

NOTE: Please feel free to use the most recent edition of textbooks referenced in this list
NOTA : Utilisez l'édition la plus récente des manuels cités dans cette liste.

16-Civ-A1 Elementary Structural Analysis

Primary Reference:

Hibbeler, R. C. Structural Analysis. 8th edition. Prentice Hall, 2012. ISBN-10: 013257053X, ISBN-13: 9780132570534

Secondary References:

Leet, K. M. and Uang, C.-M. Fundamentals of Structural Analysis, 4th edition. McGraw-Hill, 2011. ISBN-13: 9780073401096

Kassimali, A. Structural Analysis, SI Edition, 4th Edition. Nelson, 2011. ISBN-10: 0495295671, ISBN-13: 978-0495295679

16-Civ-A2 Elementary Structural Design

Grondin, G. Y. and Kulak, G. L. Limit States Design in Structural Steel 9th Edition. Canadian Institute of Steel Construction, 2010. ISBN-13: 978-088811-157-9

Brezev, S. and Pao, J. Reinforced Concrete Design: A Practice Approach, 2nd Edition. Prentice-Hall, 2013. ISBN-10: 1256873845, ISBN-13: 9781256873846

Handbook of Steel Construction. Current edition. Canadian Institute of Steel Construction. <http://www.cisc-icca.ca>

Concrete Design Handbook. Current edition. Canadian Portland Cement Association. www.cement.ca

Wood Design Manual. Current edition. Canadian Wood Council. www.cwc.ca

Challaal, O. Structure en béton armé, 2^e édition. Presse de l'Université du Québec, 2012. ISBN-13: 978-2760533806

Calcul des charpentes d'acier, Tome 1. Edition actuelle. Institut Canadien de la construction en acier. <http://quebec.cisc-icca.ca/>

Manuel de calcul charpentes en bois. Edition actuelle. Conseil Canadien du bois. www.cwc.ca

16-Civ-A3 Elementary Environmental Engineering

Mines, R. and Lackey, L. Introduction to Environmental Engineering. Prentice Hall, 2010. ISBN-10: 0132347474, ISBN-13: 9780132347471

16-Civ-A4 Geotechnical Materials and Analysis

Budhu, M. Soil Mechanics and Foundations, 3rd edition. John Wiley and Sons, Inc., 2011. ISBN-13: 978-0-470-55684-9

Craig, R. F. Craig's Soil Mechanics, 8th Edition. CRC Press, 2012. ISBN-13: 9780415561266

Das, B.J. Principles of Geotechnical Engineering, 8th Edition. Nelson, 2014. ISBN-10: 1133108660, ISBN-13: 9781133108665

16-Civ-A5 Hydraulic Engineering

Finnermore, E. J. and Franzini, J. B., Fluid Mechanics with Engineering Applications, 10th Edition. McGraw-Hill Science, 2001.

Houghtalen, Robert and Osman Akan, A. and Hwang, Ned H. C. Fundamentals of Hydraulic Engineering Systems, 4th Edition. Prentice Hall, 2009.

16-Civ-A6 Highway Design, Construction, and Maintenance

Mannering, F. L. and Washburn, S. S. and Kilareski, W. P. Principles of Highway Engineering and Traffic Analysis, 4th Edition, Wiley, 2008.

Roess, R. P. and Prassas, E. S. and McShane, W. R. Traffic Engineering, 3rd Edition, Prentice Hall, 2004.

AASHTO Guide for Design of Pavement Structures. 4th Edition, American Association of State Highway and Transportation Officials (AASHTO), 1998.

The Asphalt Handbook. Manual Series # 4 (MS-4), Asphalt Institute, 2007. www.asphaltinstitute.org.

Geometric Design Standards for Canadian Roads. Roads and Transportation Association of Canada, Ottawa, 2011. www.tac-act.ca

Shahin, M.Y., Pavement Management for Airports, Roads and Parking Lots. 2nd Edition, Springer, 2006.

Handbook of Steel Drainage & Highway Construction Products. Corrugated Steel Pipe Institute, 2007. www.csipi.ca

16-Civ-B1 Advanced Structural Analysis

Primary Reference:

Hibbeler, R.C. Structural Analysis. 8th Edition. Prentice Hall, 2012. ISBN-10: 013257053X, ISBN-13: 9780132570534

Secondary References:

Leet, K.M. and Uang, C.M. Fundamentals of Structural Analysis. 4th Edition, McGraw-Hill, 2011

16-Civ-B2 Advanced Structural Design

Grondin, G. Y. and Kulak, G. L. Limit States Design in Structural Steel 9th Edition. Canadian Institute of Steel Construction, 2010. ISBN-13: 978-088811-157-9

Brezev, S. and Pao, J. Reinforced Concrete Design: A Practice Approach, 2nd Edition. Prentice-Hall, 2013. ISBN-10: 1256873845, ISBN-13: 9781256873846

Handbook of Steel Construction. Current edition. Canadian Institute of Steel Construction. <http://www.cisc-icca.ca>

Concrete Design Handbook. Current edition. Canadian Portland Cement Association. www.cement.ca

CAN/CSA-S6-06 Code canadien sur le calcul des ponts routiers

Design Manual. Current edition. Canadian Precast/Prestressed Concrete Institute.

Challaal, O. Structure en béton armé, 2^e édition. Presse de l'Université du Québec, 2012. ISBN-13: 978-2760533806

Calcul des charpentes d'acier, Tome 1. Edition actuelle. Institut Canadien de la construction en acier. <http://quebec.cisc-icca.ca/>

16-Civ-B3 Geotechnical Design

Budhu, M. Soil Mechanics and Foundations. 3rd Edition, John Wiley and Sons, Inc. 2010.

Craig, R. F. and Knappett, J. Craig' Soil Mechanics. 8th Edition, CRC Press, 2012.

16-Civ-B4 Engineering Hydrology

Fetter, C. W. Applied Hydrogeology, 4th Edition, Prentice Hall, 2000.

Domenico, P. A. and Schwartz, F. W. Physical And Chemical Hydrogeology, 2nd Edition, John Wiley & Sons, Inc. 1997.

16-Civ-B5 Water Supply and Wastewater Treatment

Shammas, N. K. and Wang, L. K. Fair, Geyer, and Okun's Water and Wastewater Engineering: Water Supply and Wastewater Removal, 3rd Edition, Wiley, October 2010.

American Water Work Association and American Society of Civil Engineers. Water Treatment Plant Design" 4th Edition, McGraw-Hill Professional, 2004.

Hammer, M. J. Sr. and Hammer, M. J. Jr. “Water and Wastewater Technology.” 6th Edition, Prentice Hall, 2007.

16-Civ-B6 Urban and Regional Planning

Hodge, G. and Gordon, D. Planning Canadian Communities. 5th Edition, Nelson College Indigenous, 2007. ISBN-10: 0176252428 , ISBN-13: 978-0176252427

Wang, X. and Hofe, R. V. Research Methods in Urban and Regional Planning. 1st Edition, Springer, 2007.

Levy, J. M. Contemporary Urban Planning, 10th edition, Prentice Hall, 2013. ISBN-10: 0205951627 ISBN-13: 9780205951628

Macionis, J. J. and Parrillo, V. N. Cities and Urban Life, 6th Edition, Pearson,2012.

16-Civ-B7 Transportation Planning and Engineering

Mannering, F. L. and Washburn, S. S. and Kilareski, W. P. Principles of Highway Engineering and Traffic Analysis, 4th Edition, Wiley, 2008.

Roess, R. P. and Prassas, E. S. and McShane, W. R. Traffic Engineering, 3rd Edition, Prentice Hall, 2004.

C.S. Papacostas, C. S. and Prevedouros, P. D. Transportation Engineering and Planning. 2nd Edition, Prentice-Hall, 2000.

Note: No available text, including the one recommended, adequately covers all topics in the Syllabus. Candidates will have to seek more depth on: “Deterministic” queuing theory; rail, air, water, and pipeline systems; accidents.

Fricker, J. D. and Whitford, R. K. Fundamentals of Transportation Engineering, 1st Edition, Pearson / Prentice Hall, 2004.

16-Civ-B8 Management of Construction

Knutson, K. and Schexnayder, C. and Fiori, C. and Mayo, R. Construction Management Fundamentals. 2nd Edition, McGraw-Hill, 2008.

Provincial Health and Safety Act, for the candidate’s jurisdiction.

16-Civ-B9 The Finite Element Method

Primary Reference:

Logan, D. L. A First Course in the Finite Element Method. 3rd Edition, Thomson Learning, 2011.

Secondary References:

Fish, J. and Belytschko, T. A First Course in the Finite Elements. Wiley, 2007.

Zienkiewicz, O. C. and Taylor, R. L. and Zhu, J. Z. The Finite Element Method: Its Basis and Fundamentals. 7th Edition, Butterworth-Heinemann, 2013.

16-Civ-B10 Traffic Engineering

Roess, R. P. and Prassas, E. S. and McShane, W. R. Traffic Engineering. 4th Edition, Prentice Hall, 2011.

Garber, N. J. and Hoel, L. A. Traffic and Highway Engineering. 3rd Edition, Thomson Learning, 2001.

Mannering, F. L. and Washburn, S. S. and Kilareski, W. P. Principles of Highway Engineering and Traffic Analysis. 4th Edition, Wiley, 2008.

16-Civ-B11 Structural Materials

Somayji, S. Civil Engineering Materials. Prentice Hall, 1995.

16-Civ-B12 Risk and Safety in Civil Engineering

Ang, A. H. and Tang, W. H. Probability Concepts in Engineering. 2nd Edition, Wiley, 2006.

Benjamin, J. R. and Cornell, C. A. Probability, Statistics and Decisions for Civil Engineers. McGraw-Hill Inc., 1970.

Jordaan. Decisions Under Uncertainty: Probabilistic Analysis for Engineering Decisions. 1st Edition, Cambridge University Press, 2011.

16-Civ- B13 Numerical Methods

Chapra, S. and Canale, R. Numerical Methods for Engineers 6th Edition, Mc-Graw-Hill, 2009.

16-Civ- B14 Open Channel Hydraulics

Chow, V.T. Open-Channel Hydraulics. Blackburn Press, 2009.

16-Civ- B15 Coastal Engineering

Sorensen, R. M. Basic Coastal Engineering. Springer, 2005.

Reeve, D. and Chawick, A. and Fleming, C. Coastal Engineering: Processes, Theory and Design Practice. 2nd edition, Taylor and Francis, 2012.

16-Civ- B16 Advanced Environmental Engineering

Mines, R. and Lackey, L. Introduction to Environmental Engineering. Prentice Hall, 2010. ISBN-10: 0132347474, ISBN-13: 9780132347471

Sarte, S. B. Sustainable Infrastructure: The Guide to Green Engineering and Design. Wiley, 2010.

Carroon, J. Sustainable Preservation: Greening Existing Buildings. Wiley, 2010.

Pearce, A. and Ahn, Y.H. Sustainable Buildings and Infrastructure: Paths to the Future. Routledge, 2012.

16-Civ-B17 Intelligent Transportations Systems

Cascetta, E. Transportation Systems Analysis: Models and Applications. 2nd Edition, Springer, 2009.

16-Civ-B18 Geomatics

Wolf, P. R. and Ghilani, C. D. Elementary Surveying: An Introduction to Geomatics. 13th Edition, Prentice Hall, 2010.

Chang, K.-T. Introduction to Geographic Information Systems. 6th Edition, McGraw Hill, 2011.

16-Civ-B19 Foundation Engineering

Canadian Geotechnical Society. Canadian Foundation Engineering Manual. 4th Edition, BiTech Publishers, 2006. www.cgs.ca

Das, B. M. Principles of Foundation Engineering. 7th Edition, Thomson-Engineering, 2007.

L. Reese, L. C. and Isenhower, W. M. and Wang, S.-T. Analysis and Design of Shallow and Deep Foundations. 1st Edition, Wiley, 2005.

Craig, R. F. Craig's Soil Mechanics, 8th Edition. CRC Press, 2012. ISBN-13: 9780415561266

16-Civ-B20 Building Engineering and Services

Chadderton, D. Building Services Engineering. 6th edition, Routledge, 2013. ISBN-13: 978415699310.

16-Civ-B21 Advanced Structural Mechanics

Hjelmstad, K. D. Fundamentals of Structural Mechanics. 2nd Edition, Springer, 2005.

Johnson, D. Advanced Structural Mechanics, 2nd edition, Thomas Telford, 2000. ISBN-13: 9780727728609.

16-Civ-B22 Dynamics of Engineering Structures*Primary Reference:*

Filiatrault, A. Tremblay, R. and Christopoulos, C. and Foltz, B. and Pettinga, D. Elements of Earthquake Engineering and Structural Dynamics, Presses Internationales Polytechnique, 3rd Edition, 2013. ISBN-13: 9782553016493.

Secondary References:

Chopra, A. K. Dynamics of Structures, Theory and Applications to Earthquake Engineering. 4th Edition, Prentice Hall, 2012.

Humar, J. L. Dynamics of Structures. 3rd Edition, CRC Press, 2012.

Paultre, P. Dynamique des structures, application aux ouvrages de génie civil. Hermès-Lavoisier, 2004.