

2016 PEO CIVIL ENGINEERING EXAMINATIONS TEXT BOOK REFERENCE LIST

NOTE: Please feel free to use the most recent edition of textbooks referenced in this list

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

16-Civ-A3 Municipal and Environmental Engineering

Shammas, N.K. and Wang, L.K. (2011) Water Supply and Wastewater Removal. 3rd ed. Wiley, Hoboken, N.J. ISBN 978-0-470-41192-6
Viessman and Hammar, Perez and Chadik Water Supply and Pollution Control, 8th Edition, Harper Collins College Publishers 1988, ISBN no. 0-13-233717-7

Brière, François G. (1999) Drinking-Water Distribution, Sewage, and Rainfall Collection, Presses internationale Polytechnique, École Polytechnique de Montréal. ISBN number: 2-55300-796-5

McGhee, T.J., Water Supply and Sewerage, 6th Edition, McGraw-Hill Publishing Co. ISBN # 0-07-060938-1, 1991

Metcalf & Eddy Inc., Wastewater Engineering: Collection and Pumping of Wastewater, McGraw-Hill Publishing Co. ISBN # 0-07-041680-X, 1981

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

Finnemore, 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

Brezey, 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.

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

2016 PEO CIVIL ENGINEERING EXAMINATIONS TEXT BOOK REFERENCE LIST

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.