BUSI 520, Quantitative Analysis for Decision-Making, Syllabus
(3 credits)

COURSE DESCRIPTION

This course approaches statistics from a practical perspective. Students learn to utilize commercially available statistical software to manipulate and analyze data, and to interpret the results for relevant business applications. By the end of the course, students can select appropriate tools for analysis and conduct multiple statistical tests, such as descriptive statistics, hypothesis tests, Chi Square tests, linear and multiple regression, t-tests, and control charts.

REQUIRED TEXTS & RESOURCES

BUSI 520 Quantitative Analysis for Decision-Making

Anderson, David R., Sweeney, Dennis J., Williams, Thomas A., Camm, Jeffrey D, and Cochran, James J. Quantitative Methods for Business. 13th ed. New York: Cengage Learning, 2015. Print. ISBN: ISBN-13: 978-1285866314

 Recommended: Analytic Software package provided by Cengage Learning. Instructions for downloading are attached.

NEEDED FOR BUSI 520

Analytic Solver Platform for Education www.solver.com/aspe

Your new textbook, Quantitative Methods for Business, 13e, uses this software throughout. Here's how to get it for your course

For Students: Installing Analytic Solver Platform for Education

 1) To download and install Analytic Solver Platform for Education from Frontline Systems to work with Microsoft® Excel® for Windows®, please visit: www.solver.com/student

 2) Fill out the registration form on this page, supplying your name, school, email address (key information will be sent to this address), course code (obtain this from your instructor), and textbook code (enter AWMB13).

 3) On the download page, change 32-bit to 64-bit ONLY if you've confirmed that you have 64-bit Excel® (see below). Click the Download Now button, and save the downloaded file (SolverSetup.exe or SolverSetup64.exe).

4) Close any Excel® windows you have open.

5) Run SolverSetup/SolverSetup64 to install the software. When prompted, enter the installation password and the license activation code contained in the email sent to the address you entered on the form above.

 If you have problems downloading or installing, please email support@solver.com or call 775-831-0300 and press 4 (tech support). Say that you have Analytic Solver Platform for Education

and have your course code and textbook code available. If you have problems setting up or solving your model, or interpreting the results, please ask your instructor for assistance. Frontline Systems cannot help you with homework problems. If you have this textbook but you aren't enrolled in a course, call 775-831-0300 and press 0 for assistance with the software.

 If you have a Mac, you'll need to install "dual-boot" or VM software, Microsoft Windows®, and Office or Excel® for Windows® first. Excel® for Mac will NOT work. Do You Have 64-bit Excel®? For Excel® 2007, always download SolverSetup. In Excel® 2010, choose File > Help and look in the lower right. In Excel® 2013, choose File > Account > About Excel® and look at the top of the dialog. Download SolverSetup64 ONLY if you see "64-bit" displayed.

NOTE: The Point University Bookstore may offer the textbook(s) for this course in other formats. Information can be found at www.pointuniversityshop.com

COURSE SCHEDULE
Each course begins on a Wednesday with a Getting Started module before moving into the week 1-7 content. The introduce yourself forum is required during the Getting Started module in order to be counted present during this half-week of instruction. The introduce yourself forum is open from the start of the course to the first Sunday. All posts are due by Sunday at 11:59 p.m. Participation is required to be marked present for this time period. Keep in mind that in future weeks, forum due dates may be different.

Unless stated otherwise, graded assignments are due on the last day of the course week (Sunday). http://point.edu/course-schedules/

		Learning Activities	Graded Assignments
Week 1		Unit 1: Introduction to Quantitative Analysis in Decision-Making	
		Reading	
		Reading Quiz	Due Week 1, Day 7
		Video Introduction and Overview	
		Discussion Forum: Initial Post	Due Week 1, Day 5
		Discussion Forum: Response to Peer	Due Week 1, Day 7
		Weekly Case Analysis	Due Week 1, Day 7
		Content Discussion and Q&A	
		Theory Development Exercise	Due Week 1, Day 7
Week 2		Unit 2: Decision Analysis	
		Reading Reading Quiz	Due Week 2, Day 7
		Video Introduction and Overview	
		Discussion Forum: Initial Post	Due Week 2, Day 5
		Discussion Forum: Response to Peer	Due Week 2, Day 7
		Weekly Case Analysis	Due Week 2, Day 7
		Content Discussion and Q&A	
		Theory Development Exercise	Due Week 2, Day 7
Week 3		Unit 3: Linear Programming	
		Reading	
		Reading Quiz	

	Video Introduction and Overview	Due Week 3, Day 7
	Discussion Forum: Initial Post	Due Week 3, Day 5
	Discussion Forum: Response to Peer	Due Week 3, Day 7
	Weekly Case Analysis	Due Week 3, Day 7
	Content Discussion and Q & A	
	Theory Development Exercise	Due Week 3, Day 7
Week 4	**Unit 4: Distribution and Network Models**	
	Reading	
	Reading Quiz	Due Week 4, Day 7
	Video Introduction and Overview	
	Discussion Forum: Initial Post	Due Week 4, Day 5
	Discussion Forum: Response to Peer	Due Week 4, Day 7
	Weekly Case Analysis	Due Week 4, Day 7
	Content Discussion and Q & A	
	Theory Development Exercise	Due Week 4, Day 7
Week 5	**Unit 5: Integer Linear Programming**	
	Reading	
	Reading Quiz	Due Week 5, Day 7
	Video Introduction and Overview	
	Discussion Forum: Initial Post	Due Week 5, Day 5
	Discussion Forum: Response to Peer	Due Week 5, Day 7
	Weekly Case Analysis	Due Week 5, Day 7
	Content Discussion and Q & A	
	Theory Development for Research Plan	Due Week 5, Day 7
Week 6	**Unit 6: Project Scheduling**	
	Reading	
	Reading Quiz	Due Week 6, Day 7
	Video Introduction and Overview	
	Discussion Forum: Initial Post Discussion Forum: Response to Peers	Due Week 6, Day 5 Due Week 6, Day 7
	Weekly Case Analysis	Due Week 6, Day 7
	Content Discussion and Q & A	
	Research Plan Data Collection	Due Week 6, Day 7
Week 7	**Unit 7: Reporting Research Results**	
	Reading	
	Reading Quiz	Due Week 7, Day 7
	Video Introduction and Overview	
	Discussion Forum: Initial Post	Due Week 7, Day 5
	Discussion Forum: Response to Peer	Due Week 7, Day 7
	Weekly Case Analysis	Due Week 7, Day 7
	Content Discussion and Q & A	
	Research Report	Due Week 7, Day 7

GRADING POLICIES

Course Evaluation Plan
An assessment instrument (checklist, rubric, quiz, etc.) will accompany each major graded assignment. See the instructions for specific assignment criteria and accompanying grading instruments.

Points Distribution
Graded assignments will be distributed as follows:

Graded Assignments	Points Possible
Reading Quizzes (7 @ 40)	280
Discussion Forum Posts (7 @ 40 pts.)	280
Weekly Written Case Analyses (7 @ 20 pts.)	140
Theory Development Exercises (4 @ 10 pts.)	40
Weekly research assignments (2 @ 10 pts)	20
Final Research Report	240
Total Points:	1000

Final Grades

The following scale will be used when calculating final grades:

A	90-100%	D	60-69%
B	80-89%	F	0-59%
C	70-79%		

Final grades will be posted according to the Academic Calendar:
http://point.edu/academic-calendar/

COURSE LEARNING GOALS & OBJECTIVES

TIME REQUIREMENTS & COMMITMENTS
This course is 3 credit hours. Regarding time on task, students can expect to spend approximately 16 hours per week for an undergraduate course.

COURSE GOALS AND OBJECTIVES	Program Objective(s)
Goal 1: Prepare students to explain the relationship of problem solving and decision making	

	Objective 1.1: Students explain model development and data preparation	**1.3**
	Objective 1.2: Students discuss model solutions and how they lead to report generation	**1.2,1.3**
	Objective 1.3: Students explore models of cost, revenue, and profit	**1.2,1.3**
	Objective 1.4: Students discuss the practice of quantitative methods	**1.2,1.3**
Goal 2: Prepare students to interpret decision analyses		
	Objective 2.1: Students appraise problem formulation through influence diagrams and decision trees	**1.2,1.3**
	Objective 2.2: Students assess decision making without probabilities	**1.2,1.3**
	Objective 2.3: Students assess decision making with probabilities	**1.2, 1.3**
	Objective 2.4: Students appraise risk analysis and sensitivity analysis	**1.2,1.3**
Goal 3: Prepare students to evaluate ethical considerations in using subjective probability		
	Objective 3.1: Students identify quantitative methods and software available for decision making	**1.2,1.3**
	Objective 3.2: Students appraise subjective probability methods	**1.2,1.3**
	Objective 3.3: Students choose potential outcomes utilizing subjective probability and the impact of outcomes based on Judeo-Christian ethics	**1.2,1.3**
Goal 4:	Prepare students to interpret linear programming	
	Objective 4.1: Students examine maximization problems and interpret solutions	**1.3**
	Objective 4.2: Students examine minimization problems and interpret solutions	**1.3**
Goal 5:	Prepare students to create project schedules utilizing PERT and CPM	

	Objective 5.1: Students develop project schedules comparing and contrasting PERT with CPM	1.2,1.3
		1.2,1.3
	Objective 5:2: Students formulate recommendations for project schedule actions based on research findings	
		1.2,1.3
	Objective 5.3: Students create effective written and oral communication of findings and recommendations	

DISABILITY SERVICES

Point University is committed to providing qualified students with disabilities an equal opportunity to access a Point education through the provision of reasonable and appropriate accommodations and support services. Accordingly, Point complies with Title IX (https://point.edu/title-ix) of the Educational Amendments of 1972 and the subsequent reauthorization of that act, Section 504 of the Rehabilitation Act of 1973, and the Americans with Disabilities Act of 1990 and subsequent amendments to that act. For more information about Disability Support Services, see the "Consumer Information" section of the website (http://point.edu/disclosures) and the "Student Services" section of this catalog, or contact the Director of Disability Services and College Section 504 Coordinator, at disability.services@point.edu.

COURSE EXPECTATIONS

Attendance

A student is expected to actively participate in each week of the class in which he or she is enrolled. Active participation each academic week includes submitting classwork in one or more of the following activities within the course during the week they are due: discussion forums, assignments such as (but not limited to) projects, papers, presentations, case studies, quizzes, or exams. Students may be absent up to 25% of the class. After absences exceed 25% of the session or term's total – in either consecutive or cumulative days – the student will be withdrawn from the class roster and assigned a grade on the basis of work completed at the time of withdrawal unless, because of exceptional circumstances, prior arrangements have been made with the professor and the Chief Academic Officer.

Students representing the university, such as student-athletes, remain responsible for submitting work online within the week it is due to be counted present. No student will be disadvantaged while representing the university. However, the responsibility is on the student to notify faculty no later than one week before missing class for any reason, to ensure time for content to be made available to them and for make-up work to be considered and arranged. It is expected that students will limit their absences outside of these required absences, as they will be dropped if they overcut the allowed number of absences.

The full attendance policy is found in the catalog (https://point.edu/catalogs/).

Etiquette & Netiquette
Students are expected to be respectful and well-mannered towards the instructor and their peers, whether in the physical classroom or the online course site. For guidance on meeting this expectation, particularly in the online environment, please see the materials provided during student orientation or reach out to advising.center@point.edu.

Policies
For academic policies governing attendance, late assignments, and student support, please refer to the Academic Catalog directly (https://point.edu/catalogs/).

COPYRIGHT AND FURTHER DISSEMINATION

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