Reading for lab on absorption, attenuation and scattering:

Roesler, C.S. and E. Boss, 2008. In situ measurement of the inherent optical properties (IOPs) and potential for harmful algal bloom detection and coastal ecosystem observations. In: Real-Time Coastal Observing Systems for Ecosystem Dynamics and Harmful Algal Bloom, M. Babin, C.S. Roesler and J.J. Cullen, eds. UNESCO Publishing, Paris, France. (chapter attached on web site).

Additional readings for those who want to get somewhat deeper:

Bricaud, A., Babin, M., Morel, A. and H. Claustre (1995). Variability in the chlorophyll-specific absorption coefficient of natural phytoplankton : analysis and parametrization. Journal of Geophysical Research, 100, C7, 13321-13332.
http://www.obs-vlfr.fr/LOV/OMT/fichiers_PDF/Bricaud_et_al_JGR_95.pdf

Slade, W.H, E. Boss, G. Dall'Olmo, M.R. Langner, J. Loftin, M.J. Behrenfeld, C. Roesler, and T.K. Westberry, 2010. Underway and moored methods for improving accuray in measurement of spectral particulate absorption and attenuation. Journal of Atmospheric and Oceanic Technology, 27:10, 1733-1746.
http://misclab.umeoce.maine.edu/documents/Sladeetal2010JTECH.pdf

Stramski, D., E. Boss, D. Bogucki, and K.J. Voss, 2004. The role of seawater constituents in light backscattering in the ocean. Progress in Oceanography, 61(1), 27-55.
http://misclab.umeoce.maine.edu/documents/stramskietal2004.pdf

A shorter paper on the subject including comparison to other measurements:
Boss, E., D. Stramski, T. Bergmann, W.S. Pegau, and M. Lewis, 2004. Why Should We Measure the Optical Backscattering Coefficient? Oceanography 17(2), 44-49.
http://misclab.umeoce.maine.edu/documents/ocean_17.2_boss_lo.pdf