EDISON STATE COLLEGE

CURRICULUM COMMITTEE
CHANGE OF COURSE PROPOSAL FORM

TO: **CURRICULUM COMMITTEE**
FROM: Theo Koupelis
PRESENTER: JoAnn Lewin
DATE: 2/27/09

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: **MAC 1114: Trigonometry**

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: **MAC 1105 with a minimum grade of "C" or appropriate CLM score** to **{MAC 1105 or MAC 1106} with a minimum grade of "C," or appropriate CLM score**

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:

Some students take MAC 1106 (which combines the content of MAC 1105 and MAC 1140) instead of MAC 1105, and adding the second choice in the prerequisites simply makes them more complete.

This course is under review but the work has not been completed. As such, we need to correct the prerequisites before the new Catalog comes out. The reviewed and updated syllabus will be presented to this Committee at its next meeting. As such, it would be appreciated if any questions about items unrelated to this request for prerequisites change are kept for the next meeting.

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.

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 COLLEGE
Arts & Sciences

COMMON COURSE SYLLABUS

Professor: **Office Location:**

E-mail: **Phone Number:**

Office Hours: **Semester:**

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

MAC 1114 – Trigonometry – AA **3 Credits**

Topics in this class include the real number system, circular functions, trigonometric functions, inverse relations and functions, trigonometric graphs, solutions of triangles and trigonometric equations, polar coordinates, and complex numbers. The course contains all of the features of trigonometry found in MAC 1147, with additional emphasis on applications. A graphing calculator is required. (May be taken concurrently with MAC 1140). 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

- The trigonometric functions
- Acute angles and right triangles
- Radian measure and the circular functions
- Graphs of the circular functions
- Trigonometric identities
- Applications of Trigonometry and Vectors
- Complex Numbers and Polar Equations

IV. LEARNING OUTCOMES AND ASSESSMENT:

A. *General Education Competencies:*
General education courses must meet all 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: Students will fulfill this competency by presenting orally or writing a solution to a problem involving trigonometry and by participating in a collaborative assignment.

Critical Thinking (CT): To demonstrate skills necessary for analysis, synthesis, and evaluation: Students will fulfill this competency by proving a trigonometric identity.

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: Students will fulfill this competency by using a graphing calculator to analyze and graph a trigonometric function.

Global Socio-cultural Responsibility (GSR): To identify, describe, and apply responsibilities, core civic beliefs, and values present in a diverse society: Students will fulfill this competency by completing assignments in a timely manner, and adhering to class and department policies.

Scientific and Quantitative Reasoning (QR): To identify and apply mathematical and scientific principles and methods: Students will fulfill this competency by solving and interpreting the solution to a trigonometric equation.

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

Learning Outcomes	Assessments
Students will be able to convert angle measures between degrees and radians.	Students will demonstrate competency via one or more of the following assessment techniques: Written Assignments Presentations Homework Labs Group assignments Projects Quizzes Tests Final examination
Students will be able to apply appropriate right triangle and/or unit circle trigonometric function definitions to determine the values of a variety of trigonometric functions.	
Students will be able to identify properties such as domain and range for each trigonometric function.	
Students will be able to evaluate trigonometric functions for special angles.	
Students will be able to evaluate trigonometric functions of any angle.	
Students will be able to apply the fundamental trigonometric identities.	
Students will be able to apply double, half-angle, and sum and difference identities.	
Students will be able to solve right triangles using definitions of the trigonometric functions and oblique triangles using the Law of Sines and the Law of Cosines.	
Students will be able to analyze and graph trigonometric functions and identify such properties as amplitude, period, phase shift, and vertical shifts, when appropriate.	
Students will be able to evaluate and use inverse trigonometric functions and identify their graphs.	
Students will be able to solve application problems using trigonometry.	
Students will be able to prove trigonometric identities.	
Students will be able to solve trigonometric equations.	

Students will be able to perform basic vector operations.	
Students will be able to sketch a curve that is represented by a set of parametric equations.	
Students will be able to graph polar equations, and convert points and equations from polar form to rectangular form and vice versa.	

V. DISTRICT-WIDE POLICIES

Programs for Students with Disabilities
Edison 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.

Lee Campus	Taeni Hall S-116A	(239) 489-9427
Charlotte Campus	Student Services SS-101	(941) 637-5626
Collier Campus	Admin. Bldg. A-116	(239) 732-3918
Hendry/Glades Ctr.	LaBelle H.S.	(863) 674-0408

Religious Observance
Per Section 1006.53, Florida Statutes, the Edison College policy on observance of religious holy days provides that students shall, upon notifying their instructors is excused from class to observe religious holy days of their faith. The student will be held responsible for any material covered during the excused absence, but will be permitted a reasonable amount of time to complete any work missed. Students who believe this policy has been improperly applied should address their grievances to an appropriate Dean or Associate Dean.

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.

EDISON STATE COLLEGE

CURRICULUM COMMITTEE
CHANGE OF COURSE PROPOSAL FORM

TO: **CURRICULUM COMMITTEE**
FROM: Theo Koupelis
PRESENTER: JoAnn Lewin
DATE: 2/27/09

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: **MAC 1147: Precalculus Algebra/Trigonometry**

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

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:

MAC 1147 (5 credits) is a combination of MAC 1140 and MAC 1114 (each a 3-cr class). As such, for a student to be successful, s/he must be better prepared compared to a student who is taking only MAC 1140 or only MAC 1114.

This course is under review but the work has not been completed. As such, we need to correct the prerequisites before the new Catalog comes out. The reviewed and updated syllabus will be presented to this Committee at its next meeting. As such, it would be appreciated if any questions about items unrelated to this request for prerequisite change are kept for the next meeting.

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.

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:** _____

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EDISON COLLEGE
Arts & Sciences

COMMON COURSE SYLLABUS

Professor: **Office Location:**

E-mail: **Phone Number:**

Office Hours: **Semester:**

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

MAC 1147 – Pre-Calculus Algebra/Trigonometry - AA **5 Credits**

The course is designed for students with strong mathematical backgrounds who need a refresher course before beginning the Calculus sequence. Topics covered are a combination of topics from MAC 1140 and MAC 1114. 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

- Exponential and logarithmic functions
- Polynomial and rational functions
- Conic sections
- Sequences and series
- Mathematical induction
- The binomial theorem
- Matrices
- Trigonometric functions
- Acute angles and right triangles
- Radian measure and the circular functions
- Graphs of trigonometric functions
- Trigonometric identities
- Applications of trigonometry and vectors
- Complex numbers and polar equations

IV. LEARNING OUTCOMES AND ASSESSMENT:

A. *General Education Competencies:*
General education courses must meet all 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: Students will fulfill this competency by presenting orally or in writing a solution to a problem involving pre-calculus or trigonometry and by participating in a collaborative assignment.

Critical Thinking (CT): To demonstrate skills necessary for analysis, synthesis, and evaluation: Students will fulfill this competency by using algebra to analyze and graph a given function.

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: Students will fulfill this competency by analyzing and collecting data algebraically and confirming using technology.

Global Socio-cultural Responsibility (GSR): To identify, describe, and apply responsibilities, core civic beliefs, and values present in a diverse society: Students will fulfill this competency by completing assignments in a timely manner, and adhering to class and department policies.

Scientific and Quantitative Reasoning (QR): To identify and apply mathematical and scientific principles and methods: Students will fulfill this competency by solving and interpreting the solution of a trigonometric equation.

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

Learning Outcomes	Assessments
Students will be able to:	Students will demonstrate competency via one or more of the following assessment techniques: Written Assignments Presentations Homework Labs Group assignments Projects Quizzes Tests Final examination
Students will be able to apply appropriate mathematical properties to graph continuous and piece-wise functions.	
Students will be able to determine the equation of conic sections given appropriate information.	
Students will be able to sketch and analyze the graph of an exponential, logarithmic, polynomial, and rational function.	
Students will be able to determine any asymptotes, intercepts and other critical values of a function both algebraically and using technology.	
Students will be able to determine complex zeros and real zeros of a polynomial.	
Students will be able to factor polynomials into linear factors.	
Students will be able to solve, interpret, and verify exponential and logarithmic equations.	
Students will be able to use multiple approaches to solve systems of equations.	
Students will be able to apply algebraic properties to matrices.	
Students will be able to analyze sequences and series using patterning, formulas, and/or technology.	
Students will be able to apply the principles of mathematical induction.	
Students will be able to apply the binomial theorem.	

Students will be able to use technology to fit a curve to given data.	
Students will be able to convert angle measures between degrees and radians.	
Students will be able to apply appropriate right triangle and/or unit circle trigonometric function definitions to determine the values of a variety of trigonometric functions.	
Students will be able to identify properties such as domain and range for each trigonometric function.	
Students will be able to evaluate trigonometric functions for special angles.	
Students will be able to evaluate trigonometric functions of any angle.	
Students will be able to state and apply the fundamental trigonometric identities.	
Students will be able to apply double, half-angle, and sum and difference identities.	
Students will be able to solve a right triangle using definitions of the trigonometric functions and oblique triangles using the Law of Sines and the Law of Cosines.	
Students will be able to analyze and graph trigonometric functions and identify such properties as amplitude, period, phase shift, and vertical shifts, when appropriate.	
Students will be able to evaluate and use inverse trigonometric functions and identify their graphs.	
Students will be able to solve application problems using trigonometry.	
Students will be able to prove trigonometric identities.	
Students will be able to solve trigonometric equations.	
Students will be able to perform basic vector operations.	
Students will be able to sketch a curve that is represented by a set of parametric equations.	
Students will be able to graph polar equations and convert points and equations from polar form to rectangular form and vice versa.	

V. DISTRICT-WIDE POLICIES

Programs for Students with Disabilities

Edison 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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Charlotte Campus	Student Services SS-101	(941) 637-5626
Collier Campus	Admin. Bldg. A-116	(239) 732-3918
Hendry/Glades Ctr.	LaBelle H.S.	(863) 674-0408

Religious Observance
Per Section 1006.53, Florida Statutes, the Edison College policy on observance of religious holy days provides that students shall, upon notifying their instructors is excused from class to observe religious holy days of their faith. The student will be held responsible for any material covered during the excused absence, but will be permitted a reasonable amount of time to complete any work missed. Students who believe this policy has been improperly applied should address their grievances to an appropriate Dean or Associate Dean.

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.

EDISON STATE COLLEGE

CURRICULUM COMMITTEE
CHANGE OF COURSE PROPOSAL FORM

TO: **CURRICULUM COMMITTEE**
FROM: Theo Koupelis
PRESENTER: JoAnn Lewin
DATE: 2/27/09

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: **MAP 2302: Differential Equations**

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: **MAC 2312 or permission of instructor** to **MAC 2312 with a minimum grade of "C"**

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:

This is a simple clarification to the existing prerequisite, bringing it in line with all other courses as to the minimum grade that signifies successful completion of a previous class.

This course is under review but the work has not been completed. As such, we need to correct the prerequisites before the new Catalog comes out. The reviewed and updated syllabus will be presented to this Committee at its next meeting. As such, it would be appreciated if any questions about items unrelated to this request for prerequisite change are kept for the next meeting.

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.

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: _____

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EDISON COLLEGE
Arts & Sciences

COMMON COURSE SYLLABUS

Professor: **Office Location:**

E-mail: **Phone Number:**

Office Hours: **Semester:**

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

MAP 2302 – Differential Equations – AA **4 Credits**

This course presents methods of solutions for first order equations. Selected applications also covered are Linear equations, Laplace transforms, and series solutions. A graphing calculator, TI86, or equivalent, 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 2312 **or** permission of instructor

III. GENERAL COURSE INFORMATION: Topic Outline

- Identification of dependent, independent, linear, and non-linear equations
- Separation of variables
- Substitution techniques
- Exact Differential Equations
- Integrating Factors
- Higher Order Differential Equations
- Undetermined Coefficients
- Laplace Transforms
- Inverse Transforms
- Application of Differential Equations
- Shifting theorems
- Derivatives and integrals of Laplace transforms

IV. LEARNING OUTCOMES AND ASSESSMENT:

General Education Competencies:
General education courses must meet all 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: Students will fulfill this competency by presenting and/or evaluating solution techniques for differential equations and by being involved in collaborative projects.

Critical Thinking (CT): To demonstrate skills necessary for analysis, synthesis, and evaluation: Students will fulfill this competency by analyzing an applied problem and choosing the appropriate measures of solution.

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: Students will fulfill this competency by using computer software and graphing calculators to display graphical or numerical solutions.

Global Socio-cultural Responsibility (GSR): To identify, describe, and apply responsibilities, core civic beliefs, and values present in a diverse society: Students will fulfill this competency by discussing course rules and student responsibilities.

Scientific and Quantitative Reasoning (QR): To identify and apply mathematical and scientific principles and methods: Students will fulfill this competency by classifying, solving and interpreting the results of theoretical and applied differential equations.

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

Competency	Assessment
Students will be able to classify differential equations.	Students will demonstrate competency via one or more of the following assessment techniques: Written Assignments Presentations Homework Labs Group assignments Projects Quizzes Tests Final examination
Students will be able to solve differential equations using separation of variables.	
Students will be able to find solutions using exact equations.	
Students will be able to complete solutions of differential equations using integrating factors.	
Students will be able to determine solutions for higher order differential equations.	
Students will be able to use the method of variation of parameters to solve equations.	
Students will be able to solve higher order equations using the annihilator approach.	
Students will be able to find solutions to special forms of differential equations using Bernoulli's method.	
Students will be able to solve applications involving damping, boundary-value problems and circuits.	
Students will be able to use Laplace transforms and inverse Laplace transforms to solve differential equations.	
Students will be able to demonstrate the shifting theorems.	
Students will be able to translate and graph the unit step function.	
Students will be able to complete series solutions to differential equations.	

V. **DISTRICT-WIDE POLICIES**

Programs for Students with Disabilities

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Religious Observance

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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
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(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.

EDISON STATE COLLEGE

CURRICULUM COMMITTEE
CHANGE OF COURSE PROPOSAL FORM

TO: **CURRICULUM COMMITTEE**
FROM: Theo Koupelis
PRESENTER: Theo Koupelis
DATE: 2/27/09

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: **BSC 1080: Human Biology: An Overview for Health Science Professionals**

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
College level placement test scores or completion of developmental courses: {English (ACT 17, SAT 440, CPT 83) or minimum of a "C" in ENC 9020 or ENC 9021}; {Reading (ACT 18, SAT 440, CPT 83) or a minimum of a "C" in REA 9003}
to
College level placement test scores or successful completion of all developmental reading and writing courses and corresponding state exit exams

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 change in the title (from "Human Biology: An Overview for Health Professions" to "Human Biology: An Overview for Health Science Professionals") brings it more in line with state guidelines.

The prerequisites as proposed are a simpler version of the existing prerequisites.

The learning outcomes and corresponding assessments for this course are currently being examined by the Learning Outcomes Associate.

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 is supported by all faculty teaching our A&P courses.

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:

BSC 1080: Human Biology: An Overview for Health Science Professionals – AS 2 Credits

This team-taught course has two broad purposes: first, to provide a firm foundation in cellular biological processes that is essential to success in the study of human anatomy and physiology; second, to provide information that will enable the health-sciences student to differentiate between the requirements and professional roles unique to each of the degrees in the health professions.

II. PREREQUISITES FOR THE COURSE:

College level placement test scores or successful completion of all developmental reading and writing courses and corresponding state exit exams

III. GENERAL COURSE INFORMATION: Topic Outline:

- Science as a Foundation for Health Professions
- Characteristics of Living Things
- Biochemistry
- Cell structure and function
- Energy production
- Cellular Reproduction
- Human Genetics
- Evolution
- The Health Professions
- Preparing for a Health Career

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 the course, students will be able to demonstrate the following additional competencies:

Learning Outcomes	Assessments	Gen. Ed. Competencies
Describe the characteristics of living organisms.	Successful completion of assignments and/or projects, and multiple choice and/or short answer quizzes/tests.	COM
Describe the structure of atoms, molecules, and ions.		COM
Describe how and why atoms form chemical bonds.		COM
Describe the physical characteristics of water and explain how water plays a role in biological processes.		COM, CT
Define pH and describe the characteristics of acids and bases.		COM
Compare and contrast the four biological macromolecules, their monomers and functions.		CT
Identify and describe the functions of the eukaryotic cell organelles, describe the cell membrane, and differentiate the various transport processes.		COM
Describe the role of enzymes in metabolism, and compare and contrast aerobic and anaerobic respiration.		CT

Describe cell division in somatic and reproductive cells.		COM
Describe how Mendel's Laws influence human hereditary patterns.		CT
Describe and appraise the world-wide public health, social, and economic consequences of the AIDS epidemic.	Completion of an evaluation of on-line reports about the AIDS epidemic and an essay assignment that discusses how the AIDS epidemic has impacted the economy, health infrastructure, and social fabric of third world countries.	CT, GSR, TIM
Differentiate between requirements for the eight Health Professions Programs offered at Edison State College.	Completion of an Educational Plan for a particular health profession.	COM
Articulate the professional role of at least one Health Profession.	Development of a personal essay describing the reasons behind the choice of a particular health profession and a plan to pursue one's professional goals.	COM

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 needing 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.

Lee Campus	Taeni Hall S-116A	(239) 489-9427
Charlotte Campus	Student Services SS-101	(941) 637-5626
Collier Campus	Admin. Bldg. A-116	(239) 732-3918
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
70 – 79	=	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 Edison Catalog for 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:

Include other info/procedures/policies that would be useful to the students in the class, if appropriate.

Revised 01/09

EDISON STATE COLLEGE

CURRICULUM COMMITTEE
CHANGE OF COURSE PROPOSAL FORM

TO: **CURRICULUM COMMITTEE**
FROM: Theo Koupelis
PRESENTER: Theo Koupelis
DATE: 2/27/09

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)** The study of the endocrine system has been added to this course

Course Name, including prefix and number: **BSC 1093C: Anatomy and Physiology I**

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
Minimum grade of a "C" in BSC 1080 and College level placement scores or completion of developmental courses: {Math (ACT 23, SAT 540, CPT 90) or minimum of a "C" in Mat 1033} OR minimum grade of a "C" in BSC 1010
to
Minimum grade of a "C" in {BSC 1080 or BSC 1010} and successful completion of all developmental reading and writing courses and corresponding state exit exams. BSC 1010 is strongly recommended.

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 consensus of our faculty teaching this course is that the study of the endocrine system is important to be included in BSC 1093C and will continue in BSC 1094C.

The prerequisites as proposed are a simpler version of the existing prerequisites. The addition of the recommendation is meant to better guide students.

The learning outcomes and corresponding assessments for this course are currently being examined by the Learning Outcomes Associate.

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 is supported by all faculty teaching our A&P courses.

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:

BSC 1093C: Anatomy and Physiology I – AA **4 Credits**

This is an advanced combined lecture/lab course designed for students in the biological, medical, and health-related fields. This course expands upon general biological concepts including: inorganic and organic chemistry, biochemistry, cell structure and function, metabolism and genetic mechanisms. These concepts are applied to the structure and function of the human body. This course also covers: introduction to anatomy, tissues, integumentary system, skeletal system, muscular system, nervous system, special senses, and the endocrine system.

II. PREREQUISITES FOR THE COURSE:

Minimum grade of a "C" in {BSC 1080 or BSC 1010} and successful completion of all developmental reading and writing courses and corresponding state exit exams. BSC 1010 is strongly recommended.

III. GENERAL COURSE INFORMATION: Topic Outline:

- Introduction to anatomy and physiology
- Tissues
- Integumentary system
- Skeletal system
- Muscular system
- Nervous system
- Special senses
- Endocrine system

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
Define homeostasis, explain homeostatic control mechanisms, and give examples of conditions that are maintained in the human body.	Lecture exam.	COM, CT
Use correctly anatomical terminology.	Successful completion of the appropriate lab exercise and utilization of appropriate terminology throughout the course.	COM
Compare and contrast the characteristics, classification, location, and function of the four primary tissues and use correctly a microscope to identify tissues.	Successful completion of the appropriate lab exercise, lab practical and lecture exam.	COM, CT
Describe the structure and summarize the functions of the integumentary system.	Lecture exam.	COM
Differentiate the two ossification processes and summarize the events involved in the remodeling and repair of bones.	Lecture exam.	COM, CT
Identify the bones and major bone markings on the axial and appendicular skeleton.	Successful completion of the appropriate lab exercise and a lab practical exam.	COM, GSR*, TIM

Describe the structure of various joints, demonstrate the types of movements these joints allow, and describe the factors that determine the stability of joints.	Successful completion of the following: appropriate lab exercises; lecture exam; lab exam or lecture exam with a lab component; assigned research paper (report), if appropriate.	COM, CT, GSR*, TIM
Describe gross anatomy and the microscopic anatomy of skeletal muscle and describe the mechanism of contraction of a skeletal muscle cell.	Lecture exam.	COM, CT
Describe skeletal muscle metabolism, sketch aerobic and anaerobic cellular respiration, and explain the effect of exercise on muscles.	Successful completion of the following: appropriate lab exercises; lecture exam; lab exam or lecture exam with a lab component; assigned research paper (report), if appropriate.	COM, GSR*, TIM
Identify the major muscles of the body on models and demonstrate their actions.	Successful completion of the appropriate lab exercise and a lab practical exam.	COM
Describe the characteristics, structure, and function of the nervous system cells (including neurons and glial cells), appraise their differences, and summarize how neurons transmit information to other cells.	Successful completion of the following: appropriate lab exercises; lecture exam; lab exam or lecture exam with a lab component; assigned research paper (report), if appropriate.	COM, CT, GSR*, TIM
Describe the structure and function of the central nervous system (CNS), analyze how information is processed and conducted throughout the CNS, identify how the CNS is protected, and identify and describe the function of the cranial nerves.	Successful completion of the following: a brain dissection; lecture exam; lab exam or lecture exam with a lab component; assigned research paper (report), if appropriate.	COM, CT, GSR*, TIM
Describe the components of the peripheral nervous system (PNS) and discuss how they convey sensory information to the CNS and motor output to effector organs; also, identify and describe the function of the spinal nerves.	Successful completion of the following: appropriate lab exercises; lecture exam; lab exam or lecture exam with a lab component; assigned research paper (report), if appropriate.	COM, CT, GSR*, TIM
Construct the components of a reflex arc, discuss the function and importance of spinal reflexes, and demonstrate given reflexes.	Successful completion of the appropriate lab and lecture exam.	COM, CT
Compare and contrast the somatic	Successful completion of the	COM, CT, GSR*,

and autonomic nervous systems (ANS) and compare and contrast the structure and function of the sympathetic and parasympathetic branches of the ANS.	following: appropriate lab exercises; lecture exam; lab exam or lecture exam with a lab component; assigned research paper (report), if appropriate.	TIM
Describe the structure and function of the special sense organs, and analyze how they convert sensory information into nerve impulses and how the input is integrated.		COM, CT, GSR*, TIM
Identify the major endocrine organs, describe each of their hormones and the control of their release, and analyze the role of each hormone in homeostasis.		COM, CT, GSR*, TIM

*This competency corresponds to the outcome for which the research paper (report) will be assigned (if appropriate).

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 needing 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.

Lee Campus	Taeni Hall S-116A	(239) 489-9427
Charlotte Campus	Student Services SS-101	(941) 637-5626
Collier Campus	Admin. Bldg. A-116	(239) 732-3918
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

70 – 79	=	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 Edison Catalog for 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:

Include other info/procedures/policies that would be useful to the students in the class, if appropriate.

Revised 01/09

EDISON STATE COLLEGE

CURRICULUM COMMITTEE
CHANGE OF COURSE PROPOSAL FORM

TO: **CURRICULUM COMMITTEE**
FROM: Theo Koupelis
PRESENTER: Theo Koupelis
DATE: 2/27/09

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: **BSC 1094C: Anatomy and Physiology II**

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 **BSC 1093C with a grade of "C" or better** to **Minimum grade of a "C" in BSC 1093C and completion of all developmental courses and corresponding state exit exams.**

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 language of the proposed prerequisites is meant to be similar to that of BSC 1093C while adding the need of completing developmental math courses.

The learning outcomes and corresponding assessments for this course are currently being examined by the Learning Outcomes Associate.

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 is supported by all faculty teaching our A&P courses.

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: _____

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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:

BSC 1094C: Anatomy and Physiology II – AA **4 Credits**

This is a combined lecture/lab course format designed to be the sequel to BSC 1093C. This course examines how the body's organ systems work together to maintain homeostasis. The following topics are covered: summary of endocrine system, cardiovascular system, lymphatic and immune systems, respiratory system, digestive system, nutrition, urinary system, fluids, electrolytes, and acid-base balance, reproduction, growth and development.

II. PREREQUISITES FOR THE COURSE:

Minimum grade of a "C" in BSC 1093C and successful completion of all developmental courses and corresponding state exit exams.

III. GENERAL COURSE INFORMATION: Topic Outline:

- Summary of endocrine system
- Cardiovascular system
- Lymphatic and immune system
- Respiratory system
- Digestive system
- Nutrition
- Urinary system
- Fluids, electrolytes and acid-base balance
- Reproductive system
- Growth and development

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 the course, students will be able to demonstrate the following additional competencies:

Learning Outcomes	Assessments	Gen. Ed. Competencies
Analyze the composition, physical characteristics and functions of blood, and explain the process of hemostasis and the associated disorders.	Successful completion of the following: appropriate lab exercises; lecture exam; lab exam or lecture exam with a lab component; assigned research paper (report), if appropriate.	COM, CT, GSR*, TIM
Describe the gross and microscopic anatomy of the heart, sketch the pathway of blood through the heart, and describe the contraction of cardiac muscle cells.	Successful completion of the following: dissection of a preserved heart; lecture exam; lab exam or lecture exam with a lab component; assigned research paper (report), if appropriate.	COM, GSR*, TIM
Explain how the cardiac conduction system controls cardiac contraction and show correlations to the events of the cardiac cycle.	Successful completion of the following: appropriate lab exercises; lecture exam; lab exam or lecture exam with a lab component; assigned research paper (report), if appropriate.	COM, CT, GSR*, TIM
Calculate cardiac output and describe associated homeostatic imbalances.		COM, QR, GSR*, TIM
Describe the structure of blood vessels and outline and categorize the factors affecting blood flow, the control of blood flow through the body tissues, and the movement of fluids and		COM, CT, GSR*, TIM

nutrients across the capillary wall.		
Identify the major blood vessels and circulatory pathways on models.	Successful completion of a lab practical exam.	COM
Describe the structure and function of lymphoid cells, tissues, vessels and organs and explain the formation of lymph.	Successful completion of the following: appropriate lab exercises; lecture exam; lab exam or lecture exam with a lab component; assigned research paper (report), if appropriate.	COM, GSR*, TIM
Summarize the first and second line of nonspecific defense mechanisms and compare and contrast antibody mediated and cell mediated immunity.		COM, CT, GSR*, TIM
Describe the structure and function of the respiratory system organs, the mechanics of breathing, the control of ventilation, and the respiratory volumes and capacities.	Successful completion of the following: spirometry in the lab; lecture exam; lab exam or lecture exam with a lab component; assigned research paper (report), if appropriate.	COM, CT, QR, GSR*, TIM
Compare and contrast the structure, function, and control of the digestive system organs.	Successful completion of the following: appropriate lab exercises; lecture exam; lab exam or lecture exam with a lab component; assigned research paper (report), if appropriate.	COM, GSR*, TIM
Use the current Food Guide Pyramid to design a diet plan and analyze your diet, and list the vitamins and minerals, explaining their role in the body.		COM, CT, GSR*, TIM
Describe the structure and function of the urinary system organs, identify urinary system structures on models, and explain how dilute and concentrated urine are formed.		COM, CT, GSR*, TIM
Summarize water, electrolyte, and acid-base balance and their effect on homeostasis.		COM, CT, GSR*, TIM
Describe blood pressure homeostasis by correlating the neuronal and hormonal control mechanisms for cardiac output, peripheral resistance, and blood volumes.	Successful completion of the following: appropriate lab exercises; lecture exam; lab exam or lecture exam with a lab component; assigned research paper (report), if appropriate.	COM, CT, GSR*, TIM
Describe the structure and function of the male and female reproductive organs and identify these organs on models.		COM, GSR*, TIM
Sketch spermatogenesis, oogenesis, ovarian cycle, and the uterine cycle and explain		COM, CT, GSR*, TIM

the hormonal control of the male and female reproductive systems.		
Describe the events in fertilization and the progression of fetal development events.		COM, GSR*, TIM

*This competency corresponds to the outcome for which the research paper (report) will be assigned (if appropriate).

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 needing 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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Charlotte Campus	Student Services SS-101	(941) 637-5626
Collier Campus	Admin. Bldg. A-116	(239) 732-3918
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
70 – 79	=	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 Edison Catalog for 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:

Include other info/procedures/policies that would be useful to the students in the class, if appropriate.

Revised 01/09

EDISON STATE COLLEGE

CURRICULUM COMMITTEE
CHANGE OF COURSE PROPOSAL FORM

TO: **CURRICULUM COMMITTEE**
FROM: Theo Koupelis
PRESENTER: Theo Koupelis
DATE: 2/27/09

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: **CHM 2025: Introduction to College Chemistry** and **CHM 2025L: Introduction to College Chemistry Laboratory**

Class credits: from to

Lab credits: from **3** to **1** (**for CHM 2025L**)

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 **None** to **Successful completion of all developmental courses and state exit exams**

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 proposed prerequisites better describe the preparation level that students need to have in order to succeed in these classes.

The change in credits for CHM 2025L is meant to bring it in line with the overall change in all science courses with lab components, as discussed at the previous meeting of this committee.

The learning outcomes and corresponding assessments for this course are currently being examined by the Learning Outcomes Associate.

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 is supported by all faculty teaching our Chemistry courses.

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:

CHM 2025: Introduction to College Chemistry – AA **3 Credits**

This one semester course is designed to prepare students planning to enter the CHM 2045/2046 sequence. Topics to be covered include matter, energy, measurements, problem solving techniques, the atom, the Periodic Table, chemical bonding, chemical formulas, chemical reactions, stoichiometry, gases, liquids, solutions, acids and bases, equilibrium, kinetics and thermodynamics.

II. PREREQUISITES FOR THE COURSE:

Successful completion of all developmental courses and corresponding state exit exams

Co-requisite: CHM 2025L

III. GENERAL COURSE INFORMATION: Topic Outline:

- Chemistry and the scientific method
- Matter and energy
- Atomic theory and structure, including atomic mass and electronic structure
- Periodic table of the elements, including atomic and molecular properties
- Chemical bonding: ionic and covalent
- Chemical formulas, reactions, and equations, including stoichiometry
- Properties of and laws for gases
- Liquids and solids, including phase changes and associated energy aspects
- Solutions, including molar concentration
- Acids and bases, including Arrhenius theory and pH
- Survey of kinetics, equilibrium, and thermodynamics

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 the 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
Explain the general nature of chemistry and the scientific method.	Successful completion of any or all of the following: quizzes, examinations, and homework problems.	GSR
Categorize and distinguish between physical and chemical properties and changes, and differentiate between matter and some common forms of energy.		CT
Describe modern atomic theory and the development of the Periodic Table of the elements and periodic properties of the elements.		CT
Classify and balance chemical reactions and explain the concept of ionic mobility and how it relates to the electrolytic behavior of ionic compounds dissolved in water.		CT
Perform calculations based on chemical compounds and their reactions.		CT, QR, TIM
Distinguish between ionic and covalent bonding, represent substances by Lewis structures, and predict molecular shapes via the VSEPR method.		CT
Apply selected gas laws and to calculate changes in properties of gases, including reactions involving gases.		CT, QR
Distinguish between various intermolecular attractive forces and their effect on physical states, including energetics of phase changes.		CT,QR

Use basic solution terminology, including the concept of molarity and its use in calculations involving solutions.		CT, QR, TIM
Identify an acid and a base and apply the pH scale as a measure of acidity.		CT
Identify the major factors affecting reaction rates and understand the concept of chemical equilibrium.		CT
Recognize selected aspects of the terminology of thermodynamics, including the major contributing factors to spontaneous chemical and physical changes.		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 needing 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.

Lee Campus	Taeni Hall S-116A	(239) 489-9427
Charlotte Campus	Student Services SS-101	(941) 637-5626
Collier Campus	Admin. Bldg. A-116	(239) 732-3918
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
70 – 79	=	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 Edison Catalog for 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:

Include other info/procedures/policies that would be useful to the students in the class, if appropriate.

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:

CHM 2025L: Introduction to College Chemistry Laboratory – AA 1 Credit

This laboratory course begins by emphasizing the appropriate use of units and mathematical techniques important to chemistry, science and health disciplines in general. An introduction to chemistry laboratory sampling and measurement techniques is included in the second half of the course. Stoichiometric calculations supplement work done in CHM 2025. Selected aspects of inorganic nomenclature are included.

II. PREREQUISITES FOR THE COURSE:

Successful completion of all developmental courses and corresponding state exit exams

Co-requisite: CHM 2025

III. GENERAL COURSE INFORMATION: Topic Outline:

- Laboratory safety
- Basic mathematical skills used in chemistry
- Measurement theory and dimensional analysis
- Scientific graphing, especially of properties with "straight line" behavior
- Nomenclature of inorganic compounds
- Basic laboratory techniques
- Chemical reactions and the calculations involved

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 the 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
Explain basic chemistry laboratory safety rules, regulations, and procedures.	Successful completion of any, or a combination, of the following: quizzes, examinations, homework assignments, and laboratory experiments.	GSR
Use scientific notation, significant figures, and the methods of dimensional analysis and algebraic rearrangement in problem solving.		CT, QR
Graph and analyze scientific data that exhibit straight-line behavior.		QR
Interpret and apply basic nomenclature rules for inorganic compounds, including acids and bases.		CT
Apply basic chemical laboratory techniques, such as mass and volume measurement, density determination, gravity filtration, solution preparation, and heating methods		TIM
Conduct selected chemical reactions and perform the appropriate calculations.		QR, 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 needing 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.

Lee Campus	Taeni Hall S-116A	(239) 489-9427
Charlotte Campus	Student Services SS-101	(941) 637-5626
Collier Campus	Admin. Bldg. A-116	(239) 732-3918
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
70 – 79	=	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 Edison Catalog for 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:

Include other info/procedures/policies that would be useful to the students in the class, if appropriate.

Revised 01/09

EDISON STATE COLLEGE

CURRICULUM COMMITTEE
CHANGE OF COURSE PROPOSAL FORM

TO: **CURRICULUM COMMITTEE**
FROM: Theo Koupelis
PRESENTER: Theo Koupelis
DATE: 2/27/09

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: **CHM 2210: Organic Chemistry I** and **CHM 2210L: Organic Chemistry I Laboratory**

Class credits: from to

Lab credits: from **2** to **1** (**for CHM 2210L**)

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 **None** to **The lecture and lab components of this class are now co-requisites of each other.**

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 proposed change in co-requisites simply adds this course to the list of all science courses that have separate lab components for which we have made the same change. It is simply better for the students to be exposed to the lab experience at the same time as they are enrolled in the lecture component of a course.

The changes in the course descriptions for both courses are such that the new descriptions better indicate the topics covered in class. However, no changes are made to the topics covered.

The change in credits for CHM 2210L is meant to bring it in line with the overall change in all science courses with lab components, as discussed at the previous meeting of this committee.

The learning outcomes and corresponding assessments for this course are currently being examined by the Learning Outcomes Associate.

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 is supported by all faculty teaching our Chemistry courses.

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:

CHM 2210: Organic Chemistry I – AA **4 Credits**

This course is the first part of a two-semester sequence in organic chemistry designed for students entering paraprofessional fields and also physical science areas. It covers concepts on saturated and unsaturated hydrocarbons and their derivatives, as well as their synthesis, nomenclature, reactions, mechanisms, stereochemistry, and uses.

II. PREREQUISITES FOR THE COURSE:

CHM 2045/2045L and CHM 2046/2046L with a grade of "C" or better in each course

Co-requisite: CHM 2210L

III. GENERAL COURSE INFORMATION: Topic Outline:

- A review of atomic and molecular bonding theories
- A review of acid-base chemistry, thermodynamics, kinetics and equilibrium as these apply to the study and understanding of organic chemistry
- The study of the alkane and cycloalkane functional groups; properties, reactions, and mechanisms
- The study and application of stereochemistry
- The study of the haloalkane functional group; properties, reactions, and mechanisms
- The study of the alkene functional group and allylic systems; properties, reactions, and mechanisms
- The study of the alkyne functional group and/or the alcohol functional group and the Diels-Alder 2+4 cycloaddition reaction; properties, reactions, and mechanisms

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
Name organic molecules containing the functional groups covered in class (such as alkanes, haloalkanes, cycloalkanes, alkenes, alkynes, and/or alcohols).	Successful completion of one or more of the following: quizzes, presentation, questions on homework, exams.	CT, COM
Identify organic molecules based on functional groups covered in class.	Successful completion of one or more of the following: quizzes, homework, exams.	TIM, CT, QR
Interpret absolute conformation and identify steric hindrance in organic molecules using model kits.	Successful completion of one or more of the following: presentation, homework, quizzes, short essays, exams.	COM, CT, TIM
Compute optical rotation, quantify selectivity in organic reactions, and analyze energy diagrams.	Successful completion of presentations and/or exams.	QR
Analyze organic molecular structure and function, and formulate reaction mechanisms using the tools of stereochemistry and transition state theory.	Successful completion of one or more of the following: class presentation, homework, quizzes, short essays, exams.	CT, COM, TIM
Analyze the effects of hydrocarbons in the environment and focus on data correlated to global warming.		GSR
Create synthesis reactions with organic functional groups and modify them to synthesize new functional		CT, COM

groups and larger, more complex organic molecules.		
Describe in detail the molecular/electronic mechanisms by which the organic functional groups covered in class react, and the mechanisms by which they facilitate reactions.		CT, COM
Define, use, and write examples of all pertinent vocabulary terms covered in class.		CT, COM

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 needing 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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Charlotte Campus	Student Services SS-101	(941) 637-5626
Collier Campus	Admin. Bldg. A-116	(239) 732-3918
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:

CHM 2210L: Organic Chemistry I Lab – AA **1 Credit**

This lab course accompanies CHM 2210 and is the first part of a two-semester lab sequence in organic chemistry. It emphasizes microscale and macroscale laboratory techniques associated with synthesis, isolation, purification and identification of organic compounds. Specific techniques include thin layer chromatography, spectral analysis, solvent extraction, isolation, identification, reflux condensation, recrystallization, filtration, and/or synthesis.

II. PREREQUISITES FOR THE COURSE:

CHM 2045/2045L and CHM 2046/2046L with a grade of "C" or better in each course

Co-requisite: CHM 2210

III. GENERAL COURSE INFORMATION: Topic Outline:

- Use of macro and micro scale glassware
- Separation, purification, and analysis of organic compounds
- Use of techniques such as extraction, distillation, crystallization, and TLC to isolate organic products
- Identification of unknown compounds

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
Implement and demonstrate proper safety procedures in the organic chemistry laboratory.	Adhering to a signed safety agreement, and writing safety procedures on assignments and/or exams.	CT, QR, COM, TIM, GSR
Use and set up correctly both micro and macroscale laboratory equipment for a number of procedures, including constant temperature refluxing, distillation, and recrystallization.	Successful participation in, and completion of, all laboratory assignments; submission of a completed laboratory notebook.	TIM, CT, COM
Perform product analysis using thin layer chromatography, melting temperatures, FTIR spectroscopy and/or UV-spectrophotometry.		TI, COM, QR
Describe each experimental procedure, relevant observations, data, results, and a conclusion for each experiment in a well-kept and maintained laboratory notebook.		CT, QR, COM
Compute percent yield and limiting reactant calculations.		CT, QR, COM
Perform analyses of unknown compounds.		CT, QR, COM

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 needing 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.

Lee Campus	Taeni Hall S-116A	(239) 489-9427
Charlotte Campus	Student Services SS-101	(941) 637-5626
Collier Campus	Admin. Bldg. A-116	(239) 732-3918
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

CURRICULUM COMMITTEE
CHANGE OF COURSE PROPOSAL FORM

TO: **CURRICULUM COMMITTEE**
FROM: Theo Koupelis
PRESENTER: Theo Koupelis
DATE: 2/27/09

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: **PHY 1007: Physics for the Health Sciences**

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 **MAC 1105, MGF 1106 or higher level mathematics** to **MAT 1033 with a minimum grade of "C," or higher level mathematics**

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 prerequisites are a better indicator of the level of math needed to succeed in this class.

The learning outcomes and corresponding assessments for this course are currently being examined by the Learning Outcomes Associate.

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 is supported by all faculty teaching our physics courses.

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:

PHY 1007: Physics for the Health Sciences – AS **3 Credits**

This is a one-semester course for students in the health sciences who need a background in physics which is broad in scope and stresses applications in the health field. This course cannot be used to meet the AA science requirement since it has no accompanying laboratory.

II. PREREQUISITES FOR THE COURSE:

MAT 1033 with a minimum grade of "C," or higher level mathematics

III. GENERAL COURSE INFORMATION: Topic Outline:

- Basic mathematical skills, methods of measurement, the scientific method
- Newton's first, second and third laws of motion
- Work, energy and power
- Properties of solids, liquids and gases
- Heat, temperature, internal energy
- Phase changes, heat transfer, vapor pressure
- Osmosis, gas transport, surface tension, viscosity, absorption and adsorption
- Pressure in liquids, the circulatory system and other medical applications
- Electricity, magnetism, electric circuits, instrumentation and electrical safety
- Wave motion, hearing and vision
- Modern physics and clinical applications
- Nuclear radiation

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 the course, students will be able to demonstrate the following additional competencies:

Learning Outcomes	Assessments	Gen. Ed. competencies
Recognize the general nature of physics, and explain and apply the scientific method.	1. Solve short problems and/or participate in various classroom assessment techniques. 2. Answer conceptual questions on scheduled homework, tests and quizzes. 3. Take exams. 4. Do in-class presentations and explain key physics concepts related to one's area of specialization.	COM, CT
Distinguish between the British and SI systems of units and use them in solving problems.		CT, QR
Plot data and interpret simple graphs.		CT,TIM
Recognize the basic atomic properties of matter, including radioactivity and its effects on biological tissue.		CT, GSR
Use Newton's laws of motion in solving problems.		CT, QR
Define basic terms in mechanics.		COM
State and explain the law of conservation of energy, Pascal's law, Bernoulli's principle, and the Coandă effect.		COM, CT
State the physical variables characterizing a liquid flowing through a tube.		COM
State the ideal gas law and use it in solving problems.		COM, CT, QR

Explain how various physical properties of matter, such as but not limited to, diffusion, osmosis, and surface tension, affect the behavior of biological systems.		COM, CT
Recognize basic electrical and magnetic properties of matter and explain how they affect biological systems and their functions.		COM, CT
Describe the basic properties of light and waves and explain how they relate to biological systems.		COM, 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 needing 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.

Lee Campus	Taeni Hall S-116A	(239) 489-9427
Charlotte Campus	Student Services SS-101	(941) 637-5626
Collier Campus	Admin. Bldg. A-116	(239) 732-3918
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
70 – 79	=	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 Edison Catalog for 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:

Include other info/procedures/policies that would be useful to the students in the class, if appropriate.

EDISON STATE COLLEGE

CURRICULUM COMMITTEE
CHANGE OF COURSE PROPOSAL FORM

TO: CURRICULUM COMMITTEE
FROM: Theo Koupelis
PRESENTER: Theo Koupelis
DATE: 2/27/09

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:

CHM 2211L: Organic Chemistry II --- Change in lab credits from 2 to 1

PHY 2053: College Physics I --- Change in course credits from 3 to 4

PHY 2053L: College Physics I Laboratory --- Change in lab credits from 3 to 1

PHY 2054: College Physics II --- Change in course credits from 3 to 4

PHY 2054L: College Physics II Laboratory --- Change in lab credits from 3 to 1

PHY 2048: General Physics I --- Change in course credits from 3 to 4

PHY 2048L: General Physics I Laboratory --- Change in lab credits from 3 to 1

PHY 2049: General Physics II --- Change in course credits from 3 to 4

PHY 2049L: General Physics II Laboratory --- Change in lab credits from 3 to 1

Class credits: from to **(see above)**

Lab credits: from to **(see above)**

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 change in credits for the courses in this proposal is meant to bring them in line with the overall change in all science courses with lab components, as discussed at the previous meeting of this committee.

The current syllabi for these courses are the ones found at the portal and they are of poor quality. These courses are under review but the work has not been completed. As such, we need to correct the credits before the new Catalog comes out. The reviewed and updated syllabi will be presented to this Committee at its next meeting. It would be appreciated if any questions about items unrelated to this request for credit change are kept for the next meeting.

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 is supported by our entire science faculty.

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.