GEO 217 Hydrology, Ground Water and Geohazards
Reading list autumn 2018

Articles/Book chapters (Akademika book store)

Schwartz, FW & Zhang, H (2003). *Fundamentals of ground water*. John Wiley & sons, Inc. Chap. 1-4, 6, 8, 16, 19, 21, 22. (c. 300 p.)

Articles/Book chapters (litteraturkiosken.uib.no)

Smith, K (2013). Environmental Hazards: Assessing Risks and Reducing Disasters (6th ed.), Routledge, chap. 1 Hazard in the environment, p. 1-22. & chap. 11 Hydrological hazards: floods, p. 299-336. (c. 50 p.)

Articles accessible from the internet (oria.no)

Borga, M, Stoffel, M, Marchi, L, Marra, F & Jakob, M (2014). Hydrogeomorphic response to extreme rainfall in headwater systems: Flash floods and debris flows. *Journal of Hydrology*, 518, p. 194-205. (11 p.) https://doi.org/10.1016/j.jhydrol.2014.05.022

Hegerl, GC, Hanlon, H & Beierkuhnlein, C (2011). Climate science: Elusive extremes. *Nature Geoscience,* 4(3)**,** p. 142. (2 p.) https://doi.org/10.1038/ngeo1090

Hering, D, et al. (2010). The European Water Framework Directive at the age of 10: A critical review of the achievements with recommendations for the future. *Science of The Total Environment,* 408(19)**,** p. 4007-4019. (12 p.) https://doi.org/10.1016/j.scitotenv.2010.05.031

Hungr, O, Leroueil, S, Picarelli, L (2014). The Varnes classification of landslide types, an update. *Landslides*, 11(2), 167-194. (27 p.) https://doi.org/10.1007/s10346-013-0436-y

Krøgli, IK, Devoli, G, Colleuille, H, Boje, S, Sund, M, Engen, IK (2018). The Norwegian forecasting and warning service for rainfall- and snowmelt-induced landslides. *Natural Hazards Earth System Science*, 18, 1427-1450. (23 p.) https://doi.org/10.5194/nhess-18-1427-2018

Montgomery, D. R. & Buffington, J. M. (1997). Channel-reach morphology in mountain drainage basins. *GSA Bulletin*, 109(5), s. 596-611. (15 p.) https://doi.org/10.1130/0016-7606(1997)109<0596:CRMIMD>2.3.CO;2

Schirmer, M, Leschik, S & Musolff, A (2013). Current research in urban hydrogeology - A review. *Advances in Water Resources,* 51, p. 280-291. (11 p.) https://doi.org/10.1016/j.advwatres.2012.06.015

Støren, EN, Kolstad, EW & Paasche, Ø (2012). Linking past flood frequencies in Norway to regional atmospheric circulation anomalies. *Journal of Quaternary Science*, 27(1), p.71-80. (10 p.) https://doi.org/10.1002/jqs.1520

Reports accessible from the internet

Hanssen-Bauer, I, Førland, EJ, Haddeland, I, Hisdal, H, Mayer, S, Nesje, A, Nilsen, JEØ, Sandven, S, Sandø, S, Sorteberg, A & Ådlandsvik, B (2017). Climate in Norway 2100 – a knowledge base for climate adaptation. (English summary, 47 p.) http://www.miljodirektoratet.no/Documents/publikasjoner/M741/M741.pdf

IPCC (2013). Summary for policymakers. https://www.ipcc.ch/pdf/assessment-report/ar5/wg1/WGIAR5_SPM_brochure_en.pdf (30 p.)

NIFS (2015). *Terminologi for naturfare*. Naturfareprosjektet, NIFS report 90. http://publikasjoner.nve.no/rapport/2015/rapport2015_90.pdf

Recommended readings

Articles/Book chapters (litteraturkiosken.uib.no)

Anderson, RS & Anderson, SP, 2010: *Geomorphology – The mechanics and chemistry of landscapes*. Cambridge University press. Chap. 11. Water in the landscape, p. 348-378.

O'Connor, JE, Grant, GE & Costa, JE (2002) *The geology and geography of floods*. In: House, PK, et al. (eds.) Ancient floods, modern hazard: principles and applications of paleoflood hydrology. Washington, DC, American Geophysical Union, p. 359-385.

Books (available at the library)

Bugge, HC (2015) *Lærebok i miljøforvaltningsrett*, 4. utg. Universitetsforlaget. Kap. 10 Miljøhensyn i vassdragsforvaltning s. 310-334. (In Norwegian)

Bye, LM, Lein, H & Rød, JK (eds.) (2013) *Mot en farligere fremtid? Om klimaendringer, sårbarhet og tilpasning i Norge,* Trondheim, Akademika forlag. Chap. 1-6. (In Norwegian)

Davie, T., 2008. *Fundamentals of hydrology*. Routledge Fundamentals of physical geography. Routledge, New York.

House, PK, Webb, RH, Baker, VR & Levish, DR (eds.) (2002) Ancient floods, modern hazards: Principles and applications of paleoflood hydrology. Washington, DC, American Geophysical Union

Articles accessible from the internet (oria.no)

Gariano, SL, Guzzetti, F (2016). Landslides in a changing climate. *Earth-Science Reviews*, 162, 227-252. (25 p.) https://doi.org/10.1016/j.earscirev.2016.08.011

Students choose additional literature with relevance for their projects.