

School for New Learning Course Syllabus

LL205 Quantitative Reasoning

Summer 2018

Instructor: John Hemmerling

Location: Loop Campus

Dates: This class will meet on alternating Thursdays starting June 24. Our last class meeting will be August 16. This class is a hybrid so there will be a substantial amount of work done online. The first discussion assignments will start June 17.

This class covers the Quantitative Reasoning requirement in all the BA in Professional Studies programs. For students in the BA with an Individualized Focus Area, the following competence is offered:

Competence	Competence Statement
L6	Can use mathematical symbols, concepts, and methods to describe and solve problems.

Course Description

This course provides an introduction to various topics in quantitative reasoning that most adults will be exposed to throughout their university course work, their careers and their daily lives. The assignments are designed to help students effectively handle these topics. We will cover different approaches to problem solving, how numbers are used in the real world, how to manage your personal finances, basic concepts in statistics and how they are applied in everyday settings. Scientific calculators and the Excel spreadsheet program will be used as tools for exploring algebraic and statistical concepts. Excel spreadsheets and charts are used extensively to illustrate graphically how to display, analyze and interpret data. Using mathematical models to understand real-world phenomena and to make predictions is an important component of the course. Quantitative reasoning will be a large part of the class discussion.

Specific Learning Outcomes

By the end of this class, students will be able to:

- Use units of measurement to solve problems and check answers.
- Apply a general set of guidelines and hints for effective problem solving.
- Use percentages and understand how they can be abused.
- Understand how to put very large and small numbers into perspective.
- Deal more effectively with uncertainty.
- Understand how errors can affect measured numbers.
- Critique how numbers may be deceiving.
- Understand basic probability.
- Understand the power of compound interest.
- Make informed decisions when comparing investment plans, savings plans and loan payments.

- Use various financial calculators to analyze investment plans, savings plans and loan payments.
- Understand the statistics that appear daily in newspapers, on TV and in magazine articles.
- Use Excel to manipulate, analyze and display data as pie charts, bar charts, maps and line graphs.
- Improve your critical thinking skills to more effectively interpret graphs.
- Appreciate more deeply how critical quantitative reasoning skills are to your survival to navigating a world exploding with numerical data.

Course Curriculum

Module	Text Chapter	Text Chapter Description	Assessment			Time (weeks)
			Class Discussions	Excel Projects	Quizzes	
1	2	Approaches to Problem Solving	1.3 Introductions 1.4 Class Discussion: Discovering the numbers around us 1.5 Group Discussion: Numbers in Pictures	1.2 Excel Charting Project	Module 1	2
2	3	Numbers in the Real World	2.3 Class Discussion: Poverty Level in the US in Absolute and Relative terms 2.4 Group Discussion: Income taxes: What is our "fair share"?	2.2 The Consumer Price Index Project	Module 2	2
3	5	Statistical Reasoning	3.3 Class Discussion: Graphics in Media Class Discussion	3.2 The Statistical Reasoning Project	Module 3	2
4	6	Probability	4.3 Class Discussion: Probability in Illinois State Gaming Discussion	4.2 How Probability Funds State Governments Project	Module 4	2
5	4	Financial Management	5.3 Class Discussion: Understanding the US Federal Government Budget 5.4 Group Discussion: How much money do you need to retire?	5.2 Financial Management Project	Module 5	2

Evaluation & Grading Policy: Grades are based on quizzes, projects and class participation.

Quizzes	Projects	Attendance/Class Participation
There are 5 quizzes worth 30%	There are 6 projects worth 50%	There are 11 discussions worth 20%

A = 95 to 100%	A- = 91 to 94%	B+ = 88 to 90%
B = 85 to 87%	B- = 81 to 84%	C+ = 77 to 80%
C = 73 to 76%	C- = 69 to 72%	D+ = 65 to 68%
D = 61 to 64%	F = 60% or below	INC

Any grade lower than C- is unacceptable for the SNL program. Students can opt for a Pass/Fail grade but must earn a 70% or higher to receive the passing grade. A passing grade does not factor into a student's GPA but a failing grade does.

Attendance

Attendance is important and mandatory. Students are expected to arrive on time, and to participate in every scheduled class session. Students must take the module quizzes online. There will be a 7 to 10 day window to take each quiz up to three times. The quiz will not be available after the window closes. They cannot be made up. Missing class makes assessment a difficult process, and all students who miss any class work are subject to grade reduction. Missing more than two classes (or 6 hours of class time) can result in a Failing Grade for the quarter.

Required Text Book

Pearson Custom Mathematics-Quantitative Reasoning
with: **My Math Lab Student Access Kit (MML SAK)**

ISBN: 9781323819388

This text has a supporting website that we will use extensively in this class. You must purchase the book and MML Student Access Kit to gain access to this website. You have two options to do this.

Option 1

You can purchase a new textbook which comes packaged with the MyMathLab access code. Textbook + MyMathLab purchase through the DePaul bookstore. You must purchase a book from DePaul Bookstore for this option.

Option 2

With this option you do not get a hard copy textbook. All students have access to the My Math Lab website for 3 weeks after the class starts. Students log into MML through <https://mylabsplus.depaul.edu>

Students select the option to purchase an access code and get their access code immediately.

There are two main differences between the two options. The first difference is cost. The second difference is that Option 2 will provide you with an electronic version of the text, but no hard copy. However, you can print whatever you need from the electronic text. Option 1 provides you with a hard copy of the text, as well as an electronic text. If you are comfortable using only an electronic text book, then do option 2.

Extra Help: To be discussed in class.

Policies

This course includes and adheres to the college and university policies described in the links below:

[Academic Integrity Policy \(UGRAD\)](#)

[Incomplete Policy](#)

[Course Withdrawal Timelines and Grade/Fee Consequences](#)

[Accommodations Based on the Impact of a Disability](#)

[Protection of Human Research Participants](#)

Other Student Resources

[University Center for Writing-based Learning](#)

[SNL Writing Guide](#)

[Dean of Students Office](#)

Instructor Bio

John Hemmerling began his career with SNL as an academic advisor in 1992. He began teaching courses at SNL in 1997 and has been nominated for an excellence in teaching award two times. He has a BS in Mathematics (Chicago State) and a MA in Math Education (DePaul).

Description of Pass/Fail Grading Options

Students have the option of taking all SNL undergraduate courses as Pass/Fail even if a class is initially structured for a letter grade assessment. In these cases a Pass is awarded when competence is demonstrated at a level that would otherwise earn a grade of C- or higher.

In deciding to select Pass/Fail grading students should be aware that competencies assessed in a course as Pass **will earn credit hours toward degree completion but *will not* be included in computing grade point averages**. Attempted competence demonstration assessed within a class as Fail will not only be recorded as credit hours attempted but ***will also be included in computing a student's grade point average***.

For SNL students, competencies awarded for Independent Learning Pursuits and in the Lifelong Learning Domain do not count toward the university's specification that only twenty credit hours may be earned through the Pass/Fail assessment option.

If a student wants to switch the method of assessment, either to or from the Pass/Fail option, this must be requested from the instructor in writing by the beginning of the third week of the quarter. For courses that meet fewer than ten weeks of the quarter, this request must be made by the beginning of the third week of the *course*. The grading basis may not be changed after these deadlines, with no exceptions.