Course Syllabus

1. **Program of Study**   Bachelor of Science (Applied Mathematics)
   College   Mahidol University International College

2. **Course Code**   ICMA 211
   Course Title   General Mathematics I

3. **Number of Credits**   4(4-0-8) (Lecture-Lab-Self study)

4. **Prerequisites**   None

5. **Type of Course**   Core science course.

6. **Session / Academic Year**   First trimester/every year.

7. **Course Conditions**   Maximum number of students is 30 per class.

8. **Course Description**
   Techniques of integration, improper integrals, applications of integration, analytical geometry, infinite series, polar coordinates, parametric equations, vectors in the plane.

9. **Course Objectives**
   After successful completion of this course, students will be able to
   9.1   integrate by using difference techniques;
   9.2   understand the concepts of improper integrals, infinite series, etc;
   9.3   apply combinations of mathematical skills and techniques in problem solving.

10. **Course Outline**

Week	Topics	Hours			Instructor
		Lecture	**Lab**	**Self study**	
1-3	Techniques of integration and applications	12	-	24	TBA
4	Improper integrals	4	-	8	
5	Applications of integration	4	-	8	
6	Analytic geometry	4	-	8	
7-8	Infinite series	8	-	16	
9	Polar coordinates	4	-	8	
10	Parametric equations	4	-	8	
11	Vectors in the plane	4	-	8	
Final Examination					
	Total	**44**		**88**	

11. **Teaching Method**
    Lectures

12. **Teaching Media**
    Texts and handouts

13. Measurement and Evaluation of Student Achievement

      Student achievement is measured and evaluated by

         13.1 The ability to integrate by using difference techniques;

         13.2 The ability to explain the concepts of improper integrals, infinite series, etc;

         13.3 The ability to apply combinations of mathematical skills and techniques in problem solving

      Student's achievement will be graded according to the college and university standard using the symbols: A, B+, B, C+, C, D+, D and F.

Ratio of mark	
Homework and quizzes	15%
Test 1	25%
Test 2	25%
Final exam	35%

14. Course evaluation

         14.1 Students' achievement as indicated in number 13 above.

         14.2 Students' satisfaction towards teaching and learning of the course using questionnaires.

15. References

         15.1 Howard, A. Calculus. Wiley and sons, Inc.

         15.1 Anton H. Calculus. Wiley and sons, Inc.

         15.2 James, S. Calculus. Brooks/Cole.

         15.2 James S. Calculus. Brooks/Cole.

         15.3 George, T. B and Ross, F. Calculus and Analytic Geometry. Addison-Wesley.

         15.4 Thomas GB, Finney R. Calculus and analytic geometry. Addison-Wesley.

16. Instructors

      Assoc. Prof. Dr. Chinda Achariyakul

17. Course Coordinator   TBA