School of Business
Department of Mathematics and Physics

Course Name:	**Elementary Mathematics**
Course Code & Section No:	**MAT 112-XX**
Semester:	**Summer 2015**

INSTRUCTOR & DEPARTMENT INFORMATION	
1. Instructor Name:	
2. Office Room:	
3. Office Hours:	
4. Office Phone:	
5. Email Address:	
6. Department:	**Mathematics and Physics**
7. Links:	North South University Website: http://www.northsouth.edu School of Business Website: http://www.northsouth.edu/academic/sob/

COURSE & SECTION INFORMATION	
Class Time & Location	
Course Credit Hours	3:0
Course Description	This course provides students an overview of the fundamentals of Mathematics. It develops the students' understanding of basic arithmetic, algebra and geometry.
Course Objectives	This course is designed to help students to develop competence in applying the mathematical concepts, skills and techniques learned, to problem-solving situations in the areas of business and economics.
Student Learning Outcomes	Upon the successful completion of this course, a student will be able to: 1. Apply the fundamental concepts of Algebra to solve basic quantitative problems involving polynomials, factoring, rational expressions and radicals. 2. Form linear and quadratic equations and/or inequalities based on real-life situations and solve them. 3. Have a thorough understanding of the Cartesian co-ordinate system, graphical relations and functions. 4. Acquire the prerequisite knowledge and mathematical skills necessary to undertake higher level courses which have a quantitative focus.

LEARNING RESOURCES AND TEXTBOOK(S)

Required Text Book

Author	Title	Edition & Year	Publisher	ISBN
Margaret L. Lial, Charles D. Miller and David I. Schneider	**"Algebra and Trigonometry"**	6th edition, 2011	Harper Collins	10: 0673469360/ 13:9780673469366

TEACHING STRATEGY

The class will be conducted through various activities including discussion of concepts and problem-solving, student initiative and active involvement as well as practice of quantitative problems. Students are expected to actively involve and to take initiative for their own learning experience.

ASSESSMENT STRATEGY AND GRADING SCHEME

Grading tool	Points
Attendance	5%
Class Participation	5%
Quiz	10%
Midterm 1	25%
Midterm 2	25%
Final Exam	30%

Please Refer to NSU Student Handbook, Section: "Grading Policy"

CLASSROOM RULES OF CONDUCT

1. You may use your **laptops** in the class for class related work. Do not use your laptop for non-class related work or in any manner that will be distracting to other students or the instructor.

2. It is imperative that the students maintain absolute discipline in class. Please set your cellular phones to silent mode before the class lecture starts. Attendance for the day will be cancelled if your cell phone rings in the class. Students are also expected to arrive on time for the class, as frequent late attendance will not be accepted.

3. **Academic Integrity Policy:** School of Business does not tolerate academic dishonesty by its students. At minimum, students must not be involved in cheating, copyright infringement, submitting the same work in multiple courses, significant collaboration with other individuals outside of sanctioned group activities, and fabrications.

Students are advised that violations of the Student Integrity Code will be treated seriously, with special attention given to repeated offences.

Please Refer to NSU Student Handbook, Sections: "Disciplinary Actions" and "Procedures and Guidelines".

EXAMS & MAKE UP POLICY

Three quizzes will be taken (best **Four** out of **Five** will be considered). **NO makeup for quizzes will be taken under any circumstances.** If a student misses any of the Midterm exams **only** due to extreme emergencies (official material evidence is required), the weight of the missed exam will be transferred and added to the weight of the final exam.

Cell phones are prohibited in exam sessions.

ATTENDANCE POLICY

Students are required and expected to attend all classes regularly and on time and participate in class discussions. North South University mandates to fail students who are absent 25% or more from their classes, even if such absences are excusable. If a student misses more than two lectures, marks will be deducted for each day of absence. Absence due to extreme situations will be considered an exception, as per the instructor's decision. It is the responsibility of the student to become aware of other course-related announcements missed during an absence. Students not missing any course lectures AND exams will receive an attendance bonus of 2% of total marks.
Please Refer to NSU Student Handbook, Section: "Study Principles and Policies"

COMMUNICATION POLICY

All communications should take place using the instructor's email. Announcements in class will override any statement made here or in any other handouts. It is the student's responsibility to be aware of any announcements made in class.

APPROPRIATE USE POLICY

All members of the North South University community must use electronic communications in a responsible manner. The University may restrict the use of its computers and network systems for electronic communications subject to violations of university policies/codes or local laws or national laws. Also, the university reserves the right to limit access to its networks through university-owned or other computers, and to remove or limit access to material posted on university-owned computers.

STUDENTS WITH SPECIAL NEEDS

North South University will provide educational opportunities that ensure fair, appropriate and reasonable accommodation to students who have disabilities/special needs that may affect their ability to participate in course activities or meet course requirements. Students with disabilities are encouraged to contact their instructors to ensure that their needs are met. The University through its Special Need section will exert all efforts to accommodate special needs.

Special Needs Section
Telephones: +88-02-5566 8200 ext-1220
Location: Room # 413/A, Admin Building (4th floor).

Please Refer to NSU Student Handbook, Section: "Special Needs Services"

STUDENTS SUPPORT AND LEARNING RESOURCES

A. SOB-Learning Center:
B. The University Student Learning Support Center (SLSC): These centers provide academic support services to students at NSU. The SLSC is a supportive environment where students can seek assistance with academic coursework, writing assignments, transitioning to college academic life, and other academic issues. SLSC programs include: Peer Tutoring, the Writing Lab, Writing Workshops, and Academic Success Workshops. Students may also seek confidential academic counseling from the professional staff at the Center.

Students Learning & Support Center (SLSC)
Tel: +88-02-5566 8200 ext-1220
Fax: +88-02-8852016
Location: Room # 413/A, Admin Building (4th floor).

Please Refer to NSU Student Handbook, Section: "Student Leaning Support Center"

STUDENTS COMPLAINTS POLICY

Students at North South University have the right to pursue complaints related to faculty, staff, and other students. The nature of the complaints may be either academic or non-academic. For more information about the policy and processes related to this policy, you may refer to the students' handbook.

COURSE CONTENTS &SCHEDULE

Lecture No.	Topic	Chapter
1.	Fundamentals of Algebra: Real Numbers	Chapter 1.1
2.	Fundamentals of Algebra: Exponents, Polynomials	Chapter 1.2, 1.3
3.	Fundamentals of Algebra: Factoring, Rational expressions	Chapter 1.4, 1.5
4.	Radicals, Linear equations	Chapter 1.6, 2.1
5.	Formulas and Applications	Chapter 2.2
6.	Quadratic equations, Other types of Equations	2.3,2.4
7.	Inequalities	Chapter 2.6
8.	*Midterm 1*	
9	Cartesian Co-ordinate systems, Graphing Relations	Chapter 3.1, 3.2
10	Functions, Linear Functions	Chapter 3.3, 3.4
11	Equations of a line, Symmetry	Chapter 3.5. 3.6
12.	Algebra of Functions, Inverse Functions	Chapter 3.7, 3.8
13.	Quadratic Functions	Chapter 4.1
14.	Synthetic Division	Chapter 4.2
15.	*Midterm 2*	
16.	Exponential Functions, Logarithmic Functions	Chapter 5.1,5.2
17.	Equations on Exponential and Logarithmic functions	Chapter 5.3
18.	Systems of Equations	Chapter 9.1
19.	Systems of Inequalities; Linear Programming	Chapter 9.2
20	Matrix Solution of Linear Systems	Chapter 9.3
21	Properties of Matrices	Chapter 9.4
22.	Determinants, Cramer's rule	Chapter 9.5, 9.6
23.	Matrix Inverse	Chapter 9.7
24.	Review Class	
25	*Final Exam*	

Note: The instructor reserves the right to make changes to the syllabus if necessary.