COURSE OUTLINE

REMEDIAL MATHEMATICS

COURSE CODE: ECON0001
CREDITS: 3
SEMESTER: Summer Programme 2011

Course Coordinator: Mr. Gregory Wallace
Course Tutors: Mr. Gregory Wallace
Mr. Carlton Layne
Ms. Antoinette Stewart
Mr. Christian Hume

COORDINATOR’S CONTACT:
Office: Ext. 3055
Via email: Gregory.Wallace @sta.uwi.edu

DESCRIPTION OF THE COURSE

This course is intended for the following students:
i. students who are reading B. Sc. Economics Special or B. Sc. Economics Major and were unsuccessful in the Mathematics Proficiency Test (MPT)
ii. students who are reading B. Sc. Economics Special or B. Sc. Economics Major and were unsuccessful in ECON0001 in Semester I
iii. students who are in receipt of a conditional offer to read for an undergraduate degree program beginning Academic year 2011-2012 but do not possess a Pass in either CXC General Proficiency or GCE ‘O’ Level Mathematics
iv. students who are pursuing or about to begin the B. Sc. Economics, the B. Sc. Management Studies, B.Sc. Accounting, B. Sc. Banking & Finance, B.Sc. Hotel Management, B.Sc. Hotel Management, B.Sc. International Tourism, B.Sc. Hospitality & Tourism Management or B.Sc. Sports Management program and have been away from Mathematics for more than five (5) years.

The course is divided into seven (7) sections; one for each week of the Summer Programme.
AIM OF THE COURSE

This course aims to provide these students with an experience of basic mathematics that will result in the students closing their gaps in the areas of basic mathematics that are considered as prerequisites for the Level I course, ECON1003 – Introduction to Mathematics.

LECTURES AND TUTORIALS

Lectures/Tutorial: three (3) hours per week
Attendance at all Lectures/Tutorials is mandatory.

ADVICE TO STUDENTS:

Learning in courses such as Mathematics requires students to be focused. **Students are required to attend a minimum of 75% of lectures/Tutorials. Regulation 19 allows for the Lecturer to debar students who fail to attend a minimum of 75% of the lecture/tutorials from writing the final exam.** The Lecturer will be enforcing this regulation.

This is a practical course, the more you practice is the more proficient you become. Outside of the official contact hours, you should devote at least ten hours per week towards working problems.

Assignment Sheets are designed to help students flesh out concepts and practice the application of the concepts to a range of problem situations. These are important in this course since they provide the basis for formal practice and assist in reinforcing the concepts introduced in lectures. It is expected that students will also use the texts and recommended references. Every effort should be made to complete each tutorial sheet within the time period indicated on the sheet.

Students are advised to read through the assignment sheet to identify the concepts required for its solution prior to revising the concepts so identified; it is only after such revision that each student should proceed to attempt the solutions. Some questions in an assignment sheet will be solved in one attempt; others will require more than one attempt. Students are encouraged to adopt co-operative learning approaches (i.e. working with another student or students) to solve the more challenging questions in the assignment sheet.

If after the individual effort and the co-operative learning effort, the student feels challenged by a question(s), he/she owes it to himself/herself to seek out the Course Lecturer/Tutor for guidance and assistance. Please make good use of them. Under no condition should a student come to a tutorial class unprepared to contribute to the class proceedings. The student’s contribution must be the result of his/her efforts at the assignment sheet.

**Remember to apply yourself consistently from the first week.**

ASSESSMENT
Assessment Objectives:

The assessment will test the ability of the students to:

a. demonstrate an understanding of basic mathematical concepts.

b. apply basic mathematical concepts to word problems.

c. recognise the appropriate basic mathematical technique for a given situation and apply same to the situation completely and correctly.

Assessment will take the form of coursework and a final examination.

The coursework component will comprise the following:

Attendance at Lecture/Tutorials 5%
Participation over all lectures/tutorials 15%
Two Coursework Exams in Weeks 3 & 5 20%

The Final Examination will be two (2) hours long and will account for 60%. Students will be required to show all working.

COURSE CONTENT

1. Addition, Subtraction, Multiplication & Division of Integers, Real Numbers, Fractions & Powers; Manipulation, Simplification, Substitution, Cancellation, Addition, Subtraction, Multiplication of Algebraic Expressions

2. Sets – Definitions; Operation of Union, Intersection and Complement; Number of Elements in a Set

3. Linear Equations; Simple Inequalities; Manipulating Inequalities; Solving Inequalities

4. Cross Multiplication; Changing the Subject of a Formula; Simultaneous Equations; Factorisation of Quadratic Expressions; Solution of Quadratic Equations

5. Power Functions

6. The Straight Line – Generic Equation; Slope/gradient, y-Intercept; x-Intercept; finding y-value for a specified x-value, finding x-value for a specified y-value.

7. Word Problems - Using the principles learnt to solve daily problems/

COURSE DELIVERY PLAN
<table>
<thead>
<tr>
<th>Week</th>
<th>Lecture/Tutorial on Operations on Numbers; Algebraic Expressions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 2</td>
<td>Lecture/Tutorial on Sets</td>
</tr>
<tr>
<td>Week 3</td>
<td>Lecture/Tutorial on Solution of Linear Equations and Inequalities. Coursework Examination #1.</td>
</tr>
<tr>
<td>Week 4</td>
<td>Lecture/Tutorial on Subject of a Formula; Cross Multiplication; Simultaneous Equations; Factorisation of Quadratic Expressions; Solution of Quadratic Equations</td>
</tr>
<tr>
<td>Week 5</td>
<td>Lecture/Tutorial on Power Functions. Coursework Examination #2.</td>
</tr>
<tr>
<td>Week 6</td>
<td>Lecture/Tutorial on The Straight Line</td>
</tr>
<tr>
<td>Week 7</td>
<td>Lecture/Tutorial on Word Problems</td>
</tr>
</tbody>
</table>

**READING LIST**


*May 2011*