

Mechanical Engineering – Recommended Textbook List

Note: Students are advised to check through edveNTUre for the latest updates of Textbooks/References

Course	Textbook
MP0001 Essential Mathematics	1. Thomas Finney, Calculus, 9 th edition, Addison Wesley, 1996 2. Erwin Kreyszig, Advanced Engineering Mathematics, 8 th edition, John Wiley and Sons, 1999.
MP2001 Mechanics of Materials	Beer, F.P., Johnston, E.R. and DeWolf, J.T., <i>Mechanics of Materials</i> , 4th Ed, SI Units, McGraw-Hill, 2006.
MP2002 Kinematics and Dynamics of Machinery	Kinematics and Dynamics of Machinery, 3rd ed., Wilson & Sadler, Pearson Pub.
MP2003 Thermodynamics	Cengel, Y.A., Boles, M.A. <i>Thermodynamics: An Engineering Approach</i> . 6 th Ed. In SI Units, McGraw Hill, New York, 2007.
MP2004/MP3104 Manufacturing Technology and Materials	Kalpajian, S and Schmid, SR, Manufacturing Engineering and Technology, 4 th Edition, Prentice-Hall, 2001.
MP2005 Fluid Mechanics	Fundamental Fluid Mechanics by Munson et al. 5 th edition
MP2006 Mathematics 3	Erwin Kreysig, Advanced Engineering Mathematics, Wiley & Sons
MP2007 Mathematics 4	Advanced Engineering Mathematics» by Erwin Kreyszig, 9th Edition, John Wiley & Sons, Inc. 2006.
MP2008 Electrical and Electronics: Circuits and Devices	Rizzoni, Giorgio, Principles and applications of Electrical Engineering, McGraw Hill, 5 th Edition, 2005
MP2010 Thermodynamics & Heat Transfer	1. Cengel, Y.A., Boles, M.A. <i>Thermodynamics: An Engineering Approach</i> . 6 th Ed. In SI Units, McGraw Hill, New York, 2007. 2. Holman J.P. Heat Transfer, 10th Edition. Mc Graw Hill, 2009
MP2011 Engineering Graphics and Machine Components	1. Engineering Drawing, M.A. Parker & F. Pickup [1992], Stanley Thornes. (first part of the course 'graphics' will use lecture notes) 2. Machine Elements in Mechanical Design, Robert Mott, 2006, Pearson.
MP2013 Mechatronics System Interfacing	Introduction to Mechatronics and Measurement Systems, 3rd edition, Alciatore, D.G., Hstand, M.B., McGraw-Hill, 2003.
MP3001 Dynamics & Control	Modern Control Engineering, K Ogata Prentice Hall
MP3002/MP4102 Mechanics of Deformable Solids	1. D.J. Inman, "Engineering Vibration", Prentice Hall International Inc., 2001. 2. PP Benham, RJ Crawford and CG Armstrong, 2 nd edition, Longman Group Ltd. 1996
MP3003 Heat Transfer	Incropera, F.P., DeWitt, D.P., Bergmann, T. L., and Lavine, A. S., <i>Fundamentals of Heat and Mass Transfer</i> , 6 th Edition, Wiley, 2007.
MP3004 Concurrent Design and Engineering	1. Boothroyd, G, Assembly Automation and Product Design, Marcel Dekker Inc., 1992. 2. Hunter, TA, Engineering Design for Safety, McGraw-Hill, 1992. 3. Lewis, H., and Gertsakis, J (2001). Design + environment: a global guide to designing greener goods. Sheffield : Greenleaf Publications Ltd.
MP3005 Computer-aided Design	1. Chris McMahon, Jimmie Brown CAD/CAM: Principles, Practice and Manufacturing Management. 2 nd edition Addison-Wesley. (Cover about 60-70%). 2. Ibrahim Zeid, Mastering CAD/CAM, McGraw-Hill. 3. P. N. Rao, CAD/CAM Principles and Applications, 2 nd Edition, McGraw-Hill.
MP3006 Microprocessor Systems	Microprocessors and Microcomputers", R. J. Tocci & F. J. Ambrosio, Prentice Hall, Sixth Edition, 2006

MP3007 Real-time Software for Mechatronics Systems	Control Software for Mechanical Systems, D.M.Auslander,
MP3010 Engineering Product Design	<ol style="list-style-type: none"> 1. Engineering Design by Pahl and Beitz on design methodology 2. Machine Elements in Mechanical Design by R.L Mott on machine elements 3. Fluid Power with applications by Anthony Esposito 4. Injection Mould Design by RGW Pye on mould design 5. Plastic Part Technology by Edwards A Muccio on plastic part design
MP3011 Engineering Design	<ol style="list-style-type: none"> 1. "Fluid Power with applications by Anthony Esposito' on Hydraulic power 2. "Engineering Design by Pahl and Beitz" on Design methodology
MP4001/MP4F03Quality Assurance and Management	Please check with Course Coordinator.
MP4002/MP4E02 Human Fctors in Design	A guide to Human Factors and Ergonomics by Martin Helander, CRC Press.
MP4003/MP4E03 Strategic Management of Product Development	Smith, Preston G, Developing products in half the time: new rules, new tools.
MP4004 Advanced Manufacturing and Nanotechnology	Please check with Course Coordinator.
MP4005 Fluid Dynamics	Fundamentals of Fluid Mechanics by Munson, Young and Okiishi, 4 th ed, Wiley
MP4006 Robotics	Introduction to Robotics: Mechanics and Control - By John Craig
MP4007 Engineers and Society	Engineering Ethics – Concepts and Cases by Charles E Harris, Michael S Pritchard and Michael J Rabins published by Wadsworth Cengage Learning.
MP4008 Human Resource Management	Hodgetts RM, (latest edition), Modern Human Relations at Work, The Dryden Press for HRM
MP4010 Mechatronics Systems Design and Analysis	Integrated Electrical and Electronic Engineering for Mechanical Engineers, Fraser and Milne, McGraw Hill 1994.
MP4011 Mechanical System Design and Analysis	<ol style="list-style-type: none"> 1. Integrated Electrical and Electronic Engineering for Mechanical Engineers, Fraser and Milne, McGraw Hill 1994 2. Chandrupatla, T.R. & Belegundu, A.D. (2002) Introduction to Finite Elements in Engineering, 3rd Ed., Prentice Hall 3. Eric M. Malstrom, 1981, What every engineer should know about manufacturing cost estimating, Dekker, New York.