Competence Offered: L-6 Can use mathematical symbols, concepts and methods to describe and solve problems (4 credit hours)

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 and how to more effectively handle these topics. It covers different approaches to problem solving, how numbers are used in the real world, how to manage your personal finances, basic concepts in statistics and probability 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 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.
- Understand linear and exponential growth.
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

<table>
<thead>
<tr>
<th>Module</th>
<th>Text Chapter Description</th>
<th>Assessments</th>
<th>Time (weeks)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Approaches to Problem Solving</td>
<td>Data and Graphs in Everyday Life</td>
<td>Charting</td>
</tr>
<tr>
<td>2</td>
<td>Numbers in the Real World</td>
<td>Everyday Use of Percentages</td>
<td>US Poverty Level</td>
</tr>
<tr>
<td>3</td>
<td>Statistical Reasoning</td>
<td>The Influence of Statistics on Your Life</td>
<td>Exact Linear Tables</td>
</tr>
<tr>
<td>4</td>
<td>Financial Management</td>
<td>Major Purchases in Your Life</td>
<td>Financial Management</td>
</tr>
<tr>
<td>5</td>
<td>Probability: Living with Odds</td>
<td>Consumer Price Index (if time permits)</td>
<td>In class Excel practice</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Homework Assignments</th>
<th>Quizzes</th>
<th>Projects</th>
<th>Attendance/Class Participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>There are 5 Online HWs 30%</td>
<td>There are 5 quizzes 30%</td>
<td>There are 3-4 projects 30%</td>
<td>In Class Group Exercises 10%</td>
</tr>
</tbody>
</table>

Grading Scale

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>A</td>
<td>93% - 100%</td>
</tr>
<tr>
<td>A-</td>
<td>90% - 92%</td>
</tr>
<tr>
<td>B+</td>
<td>87% - 89%</td>
</tr>
<tr>
<td>B</td>
<td>80% - 86%</td>
</tr>
<tr>
<td>C</td>
<td>70% - 79%</td>
</tr>
<tr>
<td>D</td>
<td>60% - 69%</td>
</tr>
<tr>
<td>F</td>
<td>Less than 60%</td>
</tr>
</tbody>
</table>

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

Using and Understanding Mathematics: A Quantitative Reasoning Approach, 6/E
Jeffrey O. Bennett, University of Colorado, BoulderWilliam L Briggs

ISBN-10: 0321914627

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 online at http://www.mbsdirect.net/search.php
Enter the School name, Click on DePaul University, Click on Order my Book, select the term, select the SNLONLINE, and then select Quantitative Reasoning.

or through the DePaul bookstore.
Students can get next day shipping on their textbook/access code purchase through the publisher.

Option 2
Purchase a used copy of the text from the DePaul book store or an independent source such as amazon.com, borders.com, etc., and then purchase the MyMathLab access code as in Option 3.

Option 3
With this option you do not get a hard copy textbook. You can go to the MyMathLab Website to purchase SAK online at http://www.pearsonmylabandmastering.com/northamerica/?ccstudent_register.html
You will save almost 45%

IMPORTANT: To start a quick registration for MyMathLab, Please login to http://mylabsplus.depaul.edu using your campus connect credentials and then obtain a TEMPORARY access code (good ONLY for 21 days) until you purchase your own student access kit.

This is a short video tour of MyMathsLabsPlus and shows you how to access the site from within D2L. https://www.softchalkcloud.com/lesson/serve/CANT2SDJdp34x9/html
There are two main differences between the three options. The first difference is cost. Option 2 will be less expensive than Option 1 and Option 3 is the least expensive. The second difference is that Option 3 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. Options 1 and 2 provide 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 3.

Policies

Academic Integrity
DePaul University is a learning community that fosters the pursuit of knowledge and the transmission of ideas within a context that emphasizes a sense of responsibility for oneself, for others and for society at large. Violations of academic integrity, in any of their forms, are, therefore, detrimental to the values of DePaul, to the students’ own development as responsible members of society, and to the pursuit of knowledge and the transmission of ideas. Violations include but are not limited to the following categories: cheating; plagiarism; fabrication; falsification or sabotage of research data; destruction or misuse of the university’s academic resources; alteration or falsification of academic records; and academic misconduct. Conduct that is punishable under the Academic Integrity Policy could result in additional disciplinary actions by other university officials and possible civil or criminal prosecution. Please refer to your Student Handbook or visit http://studentaffairs.depaul.edu/homehandbook.html for further details.

Plagiarism:
Plagiarism is a major form of academic dishonesty involving the presentation of the work of another as one’s own. Plagiarism includes but is not limited to the following: The direct copying of any source, such as written and verbal material, computer files, audio disks, video programs or musical scores, whether published or unpublished, in whole or part, without proper acknowledgement that it is someone else's.

Copying of any source in whole or part with only minor changes in wording or syntax, even with acknowledgement. Submitting as one's own work a report, examination paper, computer file, lab report or other assignment that has been prepared by someone else. This includes research papers purchased from any other person or agency. The paraphrasing of another's work or ideas without proper acknowledgement. Plagiarism, like other forms of academic dishonesty, is always a serious matter. If a instructor finds that a student has plagiarized, the appropriate penalty is at the instructor's discretion.

Disability Accommodations
Reasonable accommodations will be provided for students with disabilities on an individualized and flexible basis. The Office of Students with Disabilities (OSD) determines appropriate accommodations through consultation with the student. For certain learning disabilities and/or attention deficit disorders, the Productive Learning Strategies Program (PLuS) determines the appropriate accommodations. See the instructor for more information or call OSD at 773-325-7290 (phone) or 773-325-7296 (TTY); or call PLuS at 773-325-1677.
Incomplete Grades

The intent of the incomplete grade is to allow students extra time to complete their final assignments. This need arises because, in the closing weeks of the course, they have an event of significant magnitude that adversely affects their ability to complete the course, e.g. serious illness, death in the family, overseas deployment, or natural disaster. You must request an incomplete grade in writing two weeks before the end of the quarter. Incomplete grades will be considered only after you have satisfactorily completed at least 75 percent of the coursework, and you have such an unexpected, uncontrollable event that prevents you from completing your course. Do not assume that you will qualify for an incomplete. Students who are failing the course at the point where they request an incomplete will not receive one, nor will they be granted after the end of the quarter. Incomplete grades are given at the discretion of the instructor. If you do receive permission from the instructor to take an incomplete in the course, you will be required to complete a contract with the instructor, specifying how you will finish the missing work within the next two quarters (excluding summer). Incompletes not finished by the end of the second quarter (excluding summer) will automatically become an F grade on your transcript. Instructors may not change incomplete grades after the end of the grace period without the permission of a college-based Exceptions Committee.

NOTE: In the case of a student who has applied for graduation and who has been approved for an Incomplete in his or her final term, the incomplete must be resolved within the four week grace period before final degree certification.

Protection of Human Subjects

For more information see: http://research.depaul.edu/ Demonstrating the acquisition of competences in this course can involve “interactions”–interviewing and or observing other people–discussing those interviews or observations with other class members and writing them up in one or more final report(s). As such, these activities qualify as “research” with “human subjects” and are subject to University and Federal guidelines. Because it takes place in the context of this course, your research is exempt from approval by the School for New Learning’s Local Review Board only under the following conditions: The information you collect is EXCLUSIVELY for the purpose of classroom discussion and will NOT be used.