

## **Quantitative Methods**

Course Title	Quantitative Methods		
Course Code	MAT121C	Course Type	General Education Required Course
Credit	3	Contact Hours	45
Prerequisites	None	Co-Requisites	None
Duration	15 weeks	Class Type	Lecture

SolBridge GACCS Objectives	%	Learning Objectives
<ol> <li>Global Perspective</li> <li>Asian Expertise</li> <li>Creative Management Mind</li> <li>Cross Cultural Communication</li> <li>Social Responsibility</li> </ol>	30 0 70 0	<ol> <li>Demonstrate skills in basic mathematical methods and operations, such as manipulating fractions, writing and plotting basic mathematical functions, solving algebraic equations, differentiation and integration, profit maximization etc.</li> <li>Apply some of the above skills to problems in management and business, for example market analysis, input-output analysis, financial calculations, and investment appraisal, etc.</li> <li>Discuss the importance of mathematical approaches to decision-making</li> <li>Use Microsoft Excel and other tools for calculations</li> </ol>

## **Course Description**

This course is for students who want to obtain the essential mathematical skills used in economics and business. By the end of this course, the students are expected to be prepared to apply those widely-used quantitative methods in solving business problems. In addition, this course is aimed at developing a solid foundation to study more advanced topics in your focused academic disciplines in the future. At a minimum, students are expected to attend all classes and complete all assigned homework problems.

## Learning and Teaching Structure

The course will be a mix of lectures, take-home and on-line exercises. All students must familiarize themselves with Moodle which will be used as online platform. There will be no printed notes, and most of the distributed material will be in the electronic form. All submissions in hard or hand-written copy. The instructor will communicate with all students via Moodle and e-mails on the "mail.office365.com" domain. It is the student's responsibility to update their e-mail addresses and access the messages frequently.

Assessment	%	Text and Materials
Attendance	20	Title: Essential Mathematics for Business and Economics
Assignments	20	Edition: 4th Edition (2013)
Midterm Examination	30	Authors: Teresa Bradley
Final Examination	40	Publisher: John Wiley and Sons
		ISBN-13: 978-1-1183-5829-0

## **Course content by Week**

1	Mathematical Preliminaries, the Straight Line and Applications
2	Simultaneous Equations
3	Non-linear Functions and Applications
4-5	Financial Mathematics
6-7	Review and Midterm Exam
8-9	Differentiation and Applications
10	Functions of Several Variables
11-13	Integration and Applications
14-15	Review and Final Exam