EDISON STATE COLLEGE

CURRICULUM COMMITTEE
CHANGE OF COURSE PROPOSAL FORM

TO: **CURRICULUM COMMITTEE**
FROM: Theo Koupelis
PRESENTER: JoAnn Lewin
DATE: 1/16/09

TYPE OF COURSE CHANGE: Check all that apply.

☐	**Change to course number**
☒	**Change to course title**
☐	**Change to course description**
☐	**Change to course co-requisites**
☐	**Change to course prerequisites**
☐	**Change to course learning outcomes****
☐	**Change to course transfer designation**
☐	**Change to course credits**
☐	**Other (specify)**

Course Name, including prefix and number: **STA 2023: Statistical Methods I**
(old title: STA 2023: Introductory Statistics)

Class credits: from to

Lab credits: from to

Combined lab & class credits: from to

From ☐ AA/AP to ☐ AS/PSV From ☐ AS/PSV to ☐ AA/AP

From ☐ AS to ☐ BS

From ☐ degree core requirement to ☐ elective OR

From ☐ elective to ☐ degree core requirement

From ☐ part of general education program to ☐ not part of general education program

OR From ☐ not part of general education program to ☐ part of general education program

Change in prerequisites from to

Change in co-requisite from to

Is there a Major Restriction? yes no (meaning only declared majors may take the course)

Course fee change from to (Attach course fee worksheet, if applicable)

JUSTIFICATION FOR CURRICULUM ACTION, OTHER EXPLANATORY INFORMATION:

The new title for the course matches the latest Statewide Course Numbering System title.

TERM IN WHICH PROPOSED ACTION WILL TAKE EFFECT: Fall 2009 (For any term other than fall of the academic year following submission, approval of the Vice President of Academic and Student Affairs is required.)

_____
(Signature of Vice President of Academic and Student Affairs)

FACULTY ENDORSEMENTS:

This proposal has the support of the entire math faculty. It also has the support of the Learning Outcomes Associate.

LEARNING OUTCOMES ASSOCIATE: _____ DATE: _____

DEPARTMENT CHAIR ENDORSEMENT: _____ DATE: _____

ACADEMIC DEAN'S ENDORSEMENT: _____ DATE: _____

After review and signing of the proposal, the DEPARTMENT CHAIR will forward the proposal to the DISTRICT DEAN for a final signature and the DISTRICT DEAN will return the signed form back to the DEPARTMENT CHAIR.

DISTRICT DEAN ENDORSEMENT: _____ DATE: _____

The DEPARTMENT CHAIR will process the proposal into a continuous document with any other proposals from his/her department being submitted for review by the Curriculum Committee and forward the document to the CURRICULUM COMMITTEE CHAIRPERSON by the Friday before the next scheduled Curriculum Committee meeting.

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CURRICULUM COMMITTEE
CHANGE OF COURSE PROPOSAL FORM

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FROM: Theo Koupelis
PRESENTER: JoAnn Lewin
DATE: 1/16/09

TYPE OF COURSE CHANGE: Check all that apply.

☐	**Change to course number**
☐	**Change to course title**
☐	**Change to course description**
☐	**Change to course co-requisites**
☐	**Change to course prerequisites**
☒	**Change to course learning outcomes****
☐	**Change to course transfer designation**
☐	**Change to course credits**
☐	**Other (specify)**

Course Name, including prefix and number: **STA 2023, MTB 1308, MGF 1106, MAC 1140**

Class credits: from to

Lab credits: from to

Combined lab & class credits: from to

From ☐ AA/AP to ☐ AS/PSV From ☐ AS/PSV to ☐ AA/AP

From ☐ AS to ☐ BS

From ☐ degree core requirement to ☐ elective OR

From ☐ elective to ☐ degree core requirement

From ☐ part of general education program to ☐ not part of general education program

OR From ☐ not part of general education program to ☐ part of general education program

Change in prerequisites from to

Change in co-requisite from to

Is there a Major Restriction? yes no (meaning only declared majors may take the course)

Course fee change from to (Attach course fee worksheet, if applicable)

JUSTIFICATION FOR CURRICULUM ACTION, OTHER EXPLANATORY INFORMATION:

The only changes made to the above four courses are related to the corresponding learning outcomes.

TERM IN WHICH PROPOSED ACTION WILL TAKE EFFECT: Fall 2009 (For any term other than fall of the academic year following submission, approval of the Vice President of Academic and Student Affairs is required.)

_____

(Signature of Vice President of Academic and Student Affairs)

FACULTY ENDORSEMENTS:

This proposal has the support of the entire math faculty and of the Learning Outcomes Associate.

LEARNING OUTCOMES ASSOCIATE: _____ DATE: _____

DEPARTMENT CHAIR ENDORSEMENT: _____ DATE: _____

ACADEMIC DEAN'S ENDORSEMENT: _____ DATE: _____

After review and signing of the proposal, the DEPARTMENT CHAIR will forward the proposal to the DISTRICT DEAN for a final signature and the DISTRICT DEAN will return the signed form back to the DEPARTMENT CHAIR.

DISTRICT DEAN ENDORSEMENT: _____ DATE: _____

The DEPARTMENT CHAIR will process the proposal into a continuous document with any other proposals from his/her department being submitted for review by the Curriculum Committee and forward the document to the CURRICULUM COMMITTEE CHAIRPERSON by the Friday before the next scheduled Curriculum Committee meeting.

EDISON STATE COLLEGE
Division of Arts and Sciences

COMMON COURSE SYLLABUS

Professor: **Office Location:**

E-mail: **Phone Number:**

Office Hours: **Semester:**

I. COURSE NUMBER AND TITLE, CATALOG DESCRIPTION, CREDIT HOURS:

STA 2023: Statistical Methods I – AA **4 Credits**

This is an introductory course covering the fundamental topics of statistics. Topics include: descriptive measures, probability, probability distributions, central limit theorem, sampling distributions, confidence intervals, hypothesis testing, correlation, regression analysis and non-parametric test procedures. A graphing calculator is required. If completed with a grade of "C" or better, this course serves to demonstrate competence in the general education mathematics requirement.

II. PREREQUISITES FOR THE COURSE:

MAT 1033 with a minimum grade of "C" or Testing

III. GENERAL COURSE INFORMATION: Topic Outline:

- Probability
- Random variables
- Hypothesis testing
- Confidence interval estimation
- Small sample methods
- Correlation
- Simple linear regression
- Nonparametric statistics

IV. LEARNING OUTCOMES AND ASSESSMENT:

General Education Competencies:
General education courses must meet at least four of the following outcomes. All other courses will meet one or more of these outcomes.

At the conclusion of this course, students will be able to demonstrate the following competencies:

Communication (COM): To communicate (read, write, speak and listen) effectively using standard English and apply effective techniques to create working relationships with others to achieve common goals.

Critical Thinking (CT): To demonstrate skills necessary for analysis, synthesis, and evaluation.

Technology/Information Management (TIM): To demonstrate the skills and use the technology necessary to collect, verify, document, and organize information from a variety of sources.

Global Socio-cultural Responsibility (GSR): To identify, describe, and apply responsibilities, core civic beliefs, and values present in a diverse society.

Scientific and Quantitative Reasoning (QR): To identify and apply mathematical and scientific principles and methods.

Additional Course Competencies:
At the conclusion of this course, students will be able to demonstrate the following additional competencies:

Learning Outcomes	Assessments	Gen. Ed. Competencies
Define and use the basic terminology of statistics.	Homework and/or Tests and/or Group Assignments	COM
Organize and display data by means of various tables, charts and graphs.	Homework and/or Tests and/or Group Assignments	QR
Compare different sets of data using graphs, charts, tables or numerical measures.	Homework and/or Tests and/or Group Assignments	COM, QR
Calculate and interpret the various descriptive measures for centrality, dispersion and relative standing.	Homework and/or Tests and/or Group Assignments	QR, TIM
Distinguish between different types of distributions.	Homework and/or Tests and/or Group Assignments	COM, QR
Apply basic rules of probability.	Homework and/or Tests and/or Group Assignments	QR, TIM
Apply the binomial probability distribution.	Homework and/or Tests and/or Group Assignments	QR, TIM
Use the empirical rule to find probabilities on a bell-shaped distribution.	Homework and/or Tests and/or Group Assignments	QR, TIM
Determine probabilities using the normal distribution curve.	Homework and/or Tests and/or Group Assignments	QR, TIM
Apply the central limit theorem.	Homework and/or Tests and/or Group Assignments	QR, TIM, CT
Estimate means and/or proportions using confidence intervals for one and/or two populations.	Homework and/or Tests and/or Group Assignments	QR, TIM, CT

Conduct hypothesis tests on means and/or proportions for one and/or two populations.	Homework and/or Tests and/or Group Assignments	QR, TIM, CT
Determine and interpret p-values.	Homework and/or Tests and/or Group Assignments	QR, TIM, CT
Calculate and interpret the linear correlation coefficient.	Homework and/or Tests and/or Group Assignments	QR, TIM
Determine the simple linear regression model and use it to predict values.	Homework and/or Tests and/or Group Assignments	QR, TIM
Analyze real-world data published in research journals or found on the internet.	Homework and/or Tests and/or Group Assignments	COM, GSR, QR, TIM, CT
Apply non-parametric statistical tests.	Homework and/or Tests and/or Group Assignments	QR, TIM, CT

V. DISTRICT-WIDE POLICIES:

Programs for Students with Disabilities
Edison State College, in accordance with the Americans with Disabilities Act and the College's guiding principles, offers students with documented disabilities programs to equalize access to the educational process. Students who need to request an accommodation in this class due to a disability, or who suspect that their academic performance is affected by a disability, should contact the Office of Adaptive Services at the nearest campus.

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Hendry/Glades Ctr.	LaBelle H.S.	(863) 674-0408

VI. REQUIREMENTS FOR THE STUDENTS: List specific course assessments, such as class participation, tests, homework assignments, make-up procedures, etc.

VII. ATTENDANCE POLICY: The professor's specific policy concerning absence. (The College policy on attendance is in the Catalog, and defers to the professor.)

VIII. GRADING POLICY: Include numerical ranges for letter grades; the following is a range commonly used by many faculty:

90 – 100	=	A
80 – 89	=	B
79 – 70	=	C
60 – 69	=	D
Below 60	=	F

(Note: The "incomplete" grade ["I"] should be given only when unusual circumstances warrant. An "incomplete" is not a substitute for a "D," "F," or "W." Refer to the policy on "incomplete" grades.)

IX. **REQUIRED COURSE MATERIALS:**

X. **RESERVED MATERIALS FOR THE COURSE:** Other special learning resources.

XI. **CLAST COMPETENCIES INVOLVED IN THE COURSE:**

XII. **CLASS SCHEDULE:** This section includes assignments for each class meeting or unit, along with scheduled Learning Resource Center (LRC) media and other scheduled support, including scheduled tests.

XIII. **ANY OTHER INFORMATION OR CLASS PROCEDURES OR POLICIES:** which would be useful to the students in the class.

Revised 01/09

EDISON STATE COLLEGE
Division of Arts and Sciences

COMMON COURSE SYLLABUS

Professor: **Office Location:**

E-mail: **Phone Number:**

Office Hours: **Semester:**

I. COURSE NUMBER AND TITLE, CATALOG DESCRIPTION, CREDIT HOURS:

MAC 1140: Pre-Calculus Algebra – AA **3 Credits**

This is an algebra class designed to prepare students to enter either engineering or calculus courses. Topics covered include exponential and logarithmic functions, polynomials, rational functions, conic sections, sequences and series, mathematical induction, the binomial theorem, and matrices. A graphing calculator is required. If completed with a grade of "C" or better, this course serves to demonstrate competence for the general education mathematics requirement.

II. PREREQUISITES FOR THE COURSE:

MAC 1105 with a minimum grade of "C" **or** appropriate CLM score

III. GENERAL COURSE INFORMATION: Topic Outline:

- Polynomial, rational, and other algebraic functions, their properties and graphs
- Polynomial and rational inequalities
- Exponential and logarithmic functions, their properties and graphs
- Piecewise defined functions
- Conic sections
- Matrices and determinants
- Sequences and series
- Mathematical induction
- Binomial Theorem
- Applications

IV. LEARNING OUTCOMES AND ASSESSMENT:

General Education Competencies:
General education courses must meet at least four of the following outcomes. All other courses will meet one or more of these outcomes.

At the conclusion of this course, students will be able to demonstrate the

following competencies:

Communication (COM): To communicate (read, write, speak, listen) effectively using standard English and apply effective techniques to create working relationships with others to achieve common goals.

Critical Thinking (CT): To demonstrate skills necessary for analysis, synthesis, and evaluation.

Technology/Information Management (TIM): To demonstrate the skills and use the technology necessary to collect, verify, document, and organize information from a variety of sources.

Global Socio-cultural Responsibility (GSR): To identify, describe, and apply responsibilities, core civic beliefs, and values present in a diverse society.

Scientific and Quantitative Reasoning (QR): To identify and apply mathematical and scientific principles and methods.

Additional Course Competencies:
At the conclusion of this course, students will be able to demonstrate the following additional competencies:

Learning Outcomes	Assessments	Gen. Ed. Competencies
Apply properties of exponential expressions to solve exponential equations and interpret the solutions.	Quizzes and/or Homework and/or Tests and/ or Project and/or Group Assignments	CT, TIM, COM, GSR
Sketch and analyze the graph of an exponential function.	Quizzes and/or Homework and/or Tests and/or Group Assignments	CT, COM, QR
Apply properties of logarithmic expressions to solve logarithmic equations and interpret the solutions.	Quizzes and/or Homework and/or Tests and/ or Project and/or Group Assignments	CT, TIM, COM, GSR
Sketch and analyze the graph of a logarithmic function.	Quizzes and/or Homework and/or Tests and/or Group Assignments	CT, COM, QR
Determine the linear factorization of a given polynomial.	Quizzes and/or Homework and/or Tests	QR, CT, TIM,
Determine the complex zeros and the real zeros of a polynomial.	Quizzes and/or Homework and/or Tests and/or Group Assignments	QR, CT, TIM
Sketch and analyze the graph of a polynomial function.	Quizzes and/or Homework and/or Tests and/or Group Assignments	CT, COM, QR
Determine any asymptotes, intercepts and other critical values of a function both algebraically and using technology.	Quizzes and/or Homework and/or Tests	QR, CT, TIM
Sketch and analyze the graph of a	Quizzes and/or Homework	CT, COM, QR

rational function.	and/or Tests and/or Group Assignments	
Determine the equation of a conic section when given its graph or characteristics of its graph. Graph the conic section, given its equation.	Quizzes and/or Homework and/or Tests	QR, CT
Analyze sequences and series using patterning, formulas, and/or technology.	Quizzes and/or Homework and/or Tests	QR, CT, TIM
Apply the principles of mathematical induction.	Project and/or Homework and/or Tests	QR, CT, COM
Apply the binomial theorem.	Quizzes and/or Homework and/or Tests	QR, CT
Use multiple approaches to solve systems of linear and non-linear equations and compare and contrast those approaches.	Quizzes and/or Homework and/or Tests and/or Group Assignments	QR, CT, TIM, COM
Perform matrix operations and find and use inverses and determinants.	Quizzes and/or Homework and/or Tests and/or Group Assignments	QR, CT
Use a graphing utility to determine a curve of best fit for given data.	Quizzes and/or Homework and/or Tests and/or Project.	QR, CT, TIM
Solve polynomial and rational inequalities graphically and algebraically.	Quizzes and/or Homework and/or Tests	QR, CT, TIM
Apply appropriate mathematical properties to graph and interpret continuous and piece-wise functions.	Quizzes and/or Homework and/or Tests and/or Group Assignments	CT

V. DISTRICT-WIDE POLICIES:

Programs for Students with Disabilities
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Hendry/Glades Ctr.	LaBelle H.S.	(863) 674-0408

VI. REQUIREMENTS FOR THE STUDENTS:
List specific course assessments, such as class participation, tests, homework assignments, make-up procedures, etc.

VII. ATTENDANCE POLICY:
The professor's specific policy concerning absence. (The College policy on attendance is in the Catalog, and defers to the professor.)

VIII. **GRADING POLICY:** Include numerical ranges for letter grades; the following is a range commonly used by many faculty:

90 – 100	=	A
80 – 89	=	B
79 – 70	=	C
60 – 69	=	D
Below 60	=	F

(Note: The "incomplete" grade ["I"] should be given only when unusual circumstances warrant. An "incomplete" is not a substitute for a "D," "F," or "W." Refer to the policy on "incomplete" grades.)

IX. **REQUIRED COURSE MATERIALS:**

X. **RESERVED MATERIALS FOR THE COURSE:** Other special learning resources.

XI. **CLAST COMPETENCIES INVOLVED IN THE COURSE:**

XII. **CLASS SCHEDULE:** This section includes assignments for each class meeting or unit, along with scheduled Learning Resource Center (LRC) media and other scheduled support, including scheduled tests.

XIII. **ANY OTHER INFORMATION OR CLASS PROCEDURES OR POLICIES:** which would be useful to the students in the class.

Revised 01/09

EDISON STATE COLLEGE
Division of Arts and Sciences

COMMON COURSE SYLLABUS

Professor: **Office Location:**

E-mail: **Phone Number:**

Office Hours: **Semester:**

I. COURSE NUMBER AND TITLE, CATALOG DESCRIPTION, CREDIT HOURS:

MGF 1106: Mathematics for Liberal Arts I – AA **3 Credits**

This course is intended to introduce the beauty and utility of mathematics to the general student population. Topics include systematic counting, probability, statistics, geometry, sets, and logic. This course is designed for those students whose majors do not require the technical mathematics sequence. If completed with a grade of "C" or better, this course serves to demonstrate competence for the general education mathematics requirement. The geometry component of this course should meet the requirements of 6a-5.066(3)1, Florida Administrative Rules, for education majors. It will enable the teacher to support the instruction of geometry and measurement as listed by the Sunshine State Standards.

II. PREREQUISITES FOR THE COURSE:

MAT 1033 with minimum grade of "C" **or** Testing

III. GENERAL COURSE INFORMATION: Topic Outline:

- Counting Principles
- Probability
- Statistics
- Geometry
- Sets
- Logic

IV. LEARNING OUTCOMES AND ASSESSMENT:

General Education Competencies:
General education courses must at least four of the following outcomes. All other courses will meet one or more of these outcomes.

At the conclusion of this course, students will be able to demonstrate the following competencies:

Communication (COM): To communicate (read, write, speak, listen) effectively using standard English and apply effective techniques to create working relationships with others to achieve common goals.

Critical Thinking (CT): To demonstrate skills necessary for analysis, synthesis, and evaluation.

Technology/Information Management (TIM): To demonstrate the skills and use the technology necessary to collect, verify, document, and organize information from a variety of sources.

Global Socio-cultural Responsibility (GSR): To identify, describe, and apply responsibilities, core civic beliefs, and values present in a diverse society.

Scientific and Quantitative Reasoning (QR): To identify and apply mathematical and scientific principles and methods.

Additional Course Competencies:
At the conclusion of this course, students will be able to demonstrate the following additional competencies:

Learning Outcomes	Assessments	Gen. Ed. Competencies
Represent sets using three different methods.	Homework and/or quizzes and/or tests and/or group assignments	QR,CT
Distinguish between equal and equivalent sets.		QR,CT
Create and interpret a Venn diagram.	Homework and/or quizzes and/or tests and/or group assignments and/or projects	QR,CT
Perform operations with sets.	Homework and/or quizzes and/or tests and/or group assignments	QR,CT
Apply the formula for the cardinality of the union of two sets.		QR,CT
Express simple and compound statements and their negations using symbolic logic.		QR,CT
Construct truth tables by using the definitions of negation, conjunction, and disjunction.	Homework and/or quizzes and/or tests and/or group assignments and/or projects	QR,CT
Determine the truth value of a conditional statement.	Homework and/or quizzes and/or tests and/or group assignments	QR,CT
Prove that statements are equivalent or not equivalent by using a truth table.		QR,CT
Examine the validity of an argument by using a truth table or an Euler diagram.		QR,CT
Solve problems involving angles formed by parallel lines and transversals.		QR,CT
Solve problems involving similar figures		QR,CT, TIM

and by using the Pythagorean Theorem.		
Convert units of measurement by using dimensional analysis.		QR,CT,TIM
Distinguish among quadrilaterals and other polygons by their unique characteristics.		QR,CT
Compute the areas of plane regions and volumes of three-dimensional figures by using formulas.		QR, CT,TIM
Students will be able to solve application problems involving area and volume.	Homework and/or quizzes and/or tests and/or group assignments and/or projects	QR,CT,TIM
Students will be able to identify missing parts of right triangles and solve application problems through the use of trigonometric ratios.	Homework and/or quizzes and/or tests and/or group assignments	QR, CT, TIM
Students will be able to determine the number of possible outcomes in a given situation by using the Fundamental Counting Principle.		QR,CT
Students will be able to calculate permutations and combinations by using their formulas.		QR,CT,TIM
Students will be able to solve application problems involving the Fundamental Counting Principle, permutations, and combinations.		QR,CT,TIM
Students will be able to compute theoretical and empirical probabilities including the probability of an event not occurring and conditional probabilities.		QR,CT
Students will be able to express and interpret the odds in favor and against an event occurring.		QR,CT
Students will be able to calculate and interpret expected value.		QR,CT,TIM, COM
Students will be able to organize and present statistical data.		QR,CT,TIM, COM
Students will be able to identify or calculate the mean, median, mode and midrange for a data set.	Homework and/or quizzes and/or tests and/or group assignments and/or projects	QR,CT,TIM
Students will be able to calculate and interpret the range and standard deviation for a data set.	Homework and/or quizzes and/or tests and/or group assignments	QR,CT,TIM, COM
Students will be able to construct and analyze a normal distribution for a given mean and standard deviation.		QR,CT,TIM, COM
Students will be able to calculate and interpret percentiles and Z-scores.		QR,CT,TIM, COM

V. **DISTRICT-WIDE POLICIES:**

Programs for Students with Disabilities
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Hendry/Glades Ctr.	LaBelle H.S.	(863) 674-0408

VI. **REQUIREMENTS FOR THE STUDENTS:** List specific course assessments, such as class participation, tests, homework assignments, make-up procedures, etc.

VII. **ATTENDANCE POLICY:** The professor's specific policy concerning absence. (The College policy on attendance is in the Catalog, and defers to the professor.)

VIII. **GRADING POLICY:** Include numerical ranges for letter grades; the following is a range commonly used by many faculty:

90 – 100	=	A
80 – 89	=	B
79 – 70	=	C
60 – 69	=	D
Below 60	=	F

(Note: The "incomplete" grade ["I"] should be given only when unusual circumstances warrant. An "incomplete" is not a substitute for a "D," "F," or "W." Refer to the policy on "incomplete" grades.)

IX. **REQUIRED COURSE MATERIALS:**

X. **RESERVED MATERIALS FOR THE COURSE:** Other special learning resources.

XI. **CLAST COMPETENCIES INVOLVED IN THE COURSE:**

XII. **CLASS SCHEDULE:** This section includes assignments for each class meeting or unit, along with scheduled Learning Resource Center (LRC) media and other scheduled support, including scheduled tests.

XIII. **ANY OTHER INFORMATION OR CLASS PROCEDURES OR POLICIES:** which would be useful to the students in the class.

Revised 01/09

EDISON STATE COLLEGE
Division of Arts and Sciences

COMMON COURSE SYLLABUS

Professor: **Office Location:**

E-mail: **Phone Number:**

Office Hours: **Semester:**

I. COURSE NUMBER AND TITLE, CATALOG DESCRIPTION, CREDIT HOURS:

MTB 1308: TI Graphing Calculators – AA **1 Credit**

This is an introductory course in using the Texas Instrument graphing calculators currently approved by the mathematics department. No previous knowledge of the calculator is expected or required. This course is especially appropriate for those who wish to take advantage of the advanced features of the TI Series calculators. This course may be offered as a workshop or in a distance learning format.

II. PREREQUISITES FOR THE COURSE: None

III. GENERAL COURSE INFORMATION: Topic Outline:

- Perform basic calculations on the calculator.
- Use Catalog menu and programming features on the calculator.
- Perform graphing operations on the calculator.
- Perform statistical operations using the calculator.
- Perform linear regression on two-variable data on the calculator.

IV. LEARNING OUTCOMES AND ASSESSMENT:

General Education Competencies:
General education courses must meet at least four of the following outcomes. All other courses will meet one or more of these outcomes.

At the conclusion of this course, students will be able to demonstrate the following competencies:

Communication (COM): To communicate (read, write, speak, and listen) effectively using standard English and apply effective techniques to create working relationships with others to achieve common goals.

Critical Thinking (CT): To demonstrate skills necessary for analysis, synthesis, and evaluation.

Technology/Information Management (TIM): To demonstrate the skills and use the technology necessary to collect, verify, document, and organize information from a variety of sources.

Global Socio-cultural Responsibility (GSR): To identify, describe, and apply responsibilities, core civic beliefs, and values present in a diverse society.

Scientific and Quantitative Reasoning (QR): To identify and apply mathematical and scientific principles and methods.

Additional Course Competencies:
At the conclusion of this course, students will be able to demonstrate the following additional competencies:

Learning Outcomes	Assessments	Gen. Ed. Competences
Perform basic function of the calculator including screen contrast, entering/editing expressions, and storing and recalling values.	Demonstrate competency via one or more of the following assessment techniques: Homework Lab Test Classroom Demonstration Quiz	TIM, QR
Perform basic arithmetic operations and evaluate algebraic functions on the calculator including expressions with fractions, radicals, exponents, and scientific notation.		TIM, QR
Access the catalog for built-in functions.		TIM, QR
Create and edit a program on the calculator.		TIM, QR
Utilize the graphing features of the calculator to graph functions and equations, set the window, zoom, trace, and find intersection points or zeroes.		TIM, QR, CT
Use the graphing calculator to solve linear equations and inequalities, and systems of linear equations and inequalities.		TIM, QR
Use the graphing calculator to perform statistical operations on one-variable data: frequency distribution, histogram, mean, standard deviation, median, maximum, minimum, quartiles, and sort.		TIM, QR, CT
Use the graphing calculator to perform linear regression on two-variable data.		TIM, QR
Demonstrate the use of the calculator manual to determine appropriate keystrokes.		TIM, COM

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IX. **REQUIRED COURSE MATERIALS:**

X. **RESERVED MATERIALS FOR THE COURSE:** Other special learning resources.

XI. **CLAST COMPETENCIES INVOLVED IN THE COURSE:**

XII. **CLASS SCHEDULE:** This section includes assignments for each class meeting or unit, along with scheduled Learning Resource Center (LRC) media and other scheduled support, including scheduled tests.

XIII. **ANY OTHER INFORMATION OR CLASS PROCEDURES OR POLICIES:** which would be useful to the students in the class.

Revised 01/09