

NANYANG TECHNOLOGICAL UNIVERSITY
School of Civil and Environmental Engineering

Recommended Textbooks and References for
Second Year (CEE) Courses for AY2015-16

CV0001 / CV2902 CIVIL ENGRG AND SUSTAINABLE BUILT ENVIRONMENT / ENGRG INNOVATION & DESGIN (CEE)

Text To be decided by course lecturer

Reference To be decided by course lecturer

CV1011 / CV2101 MECHANICS OF MATERIALS

Text

Hibbeler, R.C., Statics and Mechanics of Materials, 3rd SI edition, Prentice-Hall, 2011 (Call no: TA405.H624S 2011)

References

Beer, F.P., Johnston, E.R. and Eisenberg, E.R., Vector Mechanics for Engineers, Statics, 9th edition, McGraw-Hill Higher Education, 2009

Beer, F.P., Johnston, E.R. and DeWolf, J.T., Mechanics of Materials, 6th edition, McGraw-Hill Higher Education, 2012 (TA405.B415 2012)

Bedford, A., Liechti, K.M. and Fowler, W.T., "Statics and Mechanics of Materials", Pearson-Prentice Hall, 2003.

Morrow, H.W. and Kokernak, R.P., Statics and Strength of Materials, 7th edition, Prentice Hall, 2011 (TA405.M883 2011)

Cheng, F-H., "Statics and Strength of Materials", 2nd edition, McGraw Hill, 1997.

Gere, James M., Mechanics of Materials, 7th edition, Cengage Learning, 2009 (TA405.G367 2009).

Popov, E.P., "Engineering Mechanics of Solids", 2nd edition, Prentice-Hall, 1999.

CV1012 / CV2601 FLUID MECHANICS

Text

Munson, B.R., Young, D.F. and Okiishi, T.H., Fundamentals of Fluid Mechanics, 6th edition, Wiley, 2010 (Call no: TA357.M969 2010)

References

Shames, I.H., Mechanics of Fluids, 4th edition, McGraw-Hill, 2003 (TA357.S528 2003)

Potter, M.C. and Wiggert, D.C., Mechanics of Fluids, 4th edition, Brooks Cole /Thompson Learning, 2012 (TA357.P868 2012)

CV1013 / CV2003 CIVIL ENGINEERING MATERIALS

Text

Mamlouk, M.S. and Zaniewski, "Materials for Civil and Construction Engineers," International Version, 3rd Ed., Pearson, 2011

References

Jackson, N. and Dhir, R.K., "Civil Engineering Materials", 5th edition, Palgrave, New York, 1996.

Derucher, K.N., Korfiatis, G.P. and Ezeldin, A.S., "Materials for Civil and Highway Engineers", 4th edition, Prentice-Hall, New Jersey, 1998. (Ch. 14) [TA403.2.D438 1998]

Neville, A.M. and Brooks, J.J., Concrete Technology, 2nd edition, Prentice Hall, 2010 (TA439 .N523CT 2010)

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Mindess, S., Young, J.F. and Darwin, D., "Concrete". 2nd edition, Prentice-Hall, New Jersey, 2003.

Atkins, H.N., Highway Materials, Soils and Concrete, 3rd edition, Prentice Hall, New Jersey, 1997

Young, J.F., Mindess, S., Gray, R.J. and Bentur, A., "The Science and Technology of Civil Engineering Materials", International edition, Prentice Hall International, Inc., New Jersey, 1998.

Somayaji, S., "Civil Engineering Materials", 2nd edition, Prentice-Hall, New Jersey, 2001.

CV1711 / CV2901 CIVIL ENGINEERING DRAWING / ENGINEERING DRAWING AND MEASUREMENT

Text None

References

Official training courseware for AutoCAD - Autodesk

David A. Madsen, David P. Madsen and J. Lee Turpin, Engineering Drawing and Design, 5th edition, Delmar Thomson Learning, 2012 (Call no: T353.E57E 2012)

Bangash, M.Y.H., Structural detailing in concrete: a comparative study of British, European and American codes and practices, 2nd edition, Thomas Telford, 2003 (TA681.5.B216 2003)

Bangash, M.Y.H., Structural detailing in steel: a comparative study of British, European and American codes and practices, 1st edition, Thomas Telford, 2000 (TA684.B216)

John Uren and Bill Price, Surveying for Engineers, 5th edition, Palgrave Macmillan, 2010 (TA545.U75 2010)

Bannister, A., Raymond, S., Baker, R., "Surveying", Pearson Education Ltd, 1998. [TA545.B219 1998]

CV2011 / CV2102 STRUCTURAL ANALYSIS I / STRUCTURES I

Text

Hibbeler, RC, Structural Analysis, 8th edition in SI Units, Pearson Prentice-Hall, 2012 (Call no: TA645.H624 2012)

References:

Fleming, J.F., "Analysis of Structural Systems" Prentice-Hall International, Inc., International edition, 1997.

Coates, R.C., Coutie, M.G. and Kong, F.K., "Structural Analysis", 3rd edition, Chapman & Hall, London, UK, 1994

Leet, KM, Uang, C-M, Gilbert, AM., Fundamentals of Structural Analysis, 4th edition, McGraw-Hill, 2011 (TA645.L487 2011)

West, H.H. and Geshwindner, L.F., "Fundamentals of Structural Analysis", 2nd edition, John Wiley & Sons, Inc., 2002

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CV2012 / CV3101 STRUCTURAL ANALYSIS II

Text

R.C. Hibbeler, *Structural analysis*, 8th edition, Prentice Hall, 2012 (TA645.H624 2012)

References:

Leet K.M., Uang C.M. and Gilbert A.M., *Fundamentals of Structural Analysis*, McGraw Hill, 4th (2011) Edition

CV2013 / CV2301 ENGINEERING GEOLOGY & SOIL MECHANICS / SOIL MECHANICS

Text

Grotzinger, J. and Jordan, T. H. "Understanding Earth", Seventh Edition, W. H. Freeman, 2014.

Knappett, J.A. and Craig, R.F., "Craig's Soil Mechanics" 8th edition, Spon Press, 2012.

References

Coduto, D.P., Geotechnical Engineering: Principles and Practices, 2nd edition, Prentice-Hall, 2010

Holtz, R.D. and Kovacs W.D., An Introduction to Geotechnical Engineering, 2nd edition, Prentice Hall, 2011 (TA710.H758 2011)

Lutgens, F.K., Tarbuck, E.J. and Tasa D. Essentials of Geology, 11th edition, 2012, Prentice Hall.

CV2014 GEOTECHNICAL ENGINEERING

Text

Knappett, J.A. and Craig, R.F., "Craig's Soil Mechanics" 8th edition, Spon Press, 2012.

Reference

Coduto, D.P., Yeung, M.R., Kitch, W.A. (2011) Geotechnical Engineering: Principles and Practices, 2nd edition, Pearson.

Holtz, R.D., Kovacs, W.D., and Sheahan, T.C. (2011). *An Introduction to Geotechnical Engineering*, 2nd Edition, Pearson.

CV2015 HYDRAULICS

Text

To be decided by course lecturer

Reference

To be decided by course lecturer

CV2016 / CV2602 HYDROLOGY / WATER RESOURCES ENGINEERING

Text

Text 1 Warren Viessman, Jr; Gary L Lewis (2002), "Introduction to Hydrology", 5th edition, Pearson Education, Singapore.

Text 2 Finnemore, E.J. and Franzini, J.B. (2002) "Fluid Mechanics with Engineering Applications", International Edition, McGraw-Hill Book Company, Singapore.

References

Ref 1 Linsley, RK; Kohler, MA and Paulhus, JLH (1988) "Hydrology For Engineers", SI edition, McGraw-Hill Book Co, Singapore.

Ref 2 Linsley, RK; Franzini, JB; Freyberg, DL; Tchobanoglous, G (1992) "Water Resources Engineering", International edition, McGraw-Hill Book Co., Singapore.

Ref 3 Sturm, T., Open Channel Hydraulics, 2nd International edition, McGraw-Hill Book Company, 2010 (TC175.S936 2010)

Ref 4 Munson BR, Young DR and Okiishi, TH, Fundamentals of Fluid Mechanics, 6th International edition, John Wiley & Sons, 2010 (TA357.M969 2010)

Ref 5 Henderson, F. M. (1966) "Open Channel Flow", MacMillan Series in Civil Engineering, NY, USA.

CV2017/ CV2000 ESSENTIAL MATHEMATICS

Text

George B. Thomas, Maurice D. Weir and Joel Hass, Thomas' calculus, 12th edition, Addison-Wesley, 2010 (Call no: QA303.T456 2010)

Reference

Calter, P. A. and Calter, M. A., "Technical Calculus", Prentice-Hall, 1999.

CV2018 / CV2001 PROBABILITY AND STATISTICS / ENGINEERING PROBABILITY AND STATISTICS

Text

Devore, Jay L., Probability and Statistics for Engineering and the Sciences, 8th edition, Thomson/Brooks/Cole, 2012 (Call no: QA273.D511 2012)

Seymour Lipschutz and Marc Lipson, "Schaum's Outline of Theory and Problem of Probability", 2nd Edition, McGraw-Hill

References

Ang, Alfredo H.S. and Tang, Wilson H., Probability concepts in engineering: emphasis on applications in civil & environmental engineering, 2nd edition, Wiley, 2007 (TA340.A581P)

Milton, J. Susan and Arnold, Jesse C., "Introduction to Probability and Statistics: Principles and Applications for Engineering and the Computing Sciences", 4th Edition, McGraw-Hill, 2003. [TA330.M662 2003]

CV2019 / CV2002 MATRIX ALGEBRA & COMPUTATIONAL METHODS / COMPUTATIONAL METHODS

Text

Kreyszig E. , Advanced Engineering Mathematics, 10th edition, John Wiley & Sons, 2011. (Call no: QA401.K92 2011)

Chapra, SC and Canale, RP., Numerical Methods for Engineers, 6th edition, McGraw-Hill, 2010. (TA345.C467 2010)

References

Howard Anton and Chris Rorres, Elementary Linear Algebra with Supplementary Applications, 11th edition, John Wiley & Sons, 2014. (QA184.A634 2014)

James F. Epperson, "An Introduction to Numerical Methods and Analysis", 2nd edition, John Wiley & Sons, 2013. (QA297.E64 2013)

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EN0001 / CV2902 SUSTAINABILITY PRACTICES FOR URBAN AND MARINE ENVIRONMENT / ENGRG INNOVATION & DESIGN (ENE)

Text To be decided by course lecturer

Reference To be decided by course lecturer

EN1001 / EN2501 ENVIRONMENTAL CHEMISTRY

Text

Clair N. Sawyer, Perry L. McCarty and Gene F. Parkin, *Chemistry for environmental engineering*, 5th edition, McGraw-Hill, 2003 (Call no: QD31.2.S271 2003)

Reference

Benjamin, M.M. Water Chemistry. 2002. McGraw-Hill

Snoeyink, V.L. and Jenkins, D. 1980. Water Chemistry. Wiley

Gonick, L. and Criddle, C.S. 2005. The Cartoon Guide to Chemistry. Collins.

EN2001 ENVIRONMENTAL ISSUES IN A CHANGING WORLD

Reference

Challenged Earth: an overview of humanity's stewardship of Earth by Stephen F. Lincoln.

Clean, green and blue: Singapore's journey towards environmental and water sustainability by Tan Yong Soon with Lee Tung Jean, Karen Tan.

Sustainable infrastructure: the guide to green engineering and design by S. Bry Sarté

Introduction to Environmental Engineering by M. Davis and D. Cornwell, McGraw-Hill

EN2002 / EN2503 ENVIRONMENTAL BIOLOGY AND MICROBIOLOGY / ENVIRONMENTAL MICROBIOLOGY

Text

1. Volodymyr Ivanov Environmental microbiology for engineers CRC Press. 2010 ISBN: 978-1-4200-9234-9

2. Environmental Biotechnology. Handbook of Environmental Engineering, Volume 10. Humana 2010. 881 p. ISBN: 978-1-58829-166-0 (new)

3. Bitton G., *Wastewater Microbiology*, 4th edition, Wiley-Liss, 2011 (QR48.B624 2011)

4. Madigan, M.T, and Martinko, J.M. Brock, *Biology of Microorganisms*, 13th edition, Prentice Hall, 2012 (QR41.2.M182 2012)

Reference

Advanced Biological Treatment Processes

L.K. Wang, Lenox Institute of Water Technology, Lenox, MA; Krofta Engineering Corporation,

Lenox, MA; Zorex Corporation, Newtonville, NY, USA; N.K. Shamma, Krofta Engineering Corporation,

Lenox, MA, USA; Y.-T. Hung, Cleveland State University, Cleveland, OH, USA (Eds.)

Volume 9 ISBN 978-1-58829-360-2

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EN2003 / EN3502 WATER SUPPLY ENGINEERING

Text

Warren Viessman, *Water supply and pollution control*, 8th edition, Pearson/Prentice Hall, 2009 (Call no: TD345.V665 2009)

References

Walski, T.M., "Analysis of water distribution systems", Van Nostrand Reinhold Company, 1984. [TD481.W229]

Reynolds, T.D. and Richards, P.A., "Unit Operations and Processes in Environmental Engineering", 2nd edition, PWS Publishing Company, 1995. [TD430.R465]

Sincero A.P. and Sincero G.A., "Physico-Chemical Treatment of Water and Wastewater", CRC Press, 2003. [TD430.S615]