

07-Mec-A1 Applied Thermodynamics and Heat Transfer

Moran, M.J., H.N. Shapiro, B.R. Munson and D.P. DeWitt, Introduction to Thermal Systems Engineering: Thermodynamics, Fluid Mechanics, and Heat Transfer. John Wiley and Sons, 2002.

07-Mec-A2 Kinematics and Dynamics of Machines

Inman, D.J., Engineering Vibrations, 2nd Edition. Prentice-Hall, 2000, ISBN 978-0137261420.

Waldron, K.J., and Kinzel, G.L., Kinematics, Dynamics and Design of Machinery. John Wiley & Sons, 2004, ISBN 0471244171

07-Mec-A3 System Analysis and Control

Bissell, C.C., Control Engineering, 2nd Edition. Taylor & Francis, 1996, ISBN 978-0412577109.

Franklin, Feedback Control of Dynamic Systems, 2006. ISBN 978-0131499324.

07-Mec-A4 Design and Manufacture of Machine Elements

Juvinall, Robert C., and Kurt M. Mershek, Fundamentals of Machine Component Design, 4th Edition. Wiley, 2005. ISBN: 0-471-66177-5.

Groover, Mikell P., Fundamentals of Modern Manufacturing: Materials, Processes, and Systems, 3rd Edition. Wiley, 2006. ISBN: 0-471-74485-9.

07-Mec-A5 Electrical and Electronics Engineering

Edminister, J. A., and M. Nahvi, Electric Circuits, 4th Edition. Schaum's Outlines, 2003.

Nasar, S., Electric Machines and Electromechanics, 2nd Edition. Schaum's Outlines, 1998

Rizzoni, G., Principles and Applications of Electrical Engineering, 5th edition. McGraw Hill, 2007.

07-Mec-A6-1 Fluid Machinery

Dixon, S.L., Fluid Mechanics and Thermodynamics of Turbomachinery, 5th Edition. Butterworth-Heinemann, 2005.

Finnemore, E.J. & J.B. Franzini, Fluid Mechanics with Engineering Applications, 10th Edition. McGraw-Hill, 2002.

07-Mec-A6-2 Advanced Strength of Materials

Ugural, Ansel, & Saul Fenster, Advanced Strength & Applied Elasticity, 4th Edition. Prentice Hall Englewood Cliffs New Jersey 07632 2003.

Budynas, R.G., Advanced Strength & Applied Stress Analysis, 2nd Edition. McGraw-Hill, 1998.

Boresi, A.P., and R.J. Schmidt, Advanced Mechanics of Materials, 6th Edition. John Wiley & Sons, 2003.

07-Mec-B1 Advanced Machine Design

Shigley and Mischke, Mechanical Engineering Design, 5th edition (metric/english edition) McGraw Hill. ISBN 0-07-056899-5.

07-Mec-B2 Environmental Control in Buildings

F.C. McQuinston & G.D. Parker, Heating, Ventilating, & Air Conditioning – Analysis & Design, 5th edition. John Wiley & Sons, 1994. ISBN # 0471-581070.

Jennings, Environmental Engineering. International Test Book Co.; Carrier & Trane System Manuals; ASHRAE Handbooks; ASHRAE Environmental Control Principles & Education Supplement to ASHRAE Handbook Fundamentals Volume.

07-Mec-B3 Energy Conversion and Power Generation

Weston, K.C., Energy Conversion. West Publishing Co., 1992. (available as an online ebook at <http://onlinebooks.library.upenn.edu/webbin/book/lookupid?key=olbp33597>)

Khartchenko, Nikolai, Advanced Energy Systems. Crc Press Llc, 1998. ISBN #1560326115.

07-Mec-B4 Integrated Manufacturing Systems

Groover, Mikell P., Automation, Production Systems, and Computer-integrated Manufacturing, 2nd Edition. Prentice Hall, 2001. ISBN-10: 0130889784.

07-Mec-B5 Product Design and Development

Prime Texts:

Ulrich, Karl T. & Steven D. Eppinger, Product Design and Development, 4th Edition. McGraw Hill, 2008. ISBN: 13 9780073101422.

Boothroyd, G., W.A. Knight & Peter Dewhurst, Product Design for Manufacture and Assembly, 2nd Edition. Marcel Dekker Inc. 2002. ISBN-10: 082470584X.

Supplementary Texts:

Ullman, David G., The Mechanical Design Process, 3rd Edition. McGraw Hill, 2003. ISBN: 0072373385.

07-Mec-B6 Advanced Fluid Mechanics

White, F.M., Fluid Mechanics, 6th Edition. McGraw-Hill, 2006.

07-Mec-B7 Aero and Space Flight

Anderson, J.D., Introduction to Flight, 4th edition. McGraw Hill, 2000, ISBN 007109282X.

Barnes W. McCormick Aerodynamics, Aeronautics & Flight Mechanics 2nd Edition. Wiley, 1995.

07-Mec-B8 Engineering Materials

Prime Text:

Ashby, Michael and D.R.H. Jones, Engineering Materials 1: An Introduction to Properties, Applications and Design, 3rd Edition. Butterworth-Heinemann, 2005. ISBN-10: 0750663804.

Ashby, Michael and D.R.H. Jones, Engineering Materials 2: An Introduction to Microstructures, Processing and Design, 3rd Edition. Butterworth-Heinemann, 2005. ISBN-10: 0750663812.

Supplementary Texts:

Courtney, Thomas H., Mechanical Behavior of Materials, 2nd Edition. Waveland Pr. Inc., 2005. I S B N-10: 1577664256.

Ashby, Michael, Materials Selection in Mechanical Design, 3rd Edition. Butterworth-Heinemann, 2005. ISBN-10: 0750661682.

07-Mec-B9 Advanced Engineering Structures*Prime Text:*

Dowling, Norman E., Mechanical Behavior of Materials, 3rd Edition. Prentice Hall, 2006. ISBN-10: 0131863125.

Megson, T.H.G., Aircraft Structures for Engineering Students, 3rd Edition. Butterworth-Heinemann, 1999. ISBN-10: 0340705884.

Supplementary Texts:

LeMaitre, J., Handbook of Materials Behavior Models, 3 vol. Set. Elsevier, 2001. ISBN 0-12-443341-3.

Bruhn, E.F., Analysis and Design of Flight Vehicle Structures. Jacobs Pub, 1973. ISBN-10: 0961523409.

Reddy, J.N., Mechanics of Laminated composite Plates and Shells: Theory and Analysis, 2nd Edition. CRC Press, 2003. ISBN: 0849315921.

Dutton, Stuart, Donald Kelly, and Alan A. Baker (Editors), Composite Materials for Aircraft Structures, 2nd Edition. American Institute of Aeronautics & Ast., 2004. ISBN-10: 1563475405.

07-Mec -B10 Finite Element Analysis

Cook, R.D., Finite Element Modeling for Stress Analysis. John Wiley & Sons, Toronto, 1995.

Frank L. Stasa, Applied Finite Elements for Engineers, Holt, Reinhart, 1985, ISBN #0-03-062737-0.

Logan, A First Course in Finite Element Method, P.W.S. Engineering, 2nd edition, 1992. W.

Bickford, A First Course in Finite Element Method, Irwin, 1990.

07-Mec-B11 Acoustics and Noise Control*Prime Text:*

Barron, Randall F., Industrial Noise Control and Acoustics. Marcel Dekker, 2002. ISBN 0-8247-0701-X

Supplementary Texts:

Bell, Lewis H. and Douglas H. Bell, Industrial Noise Control: Fundamentals and Applications, 2nd Edition, Marcel Dekker, 1993. ISBN 0-8247-9028-6

Irwin, J.D., Industrial Noise and Vibration Control. Prentice-Hall, 1979. ISBN 0-13-461574-3

Wilson, Charles E., Noise Control: Measurement, Analysis, and Control of Sound and Vibration. Krieger, 1994. ISBN 0-89464-879-9

07-Mec-B12 Robot Mechanics

Paul, R.P., Robot Manipulators - Mathematics, Programming and Control. MIT Press, 1981. ISBN 026216082X (out of print, but could be borrowed from libraries)

Craig, J.J., Introduction to Robotics: Mechanism and Control. Addison-Wesley Publishing Co., 2005. ISBN 0201543613

07-Mec-B13 Biomechanics (04-Bio -A4)

Berger, S.A., W. Goldsmith and E.R. Lewis, Introduction to Bioengineering. Oxford University Press, 2000.

Nordin, Margareta and Victor H. Frankel, Basic Biomechanics of the Musculoskeletal System. Lippincott Williams&Wilkins, 3rd edition, 2001.