

**STRATIGRAPHY 5-311,
3 CREDITS, SPRING 2009**

Instructor: Dan Lehrmann, Office: H-315. Office hours 8:00-9:00 & 10:20-11:20 MWF; You are also welcome to visit me any other time you can catch me. I'm usually available during the school day outside of my class times.

Class Hours: 1:50-2:50 MW, 11:30 - 1:40 R; H-217.

Grades: Grades will be assigned according to: **A**) 3 hour exams which each count toward 1/6th of your grade, **B**) the average of laboratory exercise scores which makes up 1/6th of your grade, and **B**) a term paper which makes up 1/3rd of your grade. Letter grades will be assigned according to the following averages: A (100 - 90 %), A-B (89 - 85 %), B (84 - 80 %); B-C (79 - 75 %), C (74 - 70 %); C-D (69 - 65 %); D (64 - 60 %), F (< 60 %). Participation is of utmost importance, I reserve the right to adjust grades as I see based on my impression of you participation and motivation in completing the coursework (see conduct clause below).

Course schedule (*see study guide*):

2-4 to 3-4	Fundamental Controls on Sedimentation and Basin Evolution.	Exam 3-2
3-6 to 4-10	Depositional Environments and Facies Models.	Exam 4-13
4-15 to 5-15	Advanced Stratigraphic Concepts	Exam 5-11

Research Paper Deadlines: Outline and reference list {2-26}; First Draft {4-2}; Final Draft {4-30}.

Conduct: I will not tolerate anyone "goofing off" "horsing around" or disregarding course material during lab periods! Failure to take subject matter seriously or any other disruptive conduct will result in a warning and/ or issue of a reduced or failing grade.

Textbook:

Walker, R. G., and James, N. P., 1992, Facies Models: Geo - Text 1, Geological Association of Canada, St. John's, Newfoundland, 454 p.

Other Materials: (* includes assigned readings in study guide; books on reserve at library)

*Boggs, S. Jr., 2006, Principles of Sedimentology and Stratigraphy, 4th ed., Prentice Hall, Englewood Cliffs, New Jersey, 726 p.

Emery D. and Meyers, K. J., 1996, Sequence Stratigraphy, Blackwell Science, Oxford, 295 p.

Goldhammer, R. K., Dunn, P. A., and Hardie, 1990, Depositional cycles, composite sea-level changes, cycle stacking patterns, and the hierarchy of stratigraphic forcing: Examples from Alpine Triassic platform carbonates: Geological Society of America Bulletin, v. 102, p. 535-562.

*Miall, A. D., 1990, Principles of Basin Analysis, 2nd ed.: Springer Verlag, New York, 668 p.

Ostrom, M. E., 1970, Sedimentation cycles in the Lower Paleozoic rocks of western Wisconsin, *in*, Ostrom, M. E., Davis, R. A., and Cline, L. M., Field trip guide book for Cambrian-Ordovician geology of western Wisconsin Geological and Natural History Museum, the University of Wisconsin, p. 10 - 34.

Payton, C. E., ed., 1977, Seismic stratigraphy - applications to hydrocarbon exploration; American Association of Petroleum Geologists, Memoir 26, 516 p.

Salvador, A., 1994, International stratigraphic guide; a guide to stratigraphic classification, terminology, and procedure, 2nd. Ed; International Union of Geological Sciences, Trondheim, Norway - Geological society of

America, U. S., 214 p.

Scholle, P. A., and Spearing, D., eds., 1982, Sandstone Depositional Environments, American Association of Petroleum Geologists, Memoir 31, 410 p.

Scholle, P. A., Bebout, D. G., and Moore, C. H., eds., 1988, Carbonate Depositional Environments; American Association of Petroleum Geologists, Memoir 33, 704 p.

Van Wagoner, J. C., Posamentier, H. W., Mitchum, R. M., Vail, P. R., Sarg, J. F., Loutit, T. S., and Hardenbol, J., 1988, An overview of the fundamentals of sequence stratigraphy and key definitions, *in* Wilgus, C. K., et al., Sea-level Changes An Integrated Approach, Society of Economic Petrologists and Mineralogists, Special Publication 42, p. 38-45.

Laboratory exercises: Laboratory exercises will generally be due within one week of when they are handed out in lab. Your lab grade will be calculated as the average of exercise scores and will make up one-sixth of your overall course grade. A tentative schedule of laboratory exercises is provided in the attached study guide and course calendar.

Field Trips: We will have required field trips to Ripon Friday afternoon April 18th followed by a weekend field trip (May 2-3) to interpret Lower Paleozoic strata of Winnebago, Outagamie, Brown, and Door counties.

Research paper: This is a writing emphasis course. A 10 page research paper is required and represents one third of the grade. Deadlines for the paper include: 1) outline and list of references, Feb 26; 2) first draft; April 2, and 3) final draft; April-30th. Substandard work that is not suitable for submission will be immediately returned without a grade. Deadlines are DEADLINES. Missing any deadline will result grade being reduced one letter grade for each day it is late.