

Suggested Text **1998 CCPE Civil Syllabus**

98-Civ-A1, Elementary Structural Analysis

Aslam Kassimali, Structural Analysis PWS Publishers Latest Edition ISBN # 0534950469

98-Civ-A2, Elementary Structural Design

Handbook of Steel Construction, Current Edition, Canadian Institute of Steel Construction

Concrete Design Handbook, Current Edition, Canadian Portland Cement Association

Wood Design Manual, Current Edition, Canadian Wood Council, Ottawa Tel: 613-247-7077

98-Civ-A3, Municipal Engineering

Viessman and Hammar, Water Supply and Pollution Control, 6th Edition, Harper Collins College Publishers ISBN # 0-321-01460-X, 1988

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

98-Civ-A4, Geotechnical Materials and Analysis

R.F. Craig, Soil Mechanics, 5th Edition, Chapman Hall

B.J. Das, Principles of Geotechnical Engineering, 4th Edition, PWS-Kent

98-Civ-A5, Hydraulic Engineering

R.L. Daugherty, J.B. Franzini and E.J. Finnermore, Fluid Mechanics with Engineering Applications, 8th Edition, McGraw-Hill, 1985 (omit chapters 5, 9, 16, and 17)

A suitable alternate text is:

V.L. Streeter, E.B. Wylie, Fluid Mechanics, SI Edition, McGraw-Hill, 1981 (omit chapter 6 on compressible flow) Note there may be a more recent version of this text if there is please use the latest edition.

98-Civ-A6, Transportation Planning and Engineering

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

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.

98-Civ-B1, Advanced Structural Analysis

Ghali & A.M. Neville, Structural Analysis, Chapman & Hall, 4th Edition, John Wiley & Sons, New York, 1998 (edited by Garas & Virdi).

98-Civ-B2, Advanced Structural Design

G.L. Kulak & M.I. Gilmore, Limit States Design in Structural Steel, 6th Edition, Canadian Institute of Steel Construction, 1998

Michel Bruneau, Chia-Ming Uang, Andrew Stuart Whittaker, Ductile Design of Steel Structures – McGraw Hill Co. 1998

Edward G. Nawy, Prestressed Concrete: A Fundamental Approach, 5th edition, Prentice Hall, 2005

C.K. Wang et al, Reinforced Concrete Design, 6th Edition, Harper and Row, 1998

Handbook of Steel Construction, 7th Edition, Canadian Institute of Steel Construction, 1997

98-Civ-B3, Geotechnical Design

B.M. Das, Principles of Geotechnical Engineering 4th edition ITP Nelson 1998 ISBN # 0-534-95179-1 (1-800-268-2222)

B.M. Das, Principles of Foundation Engineering 3rd Edition ITP Nelson 1995 ISBN # 0-534-20646-8 (1-800-268-2222)

R.F. Craig, Soil Mechanics, 5th or 6th Edition, Van Nostrand Reinhold (U.K.) Co. Ltd. Nelson Canada - ISBN # 0-412-39590-8 note both out of print

E.A. McBean, F.A. Rovers, G.J. Farquhar, Solid Waste Landfill Engineering and Design Prentice Hall PTR, 1995, ISBN 0-13-079187-3, Chapter 9, Chapter 10

R.M. Koemer, Designing with Geosynthetics, 3rd edition, Prentice Hall, 1994, ISBN 0-13-847823-6, Section 2.8 and chapters 5 and 6.

98-Civ-B4, Engineering Hydrology

Viessman, Knapp, Lewis & Harbaugh, Introduction to Hydrology, 2nd Edition, Harper Row (ISBN # 0-7002-24971)

Ven Te Chow, David R. Maidment & Larry W. Mays, Applied Hydrology, McGraw-Hill, 1988, ISBN # 0-07-010810-2

Ray K. Linsley & Joseph B. Franzini, Water Resources Engineering, 3rd Edition, McGraw-Hill, 1979, ISBN # 0-07-037965-3

98-Civ-B5, Water Supply and Wastewater Treatment

Viessman and Hammar, Water Supply and Pollution Control, 6th Edition, Harper Collins College Publishers ISBN # 0-321-01460-X, 1988

R.L. Droste, Theory and Practice of Water and Wastewater Treatment, J. Wiley and Sons Inc. New York, N.Y., 1997

98-Civ-B6, Urban and Regional Planning

Gerald Hodge and David Gordon, Planning Canadian Communities: An Introduction to the Principles, Practice and Participants, 5th Edition, Nelson Canada, Toronto, 2008.

John Sewell, The Shape of the City – Toronto Struggles with Modern Planning, University of Toronto, Toronto, 1993.

Frank S. So and Judith Getzels (eds.) The Practice of Local Government Planning, 2nd Edition, International City Management Association, Washington D.C., 1988 (available at reference libraries) Consider supplemental to the two primary texts above.

Note: It is recommended that candidates contact the local Municipal Planning Office in their area and review material similar to the Citizen's Guide to the Land Use Planning System in Ontario (see www.mah.gov.on.ca/business/guides/index-e.htm).

98-Civ-B7, Highway Engineering

Huang, Yang H. Pavement Analysis and Design, 1993, Prentice Hall, Englewood Cliffs, New Jersey

American Association of State Highway and Transportation Officials (AASHTO), 1993. AASHTO guide for design of pavement structures. Washington, D.C.

Asphalt Institute (1989). The Asphalt Handbook. Manual Series # 4 (MS-4), Lexington, Kentucky

Roads and Transportation Association of Canada, 1986, Manual of geometric design standards for Canadian roads. Roads and Transportation Association of Canada, Ottawa.

Haas, R, Hudson, W.R., and Zaniewski, J., 1994. Modern Pavement Management, Krieger Publishing Company, Malabar, Florida

Or

Shahin, M. Y., 1994, Pavement Management for Airports, Roads and Parking Lots, Chapman & Hall, New York

Note to candidates, the above listed textbooks are only suggested text. The list does not define or limit the syllabus.

98-Civ-B8, Management of Construction

Donald S. Barrie and Boyd C. Paulson Jr., Professional Construction Management, McGraw-Hill, 1991, ISBN # 0070038899

Ontario Health and Safety Act, Ontario Regulation 213/91 (Construction Projects), Queen's Printing of Ontario, May 10, 1991. The provincial legislation is quite similar in all provinces. The candidate should obtain the Health and Safety Act of their province for study.

98-Civ-B9, Applications of the Finite Element Method

R.D. Cook, D.S. Malkus, & M.E. Plasha, Concepts and Applications of Element Analysis, 3rd Ed., John Wiley & Sons, ISBN # 0-471-84788-7

98-Civ-B10, Traffic Engineering

Roess, McShane & Prassas, Traffic Engineering, 3rd Edition, Pearson/Prentice-Hall Polytechnic Series, 2004. ISBN # 0-131-42471-8

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