

**04-Geom-A1 - Surveying**

*Prime Texts:*

Anderson, M.J., and E.M. Mikhail, Surveying: Theory and Practice. McGraw Hill, (7<sup>th</sup> Edition), 1998.

Wolf, P.R., and C.D. Ghilani, Elementary Surveying. An Introduction to Geomatics. Prentice Hall, New Jersey (10<sup>th</sup> Edition), 2002.

*Supplementary Texts:*

Moffitt, F.H. and H. Bouchard, Surveying. 9<sup>th</sup> edition. Harper & Row Publishers, 1992. ISBN 0065000595.

Brinker, R.C. and P. Wolf, Elementary Surveying. 9<sup>th</sup> edition. Harper-Row, 1984. ISBN 0065003993.

Kissam, P., Surveying for Civil Engineers. 2<sup>nd</sup> edition. McGraw-Hill Book Co. Inc., 1981. ISBN 0070348820.

Kavanagh, B.F., Surveying Principles and Applications. Prentice Hall, New Jersey (6<sup>th</sup> Edition), 2003.

**04-Geom-A2 – Adjustment of Observations and Data Analysis**

*Prime Texts:*

Mikhail, E.M., Observations and Least-squares. Thomas Y. Crowell, New York, 1976.

Mikhail, E.D., and G. Gracie, Analysis & Adjustment of Survey Measurements. Van Nostrand Reinhold, 1981.

Wolf, P.R., and C.D. Ghilani, Adjustment Computations. John Wiley & Sons Inc., 1997, ISBN 0-471-16833-5.

*Supplementary Text:*

Krakiwsky, E.J. (Ed.), Papers for the CISM Adjustment and Analysis Seminars. 2nd edition. Canadian Institute of Geomatics, Ottawa, 1987.

**04-Geom-A3 – Geodesy and Positioning**

*Prime Text:*

Vanicek, P. and E.J. Krakiwsky, Geodesy: The Concepts, (Parts IV and V). E.J. North Holland Publishing Co., 1986. ISBN 0444877770.

*Supplementary Texts:*

Heiskanen W.A., and H. Moritz, Physical Geodesy. Technical University, Gratz (reprint), 1979.

Moritz, H., Advanced Physical Geodesy. Abacus Press, Tunbridge Wells, U.K, 1980.

Torge, W., Geodesy. Walter de Gruyter, Berlin (3rd Edition), 2001.

**04-Geom-A4 - Photogrammetry**

*Prime Texts:*

Mikhail E., J. Bethel, and J.C. McGlone, Introduction to modern photogrammetry. Wiley, 2001.

McGlone C. (Ed.), E. Mikhail & J. Bethel (Associate Editors), Manual of Photogrammetry. 5th Edition, Published by the American Society for Photogrammetry and Remote Sensing, 2004.

*Supplementary Texts:*

Schenk T., Digital photogrammetry. TerraScience, 1999.

Konecny G., Geoinformation: remote sensing, photogrammetry and geographic information systems. Taylor & Francis, 2003.

Ghosh S.K., Analytical Photogrammetry. 2nd ed, Pergamon Press, 1988.

Wolf P.R, and B.A. Dewitt, Elements of photogrammetry : with applications in GIS. 3rd ed, McGraw-Hill, 2000.

Kraus K., Photogrammetry, Vol 1 and 2. 4th rev. ed, Ferd. Dümmlers Verlag, 1993.

Ghosh S.K., Phototriangulation. Lexington Books, 1975.

**04-Geom-A5 – Remote Sensing and Image Analysis**

*Prime Texts:*

Lillesand T.M., and R.W. Kiefer, Remote sensing and image interpretation. 4th ed, John Wiley & Sons, 2000.

Ryerson R.A., (ed.), Manual of remote sensing. 3rd ed, Wiley, 1996.

*Supplementary Texts:*

Avery T.E., and G.L. Berlin, Fundamentals of remote sensing and airphoto interpretation. 5th ed, Maxwell Macmillan International, 1991.

Jensen J.R., Introductory digital image processing: a remote sensing perspective. 2nd ed Prentice Hall, 1996.

Richards J.A., and X. Jia, Remote sensing digital image analysis: an introduction. 3rd ed Springer, 1999.

Mather P.M., Computer processing of remotely-sensed images: an introduction. Wiley, 1988.

Schowengerdt R.A., Remote sensing - models and methods for image processing. 2nd ed, Academic Press, 1997.

Leberl F.W., Radargrammetric image processing. Artech House, 1989.

*French Textbooks:*

Bonn & Rochon, Précis de télédétection, volume 1: Principes et méthodes. Presses de l'Université du Québec, 1992.

Caloz & Collet, Précis de télédétection, volume 3: Traitements numériques d'images de télédétection. Presses de l'Université du Québec, 2001.

Girard & Girard, Traitement des données de télédétection. DUNOD, Paris, 1999.

Henri Maitre, Le traitement des images. Hermès Sciences, Paris, 2002.

**04-Geom-A6 - Cadastral Studies**

Teskey, W.F., T.C. Swanby, W.D. Usher, and A. Hittel, Cadastral Studies Lecture Notes. A Division of Surveying Engineering, University of Calgary, 1983.

Survey Law in Canada (Note: Now out of print, but approved photocopies may be obtained through the offices of the Canadian Council of Land Surveyors in Ottawa)

**04-Geom-A7 - Geospatial Information Systems**

*Prime Texts:*

Longley, P.A., M.F. Goodchild, D.J. Maguire, and D.W. Rhind, Geographic Information Systems and Science. Wiley Ed. ISBN 0-471-89275-0, 2001.

Date, C.J., Introduction to Database Systems. 8th edition. Addison-Wesley, Reading Mass., 2003. ISBN: 0321197844.

Groot R. and J. McLaughlin, (eds) Geospatial data infrastructure: concepts, cases, and good practice. Oxford University Press, 2000.

*Supplementary Texts*

Monmonier, M.S., Computer Assisted Cartography: Principles and Prospects. Prentice Hall, 1982.

Keates J.S., Cartographic Design and Production. 2nd edition. Halsted Press, 1989.

Robinson, A.H. et al., Elements of Cartography. 6th edition. John Wiley and Sons, 1995. ISBN 0471555797.

Maling, D.H., Coordinate Systems and Map Projections. 2nd edition. George Philip and Son Ltd., London, 1992. ISBN 0080372341.

Molenaar M., An introduction to the theory of spatial object modelling for GIS. Taylor & Francis, 1998.

Burrough P.A. and R.A. McDonnell, Principles of geographical information systems. University Press, 1997.

Kraak M.-J. and F. Ferjan Ormeling, Cartography : visualization of spatial data. Longman, 1996.

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Aronoff S., Geographic information systems: a management perspective. WDL Publications, 1989.

Goodchild M. and R. Jeansoulin (eds) Data quality in geographic information: from error to uncertainty. Hermès, 1998.

#### **04-Geom-B1 – Digital Terrain Modelling**

##### *Prime Texts:*

Petrie, G. and T. J. M. Kennie (edit). Terrain modelling in surveying and civil engineering. New York : McGraw-Hill, 1991.

Maune, D.F. (Editor). Digital Elevation Model Technologies and Applications, the DEM Users Manual. Published by the American Society for Photogrammetry & Remote Sensing, 2001.

##### *Supplementary Texts*

McGlone C. (Editor), E. Mikhail & J. Bethel (Associate Editors), Manual of Photogrammetry. 5th Edition, Published by the American Society for Photogrammetry and Remote Sensing, 2004.

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Leberl F.W., Radargrammetric image processing. Artech House, 1989.

Davis, John C., Statistics and data analysis in geology. New York, Wiley, 2nd ed , 1986.

Lodwick G.D., Digital Terrain Modelling. University of Calgary, Publication No. 10007, 1983.

#### **04-Geom-B2 – Satellite Navigation**

##### *Prime Text:*

Wells et. al., Guide to GPS Positioning. Canadian GPS Associates, Fredericton, N.B., 1986.

##### *Supplementary Texts:*

Torge, W., Geodesy. Walter de Gruyter. Berlin (3rd Edition), 2001.

Vanicek P. and E. Krakiwsky, Geodesy: The Concepts. North Holland, Amsterdam (2nd Edition). (Chapters 15 and 16), 1986.

Leick, A., GPS Satellite Surveying. 2nd edition. Wiley, 1995. ISBN 0471306266.

El-Rabbany, A., Introduction to GPS, the Global Positioning System. Artech House, Boston, 2002.

#### **04-Geom-B3 – Networks and Precise Engineering Surveys**

##### *Prime Texts:*

Anderson, M.J., and E.M. Mikhail, Surveying: Theory and Practice. McGraw-Hill, (7<sup>th</sup> Edition). 1998.

Kuang, S., Geodetic Network Analysis and Optimal Design: Concepts and Applications. Ann Arbor Press, Inc., Chelsea, Michigan, 1998.

Caspary, W.F., Concepts of Network and Deformation Analysis. Monograph 11, School of Surveying, The University of New South Wales, Kensington, N.S.W., Australia, 183 pp, 1988.

##### *Supplementary Texts:*

Teskey, W.F. (editor), Proceedings of 7<sup>th</sup> International FIG Symposium on Deformation Measurements and 6<sup>th</sup> Canadian Symposium on Mining Surveying. Canadian Institute of Geomatics, Ottawa, 1993.

Wolf, P.R. and C.D. Ghilani, Adjustment Computations. John Wiley & Sons Inc., 1997, ISBN 0-471-16833-5.

#### **04-Geom-B4 - Hydrography**

##### *Prime Text:*

Ingham, A.E. Hydrography for the Surveyor and Engineer. 3<sup>rd</sup> edition. Wiley, 1994. ISBN 0632029439.

##### *Supplementary Texts:*

Bowditch, N., American Practical Navigator, Volumes I and II. Topographic Centre, United States Defence Mapping Agency, 1976. ISBN 0403089948.

de Jong, C.D., G. Lachapelle, S. Skone, and I. Elema, Hydrography. Delft University Press, 2002.

Appleyard, S.F. et al., Marine Electronic Navigation, 2<sup>nd</sup> edition. Routledge & Kegan Paul, 1988.

Forrester, W. D., Canadian Tidal Manual. Department of Fisheries and Oceans, Canadian Hydrographic Service, 1983. ISBN 0660113414.

**04-Geom-B5 – Survey Law**

Ziff, Bruce, Principle of Property Law, 3rd edition, CARSWELL, 2000.

Survey Law in Canada (Note: Now out of print, but approved photocopies may be obtained through the offices of the Canadian Council of Land Surveyors in Ottawa)

**04-Geom-B6 – Land Use Planning and Environmental Management**

*Prime Texts:*

Chapin, F.S. and E.J. Kaiser, Urban Land Use Planning. 4<sup>th</sup> edition. University of Illinois Press, 1995. ISBN 0252021010.

Ratcliffe, J. An Introduction to Town and Country Planning. 2<sup>nd</sup> edition. Longwood Publication Group, 1984.

*Supplementary Texts:*

Lynch, Site Planning, 3<sup>rd</sup> edition. M.I.T. Press, 1984. ISBN 0262121069.

So, F.S. et al. (editors), The Practice of Local Government Planning, 2<sup>nd</sup> edition. Planners Press, 1988. (International City Management Association in cooperation with APA. ISBN 0873260775.