ISBN 9780756619022
(2) "Handbook of Human Aviation" Kantowitz, 2nd ed., CRC Press, 2009; ISBN 9780805859065

ASEN 3128 – Aircraft Dynamics – Frew
"Dynamics of Flight: Stability and Control", Bernard Etkin, Wiley & Sons, 3rd Ed., 1995, ISBN: 978-0-471-03418-6
Optional: "Small Unmanned Aircraft: Theory and Practice." R. Beard and T. McLain; Princeton University Press; ISBN: 978-0691149219

ASEN 3200 - Orbital Mechanics/Att Dyn & Control – Scheeres/Lawrence
"Orbital Mechanics for Engineering Students" Curtis, 3rd ed., Elsevier Science & Technology Books, 2013 ISBN 9780080977478

ASEN 3300 - Electronics & Communications – Akos/Chu
"Practical Electronics for Inventors" by Scherz and Monk; Third Edition ISBN: 9780071771337

ASEN 4012 – Materials – Jackson
(1) "Materials: Engineering, Science, Processing and Design" 3rd edition by Ashby, Shercliff and Cebon, 2013 ISBN 9780080994345
(2) "Materials Selection in Mechanical Design" Ashby, 4th ed., Elsevier Science & Technology Books, 2010 ISBN 9781856176637

ASEN 4028 - Senior Projects 2: Design Practicum – Lawrence
No Textbook

ASEN 4519-001 – Aerospace Software – Akos
No Textbook

ASEN 5010 - Spacecraft Att Dyn/Controls – Hogan/Schaub

"Analytical Mechanics of Space Systems", Schaub and Junkins, 2nd ed., AIAA, 2009; ISBN: 978-1-60-086721-7

ASEN 5014 – Linear Control Systems – Ahmed
"Modern Control Theory," William Brogan, 3rd ed., Prentice Hall, ISBN 9780135897638

ASEN 5016 – Space Life Sciences – Klaus
"Space Physiology", Buckley, Oxford University Press, 2006; ISBN 9780195137255

ASEN 5018/6028 – Graduate Projects – Tanner
"Just Enough Project Management", 2004, McGraw Hill, ISBN: 978-0-07-144540-5

ASEN 5022 – Dynamic Aero Structures – Park
No Textbook

ASEN 5053 – Rocket Propulsion – Kantha
"Rocket Propulsion Elements", Biblarz, 8th ed., Wiley & Sons, 2009; ISBN: 9780470080245

ASEN 5148 - Spacecraft Design – McGrath
"Elements of Spacecraft Design", Brown, 2003; ISBN 9781563475245

ASEN 5168 – Remote Sens Instr Design – Emery
No Textbook

ASEN 5188 – Space Systems Engineering - Withnell

(1) NASA. *NASA Systems Engineering Handbook*. NASA/SP-2007-6105, Rev 1. Washington, DC: NASA, December 2007 - http://foiaelibrary.gsfc.nasa.gov/_assets/doclibBidder/tech_docs/5.%20NASA%20SP-6105%20Rev%201%20%28Sys%20Eng%20Handbook%29.pdf
(2) Haskins, Cecilia, ed. *INCOSE Systems Engineering Handbook: A Guide for System Lifecycle Processes and Activities*. INCOSE-TP-2003-002-03.2.2. San Diego, CA: International Council on Systems Engineering (INCOSE), October 2011

ASEN 5210 – Remote Sensing Seminar – Emery
No Textbook

ASEN 5245 – Radar and Remote Sensing – Thayer
"Principles of Modern Radar: Basic Principles", edited by Richards, Scheer and Holm, SciTech Publishing, 2010 (second printing). ISBN 978-1891121-52-4 (see www.scitechpub.com)

ASEN 5307 – Engineering Data Analysis Methods – Emery

(1) "Data Analysis Methods in Physical Oceanography" by Emery and Thomson ISBN: 978-0444507570 – found on Amazon.com
(2) "MATLAB Recipes for Earth Science", Trauth, 3rd ed., Springer, 2010; ISBN 9783642127618

ASEN 5335 – Aerospace Environment – Knipp
"Understanding Space Weather and the Physics Behind It" Knipp, 2011 1st ed, McGraw Hill, ISBN: 978-0-07-340890-3

ASEN 5519-002 – Commercial Spaceflight Operations Lab – Born/Cheetham/Parker
No Textbook

ASEN 5519-004 - CFD Unstructured Grid - Jansen
No Textbook

ASEN 5519-005 – Fluid Dynamics of Renewable Energy Systems – Hamlington (ME)
Need information from the professor

ASEN 5519-006 – Inverse Methods – Henze (ME)
"Parameter Estimation and Inverse Problems; ISBN: 9780123850485; Author: Thumber; Publisher: Elsevier
ASEN 6008 – Interplanetary Mission Design – Davis/Parker
No Textbook

ASEN 6021 – Advanced Viscous Flows – Biringen
Need information from the professor

ASEN 6037 – Turbulent Flows – Evans
"Turbulent Flows", Pope, 2000; ISBN 9780521598866

ASEN 6107 – Felippa
No Textbook

ASEN 6080 – Stat Orbit Determination 2 – McMahon
"Statistical Orbit Determination" Schutz, Tapley, Born, 2004; ISBN: 9780126836301

ASEN 6107 – Nonlinear FEM – Felippa
No Textbook

ASEN 6517 – Computational Methods in Dynamics – Park
No Textbook

ASEN 6519-002 – Space Instrumentation - Sternovsky
No Textbook

ASEN 6519-004 – Uncertainty Quantification - Doostan
Optional: "Uncertainty Quantification: Theory, Implementation, and Applications" Smith, 2013; ISBN: 978-1-611973-21-1