

I. COURSE DESCRIPTION:

This course provides students with the ability to apply mathematics in their daily lives. Students will learn how to reason and interpret with information involving mathematics and numbers. Students will develop skills in problem solving and analysis, which can be applied to personal decision making and to the evaluation of concerns in society.

II. LEARNING OUTCOMES**A. Learning Outcomes:**

Upon successful completion of this course, students will demonstrate the ability to:

1. Represent mathematical information symbolically, visually, numerically, and verbally.
2. Interpret mathematical models such as formulas, graphs, and tables, and draw inferences from them.
3. Use arithmetical, algebraic and statistical methods to solve problems.
4. Think critically about, and apply logic to quantitative issues that confront them in their personal lives and as citizens.
5. Recognize that mathematical and statistical methods have limits.

**II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE
(Continued):**

1. Represent mathematical information symbolically, visually, numerically, and verbally.

Potential elements of the performance:

- Show the relationship of a quantity with respect to another by using words, a table, an equation, a picture, or a graph.
 - Apply the most appropriate representation method for the situation.
2. Interpret mathematical models such as formulas, graphs, and tables, and draw inferences from them.

Potential elements of the performance:

- Manipulate and analyze formulas of linear and nonlinear relations.
- Use a variety of types of graphs and tables to obtain information.
- Predict some aspect of the behavior of a particular phenomenon or process.

3. Use arithmetical, algebraic, logical, and statistical methods to solve problems.

Potential elements of the performance:

- Apply guidelines for problem solving to specific situations.
 - Formulate basic algebraic, graphical, or statistical solutions to problems.
4. Think critically about quantitative issues that confront them in their personal lives and as citizens.

Potential elements of the performance:

- Examine and evaluate scientific claims.
 - Analyze the validity, accuracy and/or conclusions of the statistics in the news media, opinion polls, or reports of research.
5. Recognize that mathematical and statistical methods have limits.

Potential elements of the performance:

- Recognize that some scientific claims may be biased or inaccurate.
- Give examples of the possible inaccuracy of estimates in measurement due to biases and /or random and systematic errors.
- Examine methods used with respect to their appropriateness for the given situation.

III. **TOPIC**

1. Problem Solving and Numbers in the Real World
2. Consumer Math
3. Statistics
4. Math in the World

IV. **LEARNING ACTIVITIES**

TOPIC NUMBER	TOPIC DESCRIPTION	REFERENCES ASSIGNMENTS
1	Approaches To Problem Solving & Numbers in the Real World	Handout / Web Material
2	Growth/scaling	Handout / Web Material
3	Probability & statistics	Handout / Web Material

V. REQUIRED RESOURCES / TEXTS / MATERIALS:

A scientific calculator is required. The Sharp EL-531L is recommended.

VI. EVALUATION PROCESS/GRADING SYSTEM:**MAJOR ASSIGNMENTS AND TESTS**

There will be 3-4 tests, one per topic as listed above, each worth 25% -33% of the final grade.

ATTENDANCE

It is your responsibility to attend all classes during the semester. Research indicates there is a high correlation between attendance and student success.

If you are absent from class, it is your responsibility to find out what work was covered and assigned and to complete this work before the next class. Your absence indicates your acceptance of this responsibility.

Unexcused absence from a test may result in a mark of zero (“0”). Absence may be excused on compassionate grounds such as verified illness or bereavement. On return from an excused absence, you should ask your instructor to schedule the writing of a make-up test. Failure to do so will be considered as an unexcused absence.

METHOD OF ASSESSMENT (GRADING METHOD)

The following semester grades will be assigned to students:

Grade	Definition	Grade Point Equivalent
A+	90 – 100%	4.00
A	80 – 89.99%	3.00
B	70 – 79.99%	2.00
C	60 – 69.99%	1.00
D	50 – 59.99%	0.00
F (Fail)	Below 50%	0.00
CR (Credit)	Credit for diploma requirements has been awarded.	
S	Satisfactory achievement in field /clinical placement or non-graded subject area.	
U	Unsatisfactory achievement in field/clinical placement or non-graded subject area.	
X	A temporary grade limited to situations with extenuating circumstances giving a student additional time to complete the requirements for a course.	
NR	Grade not reported to Registrar's office.	
W	Student has withdrawn from the course without academic penalty.	

VI. SPECIAL NOTES:Disability Services:

If you are a student with a disability (e.g. physical limitations, visual impairments, hearing impairments, or learning disabilities), you are encouraged to discuss required accommodations with your professor and/or the Disability Services office. Visit Room E1101 or call Extension 2703 so that support services can be arranged for you.

Retention of Course Outlines:

It is the responsibility of the student to retain all course outlines for possible future use in acquiring advanced standing at other postsecondary institutions.

Communication:

The College considers WebCT/LMS as the primary channel of communication for each course. Regularly checking this software platform is critical as it will keep you directly connected with faculty and current course information. Success in this course may be directly related to your willingness to take advantage of the **Learning Management System** communication tool.

The professor reserves the right to use other tools and / or techniques that may be more applicable. These other tools and / or techniques for effective communication will be discussed, identified and presented throughout the delivery of the course content.

Plagiarism:

Students should refer to the definition of “academic dishonesty” in *Student Code of Conduct*. Students who engage in “academic dishonesty” will receive an automatic failure for that submission and/or such other penalty, up to and including expulsion from the course/program, as may be decided by the professor/dean. In order to protect students from inadvertent plagiarism, to protect the copyright of the material referenced, and to credit the author of the material, it is the policy of the department to employ a documentation format for referencing source material.

Course Outline Amendments:

The professor reserves the right to change the information contained in this course outline depending on the needs of the learner and the availability of resources.

Substitute course information is available in the Registrar's office.

The topics will not necessarily be covered in the order shown in this course outline.

VII. PRIOR LEARNING ASSESSMENT:

Students who wish to apply for advanced credit transfer (advanced standing) should obtain an Application for Advance Credit from the program coordinator (or the course coordinator regarding a general education transfer request) or academic assistant. Students will be required to provide an unofficial transcript and course outline related to the course in question.

Credit for prior learning will also be given upon successful completion of a challenge exam or portfolio.