

Course **GST 200: Quantitative Reasoning.** Obtaining a Pass or at least a 2.0 satisfies the Quantitative Foundation (QF) and Application (QA) graduation skill requirements.

Class Weekend College: Spring 2008-2009. Sun. 1-5. Oren Gateway Bldg., Room 113  
Instructor Milo Schield, 612-330-1153, Memorial 314 [Schield@augsborg.edu](mailto:Schield@augsborg.edu)

Materials: "*Statistical Literacy 2007*" textbook at bookstore (\$50).  
Web reading and writing drill programs at [www.StatLit.org/GC/](http://www.StatLit.org/GC/)

Course Goal: To help students read and interpret statistics found in tables, graphs and essays as evidence in arguments. To distinguish statistical associations from causal connections. To note the potential influence of confounding in observational studies.

Course topics: Analyze arguments using statistics as evidence (Ch 1&2), read and interpret measurements (Ch 3), describe percentages (Ch 4) and comparisons (Ch 5).

Essay Analysis Analyzing articles from the media is a key component of statistical literacy. This involves "hypothetical thinking": critical [creative] thinking outside the story about what might be influencing the size of the statistics or the size of their association.

Data Analysis Student project: students identify three related survey questions and specify the distribution of the answers: a binary outcome plus a predictor and confounder (both continuous). They define how to translate the continuous data into binary factors (assembly). Given summary tables of counts based on a random sample, students form percentages which they will describe and adjust for the influence of a confounder.

Grade Components

- \* 24% for Moodle homework (4 chapters; 6% each). Include Ch 5 with Ch 4.
- \* 24% for quizzes (Four quizzes at 6% each). Online. Due 3 PM Sunday.
- \* 2% for attendance, class participation and improvement on the final.
- \* 10% for data analysis projects (First at 2%, second at 8%)
- \* 40% Final In class. Ch. 1-5 (30%) that is heaviest on writing in Ch 2 & 4
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Course Mathematics All homework and quizzes are in Moodle. You must have Moodle access.

Papers Math level is arithmetic and algebra 1. Most formulas are given.

Quiz & Test Quizzes are on-line, closed book, but using review sheets is OK.

Final is not timed but is CLOSED book. Review sheet & calculator are OK.

#	Date	SCHEDULE: Textbook	Assign	Quiz	Project Data
0		Read Chapter 1			
1	4/05	Intro. Present Ch 1, Analyze stories	Ch 1		
2	4/19	Ch 2 Take Care. Analyze stories	Ch 2	Ch 1	
3	5/10	Ch 3 Measures/Standardizing 106-168	Ch 3	Ch 2	
4	*5/17*	Ch 4 Percents & percentages 188-217	Ch 4	Ch 3	Data 1
5	5/31	Ch 5 Cases Attributed: 235-242	Ch 5		P1
6	*6/07*	Project and review		Ch 5	P2: A, B, C
7	6/21	<b>Final Ch 1-5.</b> Analyze data, essay		<b>ALL</b>	<b>DATA</b>