EDISON STATE COLLEGE

CURRICULUM COMMITTEE
CHANGE OF COURSE PROPOSAL FORM

TO: CURRICULUM COMMITTEE
FROM: Theo Koupelis
PRESENTER: Peggy Romeo
DATE: 12/18/08

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 1050C: Environmental Biology: Our Global Environment**

Class credits: from to

Lab credits: from to

Combined lab & class credits: from to

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

From ☐ AS to ☐ BS

From ☐ degree core requirement to ☐ elective OR

From ☐ elective to ☐ degree core requirement

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

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

Change in prerequisites from to

Change in co-requisite from to

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

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

JUSTIFICATION FOR CURRICULUM ACTION, OTHER EXPLANATORY INFORMATION:

The original title, *Environmental Biology: Man and the Environment*, was perceived as being sexist. The new title is more "neutral" and more in line with what the other schools are offering. It is interesting to note that in the State's website this course is titled "Man and the Environment" (and so is the Decade title) but no school other than ESC (of the 15 total offering this course) includes the word "Man" in the course's title.

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

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

FACULTY ENDORSEMENTS:

This proposal has the support of our entire Biology 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 STATE COLLEGE

CURRICULUM COMMITTEE
CHANGE OF COURSE PROPOSAL FORM

TO: CURRICULUM COMMITTEE
FROM: Theo Koupelis
PRESENTER: Peggy Romeo
DATE: 12/18/08

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 1051C: Environmental Biology: South Florida Ecosystems**

Class credits: from to

Lab credits: from to

Combined lab & class credits: from to

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

From ☐ AS to ☐ BS

From ☐ degree core requirement to ☐ elective OR

From ☐ elective to ☐ degree core requirement

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

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

Change in prerequisites from to

Change in co-requisite from to

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

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

JUSTIFICATION FOR CURRICULUM ACTION, OTHER EXPLANATORY INFORMATION:

The original title as shown in the Catalog, *Environmental Biology: South Florida Environments*, contradicts the title in the State's website, where it is shown as *Environmental Biology: Ecosystems of South Florida.* Also, the State's website does not include any description of the course (as of 2004).

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 our entire Biology 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 STATE COLLEGE

CURRICULUM COMMITTEE
CHANGE OF COURSE PROPOSAL FORM

TO: **CURRICULUM COMMITTEE**
FROM: Theo Koupelis
PRESENTER: Roz Jester
DATE: 12/18/08

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: **OCE 1001C: Introduction to Oceanography**

Class credits: from to

Lab credits: from to

Combined lab & class credits: from to

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

From ☐ AS to ☐ BS

From ☐ degree core requirement to ☐ elective OR

From ☐ elective to ☐ degree core requirement

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

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

Change in prerequisites from to

Change in co-requisite from to

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

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

JUSTIFICATION FOR CURRICULUM ACTION, OTHER EXPLANATORY INFORMATION:

The new title is more in line with the title used by the majority of schools across the state.

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 our entire Oceanography 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 STATE COLLEGE

CURRICULUM COMMITTEE
CHANGE OF COURSE PROPOSAL FORM

TO: **CURRICULUM COMMITTEE**
FROM: Theo Koupelis
PRESENTER: Roz Jester
DATE: 12/18/08

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: **OCB 1001C: The Living Ocean**

(old title: OCE 1002C: Oceanography II: A Multidisciplinary Science.)

Class credits: from to

Lab credits: from to

Combined lab & class credits: from to

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

From ☐ AS to ☐ BS

From ☐ degree core requirement to ☐ elective OR

From ☐ elective to ☐ degree core requirement

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

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

Change in prerequisites from to

Change in co-requisite from to

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

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

JUSTIFICATION FOR CURRICULUM ACTION, OTHER EXPLANATORY INFORMATION:

The previous title of this course was OCE 1002C: Oceanography II: A Multidisciplinary Science. **The new title is a better descriptor of the content of the course, making the distinction between marine biology and biological oceanography.**

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 our entire Oceanography 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 STATE COLLEGE

CURRICULUM COMMITTEE
CHANGE OF COURSE PROPOSAL FORM

TO: **CURRICULUM COMMITTEE**
FROM: Theo Koupelis
PRESENTER: Bob Burns
DATE: 12/18/08

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 2045: General Chemistry 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 {**CHM 2025 and CHM 2025L**} to {**CHM 2025 and CHM 2025L**} **or** {**CHM 2032 and 2032L**} **or Testing**

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:

As of Spring 2009, we are offering a new course (CHM 2032 and CHM 2032L), which was developed at the request of our colleagues from the Health Sciences. This course can now serve as a prerequisite to CHM 2045/2045L. We also developed a by-pass test, as a result of a request from our colleagues at the Education Department, for those students who have enough background knowledge in Chemistry to succeed at the CHM 2045 level without having to take additional introductory credits in Chemistry.

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 our entire Chemistry 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 STATE COLLEGE

CURRICULUM COMMITTEE
CHANGE OF COURSE PROPOSAL FORM

TO: CURRICULUM COMMITTEE
FROM: Theo Koupelis
PRESENTER: Theo Koupelis
DATE: 12/18/08

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)** **Topic outline**

Course Name, including prefix and number: **All science courses included in this request**

Class credits: from to

Lab credits: from to

Combined lab & class credits: from to

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

From ☐ AS to ☐ BS

From ☐ degree core requirement to ☐ elective OR

From ☐ elective to ☐ degree core requirement

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

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

Change in prerequisites from to

Change in co-requisite from to

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

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

JUSTIFICATION FOR CURRICULUM ACTION, OTHER EXPLANATORY INFORMATION:

As part of the curriculum review project, every aspect of every course in our curriculum is being reviewed. "Major" issues, such as title changes and prerequisite/co-requisite changes have been covered by other proposals (attached). This proposal covers minor changes in the description of our courses, in the topic outline, and in the description of the learning outcomes and corresponding assessments.

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.

EDISON STATE COLLEGE

CURRICULUM COMMITTEE
CHANGE OF COURSE PROPOSAL FORM

TO: **CURRICULUM COMMITTEE**
FROM: Theo Koupelis
PRESENTER: Theo Koupelis
DATE: 12/18/08

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: **All science courses accompanied by labs**

Class credits: from to

Lab credits: from **3 (or 2)** to **1**

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 **corresponding lecture / lab**

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:

Offering the lab component of a science class as an independent course that can be taken at any time (and often before the corresponding lecture component, just because it better fits a student's schedule) is not in the student's best interest. Best learning occurs when concepts are covered at the same time as students apply them or experiment on them in a laboratory setting.

As we move forward with the curriculum review project, all of our science courses that are accompanied by labs will have the lab component as a co-requisite of the lecture component and vice versa.

In addition, the credits corresponding to a lab are being decreased from 3 to 1, which will bring us in line with national practice. For some of our courses (e.g., in physics) we are rearranging the current total contact hours for lecture and lab so that we can better prepare students with more in-depth coverage of the material. This change will have a negative impact on ESC's revenues but it is best for the students with respect to the number of credits they accumulate; this change is also in agreement with the recommendations of an ESC committee charged to study this issue.

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 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.

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 1005: Introduction to Biological Sciences – AA **3 Credits**

This survey course provides a foundation for BSC1010, BSC1093C and MCB 2010C. Topics included are chemistry for biological sciences, biology of the cell and heredity. This course will include lecture/discussion and group activities. This course is not a pre-requisite for BSC1010 but it is recommended for those who have had no prior experience with biological sciences course work. This course fulfills three hours of the General Education science requirement but does not have an associated lab.

II. PREREQUISITES FOR THE COURSE: None

III. GENERAL COURSE INFORMATION: Topic Outline:

- Science as a process
- The Chemical Basis of Life
- The Molecules of Cells
- A Tour of the Cell
- The Working Cell
- How Cells Harvest Chemical Energy
- Photosynthesis
- Ecosystem Food Webs
- The Cellular Basis of Reproduction and Inheritance
- Patterns of Inheritance
- Evolution of Populations and Behavior
- Molecular Biology of the Gene
- The Control of Gene Expression
- DNA Technology and the Human Genome

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
Analyze basic atomic structure and function and discuss its role in chemical bonding.	Successfully complete one or more of the following: exams; quizzes; debates; case studies; writing assignments; oral, written, or electronic presentations; discussion forums; collaborative problem solving exercises; or data interpretation and analysis exercises.	QR, CT, COM
Identify chemical reactions and be able to write a simple chemical equation showing chemical equilibrium.	Successfully complete one or more of the following: exams; quizzes; collaborative problem solving exercises; or data interpretation and analysis exercises.	QR, CT, COM
Justify how the physical and chemical properties of water are important to life.	Successfully complete one or more of the following: exams; quizzes; debates; oral, written, or electronic presentations; or discussion.	QR, CT, TIM
Describe the pH scale, its relationship to living systems, and its practical and scientific uses in our lives.	Successfully complete one or more of the following: exams; quizzes; debates; writing assignments; oral, written, or electronic presentations; discussion forums; collaborative problem solving exercises; or data interpretation and analysis exercises.	QR, CT, TIM, COM
Critically discuss the importance of enzyme catalyzed chemical reactions and discuss their	Successfully complete one or more of the	QR, CT, COM

importance to the metabolism of living organisms.	following: exams; quizzes; debates; case studies; writing assignments; oral, written, or electronic presentations; discussion forums; collaborative problem solving exercises; or data interpretation and analysis exercises.	
Compare the structure of prokaryotic and eukaryotic cells and discuss how structure relates to cell function.		QR, CT, TIM, COM
Compare and contrast plant and animal cells as to structure and function.		QR, TIM, CT
Identify and analyze ways through which plant and animal cells obtain energy needed for metabolism and carbon needed for synthesis of molecules.		QR, CT
Criticize the stages and purpose of mitosis and meiosis.		QR, CT, COM
Apply basic Mendelian genetics to solve genetic problems.	Successfully complete one or more of the following: exams; quizzes; discussion forums; or collaborative problem solving exercises.	QR, CT
Describe the structure and function of chromosomes.	Successfully complete one or more of the following: exams; quizzes; debates; writing assignments; oral, written, or electronic presentations; or discussion forums.	COM, CT
Critically analyze the steps of protein synthesis.	Successfully complete one or more of the following: exams; quizzes; debates; writing assignments; oral, written, or electronic presentations; discussion forums; or data interpretation and analysis exercises.	QR, CT, COM
Discuss how mutations affect protein synthesis and cell function.	Successfully complete one or more of the following: exams; quizzes; debates; writing assignments; oral, written, or electronic presentations; or discussion forums.	QR, CT, COM
Criticize the applications and importance of genetic engineering.	Successfully complete one or more of the following: exams; quizzes; debates; case studies; writing assignments; oral, written, or electronic presentations; discussion forums; collaborative problem solving exercises; or data interpretation and analysis exercises.	GSR, COM, 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
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:

BSC 1010: Biological Science I – AA **3 Credits**

This introduction to cell biology is designed to meet entrance requirements for upper division majors in biology, psychology or other pre-professional programs. The course addresses and integrates concepts associated with the basic physical and chemical properties of living matter as they relate to the structure and function of the cell, cell reproduction, Mendelian and molecular genetics (DNA replication and gene expression), energy metabolism, metabolic control systems, and cell to cell communication systems.

II. PREREQUISITES FOR THE COURSE:

Minimum score of {(SAT-R 440 quantitative and 440 verbal) or ACT-E 19 math, 18 reading and 17 English) or (FCELPT 72 math, 83 reading and 83 sentence skills)} and {BSC 1005 or high school biology} with a "C" or better.

Co-requisite: BSC1010L

III. GENERAL COURSE INFORMATION: Topic Outline:

- The chemical basis of life
- Functional organization of prokaryotic and eukaryotic cells
- The cell theory as evidenced in prokaryotic and eukaryotic cell cycles and associated mechanisms of control
- The role of chromosomes in heredity, their prokaryotic and eukaryotic structure and replication (DNA biosynthesis)
- The "anatomy" of prokaryotic and eukaryotic genes, their transcription and translation and the regulation of these processes
- The origin of new genetic variations (mutations) as errors in DNA replication, crossing over or non-disjunction
- Genetic engineering and the Human Genome Project
- The functional roles of proteins, the products of gene expression
- Patterns of Mendelian inheritance and the protein basis of the origin of alleles
- An introduction to energy and metabolism (role of enzymes in catabolism and anabolism)
- The structural and functional roles of membranes with an emphasis on the functions

associated with lipids and proteins
- Catabolic energy yielding metabolisms associated with carbohydrates, fatty acids or amino acid skeletons associated with fermentation or respiration and the energy consuming, anabolic process of photosynthesis
- Cell communication mechanisms and their role in control of metabolic pathways and gene expression

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
Construct the atomic structure of simple elements using the periodic table.	Successfully complete one or more of the following: exams; quizzes; collaborative problem solving exercises; or data interpretation and analysis exercises.	CT, QR
Critically discuss the special properties of water that make it a necessary component of life.	Successfully complete one or more of the following: exams; quizzes; writing assignments; debates; oral, written, or electronic presentations; discussion forums; or data interpretation and analysis exercises.	QR, CT, COM
Identify molecular bonds and apply bonding	Successfully complete one or more of the following: exams; quizzes; debates; oral,	QR, CT

concepts to the four major organic molecules of life.	written, or electronic presentations; discussion forums; or data interpretation and analysis exercises.	
Compare and contrast the similarities and differences between prokaryotic and eukaryotic cell structure and function.	Successfully complete one or more of the following: exams; quizzes; writing assignments; oral, written, or electronic presentations; discussion forums; or data interpretation and analysis exercises.	QR, CT, TIM, COM
Analyze and appraise critical functions played by the lipid and protein components of cell compartmentalization of eukaryotic cells.	Successfully complete one or more of the following: exams; quizzes; writing assignments; debates; oral, written, or electronic presentations; discussion forums; or data interpretation and analysis exercises.	QR, CT, TIM
Defend the current theories of enzyme structure and function and the role of enzymes in metabolism the role of enzymes in metabolism.		QR, CT, COM
Critically discuss the energy yielding, catabolic pathways of glycolysis and cellular respiration, and evaluate the significance of fermentation, and their significance to living organisms.		QR, CT, COM
Explain the anabolic pathways associated with photosynthesis and their significance to living organisms.		QR, CT, COM
Criticize the concepts involved in cell-to-cell communication.	Successfully complete one or more of the following: exams; quizzes; writing assignments; debates; oral, written, or electronic presentations; or discussion forums.	CT, COM
Compare and contrast cell cycles of prokaryotic and eukaryotic cells and associated controls.		QR, CT, COM
Analyze Mendelian patterns of inheritance and solve simple genetics problems.	Successfully complete one or more of the following: exams; quizzes; writing assignments; debates; case studies; oral, written, or electronic presentations; discussion forums; collaborative problem solving exercises; or data interpretation and analysis exercises.	QR, CT
Determine relationships between molecular genetics and Mendelian inheritance.		QR, CT
Describe and explain the processes involved in the		QR, CT, COM

replication and repair of DNA.		
Appraise the role of transcription and translation of genes in cellular control.	Successfully complete one or more of the following: exams; quizzes; writing assignments; debates; oral, written, or electronic presentations; discussion forums; or data interpretation and analysis exercises.	CR, CT
Criticize methods used to genetically engineer an organism or to map its entire genome.	Successfully complete one or more of the following: exams; quizzes; writing assignments; debates; oral, written, or electronic presentations; discussion forums; collaborative problem solving exercises; or data interpretation and analysis exercises.	COM, GSR, 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
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:

BSC 1010L: Biological Science I Laboratory – AA **1 Credit**

This laboratory, which accompanies BSC 1010, emphasizes the development of scientific reasoning, formulation of problem statements, and development of investigational techniques and data collection skills used to evaluate scientific hypotheses. Investigations using computer-based simulations and hands-on exercises, instrumental techniques common to studies of cell biology, are employed to study topics introduced in BSC 1010.

II. PREREQUISITES FOR THE COURSE:

Minimum score of {(SAT-R 440 quantitative and 440 verbal) or (ACT-E 19 math, 18 reading and 17 English) or (FCELPT 72 math, 83 reading and 83 sentence skills)} and {BSC1005 or high school biology} with a grade of "C" or better.

Co-requisite: BSC 1010
Recommended: CHM 2032 or higher

III. GENERAL COURSE INFORMATION: Topic Outline:

- Components of the scientific method
- Designing experiments
- Data management skills
- How to keep a laboratory notebook
- How to write a scientific paper
- How to give an oral scientific report
- How to design a scientific presentation
- Computer-based data management or presentation. Computer programs may be included
- Conducting assigned experiments

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
Demonstrate an understanding of science as a way of knowing and inquiry.	Successfully complete one or more of the following: exams; quizzes; debates; writing assignments; oral, written, or electronic presentations; computer simulation exercises; collaborative problem solving exercises; data interpretation and analysis exercises; or a well-organized lab notebook.	QR, CT, TIM
Apply the elements of the scientific method to answer a scientific problem.		COM, QR, CT
Analyze and graph scientific data, using computer-based data management and presentation programs.	Successfully complete one or more of the following: exams; quizzes; oral, written, or electronic presentations; computer simulation exercises; collaborative problem solving exercises; or data interpretation and analysis exercises.	QR, CT, TIM, COM
Properly use scientific procedures in assigned experiments and equipment, including but not limited to microscopes, spectrophotometers, analytical balances, chromatography, and volumetric pipette delivery systems.	Successfully complete one or more of the following: exams; quizzes; oral, written, or electronic presentations; computer simulation exercises; data interpretation and analysis exercises; or a well-organized lab notebook.	TIM

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.

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 1011: Biological Science II – AA **3 Credits**

This course builds on the cell biology presented in BSC1010 and examines the mechanisms of genetic change in populations, the adaptation of living things to their environment, the concept of *niche* and the processes leading to biodiversity, population growth and regulation, energy flow and biogeochemical cycling in the biosphere, and interactions of creatures with the living and non-living components of their ecosystems

II. PREREQUISITES FOR THE COURSE:

BSC 1010 with a grade of "C" or better
Co-requisite: BSC 1011L

III. GENERAL COURSE INFORMATION: Topic Outline:

- The history of evolutionary theory and the scientific evidence supporting the theory of evolution
- The processes involved in micro- and macro-evolutions including gradualism and punctuated evolution
- The classification of organisms and its evolutionary significance
- The geographical distribution of organisms, the regional diversity of organisms and their evolutionary significance
- Adaptations of organisms in aquatic and terrestrial environments
- Behavior of living organisms
- Ecology of populations and communities
- Ecosystems and biomes

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
Criticize the historical development of evolutionary theory.	Successfully complete one or more of the following: exams; quizzes; writing assignments; discussion forums; debates; case studies; or oral, written, or electronic presentations.	CT, GSR
Appraise the role of the evolutionary theory in uniting the various disciplines of biology into a unified system of knowledge.	Successfully complete one or more of the following: exams; quizzes; writing assignments; discussion forums; debates; or oral, written, or electronic presentations.	CT,GSR
Analyze and appraise the fossil, biogeographic, and genetic evidence that supports the theory of evolution.	Successfully complete one or more of the following: exams; quizzes; writing assignments; discussion forums; debates; oral, written, or electronic presentations; or data interpretation and analysis exercises.	COM, CT, QR, GSR
Critically analyze gradualism and punctuated equilibrium models.	Successfully complete one or more of the following: exams; quizzes; writing assignments; discussion forums; debates; or oral, written, or electronic presentations.	QR, CT
Explain allopatric and sympatric modes of speciation.	Successfully complete one or more of the following: exams; quizzes; writing assignments; discussion forums; oral, written, or electronic presentations; or data interpretation and analysis exercises.	COM, CT
Describe how routine exposure to antibiotics can cause the evolution of	Successfully complete one or more of the following: exams; quizzes; writing assignments; discussion forums; debates; case studies; oral,	COM, CT, QR

resistance strains of bacteria.	written, or electronic presentations; data interpretation and analysis exercises; or collaborative problem solving exercises.	
Analyze and appraise the nutritional and metabolic diversity, adaptations, and patterns of embryonic development of organisms found in the different kingdoms.	Successfully complete one or more of the following: exams; quizzes; writing assignments; discussion forums; debates; case studies; oral, written, or electronic presentations; data interpretation and analysis exercises; or collaborative problem solving exercises.	COM, CT, QR
Compare the interplay between innate behavior and learned behavior.	Successfully complete one or more of the following: exams; quizzes; writing assignments; discussion forums; case studies; oral, written, or electronic presentations; data interpretation and analysis exercises; or collaborative problem solving exercises.	CT
Analyze and appraise the similarities and differences between and among the major ecosystems and biomes.	Successfully complete one or more of the following: exams; quizzes; writing assignments; discussion forums; debates; case studies; oral, written, or electronic presentations; or data interpretation and analysis exercises.	CT, COM
Analyze and interpret the structure of ecosystems.	Successfully complete one or more of the following: exams; quizzes; writing assignments; discussion forums; case studies; oral, written, or electronic presentations; or data interpretation and analysis exercises.	CT, TIM, QR, COM
Illustrate how energy flows and matter cycles in different ecosystems.	Successfully complete one or more of the following: exams; quizzes; writing assignments; discussion forums; oral, written, or electronic presentations; or data interpretation and analysis exercises.	CT, COM, QR

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
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 1011L: Biological Science II Laboratory – AA **1 Credit**

Investigations using computer-based simulations and hands-on exercises employing instrumental and field study techniques common to organism level biological studies are introduced to study topics in BSC 1011. Laboratory activities include outdoor activities on and off campus.

II. PREREQUISITES FOR THE COURSE:

BSC 1010 with a grade of "C" or better

Co-requisite: BSC 1011

III. GENERAL COURSE INFORMATION: Topic Outline:

- Mechanisms of evolution
- Population Genetics
- Hardy-Weinberg Equilibrium
- Evolutionary change simulation
- Computer simulation of population evolution
- Classification & Taxonomy
- Chi-Square testing
- Plant and animal diversity
- Biodiversity
- Terrestrial ecology
- Population ecology
- Community structure
- Ecosystems of South Florida
- Conservation ecology

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
Appraise population genetics and its role in producing genetic diversity.	Successfully complete one or more of the following: exams; quizzes; debates; writing assignments; computer simulation exercises; group experiments; or oral, written or electronic presentations; or data interpretation and analysis exercises.	CT, COM, GSR
Criticize the role of species diversity (biodiversity) on Earth and its adaptive significance.	Successfully complete one or more of the following: exams; quizzes; debates; writing assignments; computer simulation exercises; group experiments; or oral, written or electronic presentations.	CT, QR
Analyze the evidence for evolution.	Successfully complete one or more of the following: exams; quizzes; debates; writing assignments; group experiments; oral, written or electronic presentations; collaborative problem solving exercises; discussion forums; or data interpretation and analysis exercises.	COM, GSR, CT, QR
Compare and contrast the interrelated biotic and abiotic components of complex ecosystems.	Successfully complete one or more of the following: exams; quizzes; debates; writing assignments; oral, written or electronic presentations; collaborative problem solving exercises; discussion forums; or data interpretation and analysis exercises.	CT, QR, TIM

Show how altering one environmental factor may have far reaching effects on other components of the ecosystem.	Successfully complete one or more of the following: exams; quizzes; debates; writing assignments; computer simulation exercises; group experiments; oral, written or electronic presentations; collaborative problem solving exercises; discussion forums; or data interpretation and analysis exercises.	GSR, CT, QR
Analyze the different strategies employed by plants and animals in regulating their metabolism.	Successfully complete one or more of the following: exams; quizzes; debates; writing assignments; computer simulation exercises; group experiments; oral, written or electronic presentations; discussion forums; or data interpretation and analysis exercises.	TIM, QR, CT
Analyze scientific issues and propose solutions to scientific problems using concepts covered in this class.	Successfully complete one or more of the following: exams; quizzes; computer simulation exercises; group experiments; oral, written or electronic presentations; collaborative problem solving exercises; or data interpretation and analysis exercises.	QR, CT, TIM
Formulate common approaches in solving problems through group work.	Successfully complete one or more of the following: debates; group experiments; oral, written or electronic presentations; or collaborative problem solving exercises.	GSR, 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
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 1050C: Environmental Biology: Our Global Environment – AA 3 Credits

This class, designed for non-science majors, approaches topics in environmental science by studying the impact of humans. Contemporary ecological issues are explored in relation to problems of local, regional, national and global concerns. The format of the class involves combined lecture, lab and field trip activities including discussions and debates of local problems, as well as national and global issues.

II. PREREQUISITES FOR THE COURSE: None

III. GENERAL COURSE INFORMATION: Topic Outline:

- Current environmental concerns and the events and processes that lead to the current condition of the environment
- The processes, systems and interactions that underlie population and ecosystem dynamics
- Atmospheric dynamics and the causes, problems, and potential solutions to air pollution
- Water cycles and the causes, problems, and potential solutions to water and groundwater pollution
- Soil dynamics and the causes, problems, and potential solutions to soil pollution
- Population dynamics and the problems of overpopulation and over-consumption, including agricultural issues
- Land use problems (range management, desertification, deforestation, salinization, urban sprawl) and potential solutions
- Political issues, environmental regulations, environmental organizations and their impacts on environmental pollution and cleanup
- Biodiversity and preservation of rainforest and other land, aquatic and marine ecosystems
- Projections for the future of the environment and how current policies and practices will impact future conditions

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
Demonstrate and use the scientific process.	Successfully complete one or more of the following: exams; quizzes; oral, written, or electronic presentations; group experiments; or collaborative problem solving exercises; or data interpretation and analysis exercises.	QR, CT
Analyze ecosystems, how they interact, and their importance.	Successfully complete one or more of the following: exams; quizzes; debates; writing assignments; data interpretation and analysis exercises; or discussion forums.	CT
Use scientific vocabulary specific to a topic.	Successfully complete one or more of the following: exams; quizzes; debates; writing assignments; oral, written, or electronic presentations; or discussion forums.	COM
Critically analyze and compare both the facts and the processes explored in each topic.	Successfully complete one or more of the following: exams; quizzes; debates; writing assignments; oral, written, or electronic presentations; group experiments; or collaborative problem solving exercises; data interpretation and analysis exercises; or discussion forums.	CT

Appraise the evidence in support of the claims for each topic.	Successfully complete one or more of the following: exams; quizzes; debates; writing assignments; case studies; oral, written, or electronic presentations; group experiments; or collaborative problem solving exercises; data interpretation and analysis exercises; or discussion forums.	GSR, CT, COM
Appraise the historical impact of humans on the environment and why environmental concerns are prominent today.	Successfully complete one or more of the following: exams; quizzes; debates; writing assignments; case studies; oral, written, or electronic presentations; or discussion forums.	GSR, CT, COM
Recognize the choices and trade-offs presented when addressing the challenges of the modern environment.	Successfully complete one or more of the following: exams; quizzes; debates; writing assignments; case studies; oral, written, or electronic presentations; group experiments; or discussion forums.	TIM, CT, QR, COM
Defend the technological approaches proposed for solving environmental problems.	Successfully complete one or more of the following: exams; quizzes; debates; writing assignments; case studies; oral, written, or electronic presentations; group experiments; or collaborative problem solving exercises; data interpretation and analysis exercises; or discussion forums..	GSR, CT
Appraise the different cultural approaches to problem-solving, particularly between developed and developing societies.	Successfully complete one or more of the following: exams; quizzes; debates; writing assignments; case studies; oral, written, or electronic presentations; data interpretation and analysis exercises; or discussion forums.	GSR, CT, COM
Compare and contrast the issues and problems discussed in the course and the impact of choices made in the conduct of one's personal life.	Successfully complete one or more of the following: exams; quizzes; debates; writing assignments; oral, written, or electronic presentations; or discussion forums.	GSR, CT, COM
Develop connections between global, regional and local issues, and make informed political decisions.	Successfully complete one or more of the following: exams; quizzes; debates; writing assignments; oral, written, or electronic presentations; data interpretation and analysis exercises; or discussion forums.	CT, COM, GSR

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.

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 1051C: Environmental Biology: South Florida Ecosystems – AA 3 Credits

This class, designed for non-science majors, studies the natural processes, field study methods and the identification of biotic and abiotic components of the major Ecosystems of South Florida. The format of the class involves combined lecture, lab and field trip activities.

II. PREREQUISITES FOR THE COURSE: None

III. GENERAL COURSE INFORMATION: Topic Outline:

- Basic ecological principles and processes
- Field study methods
- Identification of biotic and abiotic components of the major ecosystems of South Florida
- Scientific investigations of the diverse local ecosystems

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
Analyze the major natural features of South Florida and determine how these features influence the major ecosystems of South Florida.	Successfully complete one or more of the following: exams; quizzes; debates; writing assignments; oral, written, or electronic presentations; discussion forums; data interpretation and analysis exercises; or field trips.	CT, QR, COM
Compare and contrast the similarities and differences of the biotic components of the major South Florida ecosystems.		CT, COM
Appraise the role of the historical geology of South Florida.		CT
Interpret the different patterns of energy flow in different ecosystems.	Successfully complete one or more of the following: exams; quizzes; writing assignments; oral, written, or electronic presentations; collaborative problem solving exercises; discussion forums; or data interpretation and analysis exercises.	QR, CT
Critically analyze the major biogeochemical cycles in ecosystems.	Successfully complete one or more of the following: exams; quizzes; debates; writing assignments; oral, written, or electronic presentations; discussion forums; or data interpretation and analysis exercises.	COM, CT, QR
Appraise the role of humans and their impact that threatens different ecosystems.	Successfully complete one or more of the following: exams; quizzes; debates; writing assignments; group experiments; oral, written, or electronic presentations; discussion forums; or field trips.	GSR, CT, COM
Analyze biotic and abiotic data related to various ecosystems.	Successfully complete one or more of the following: exams; quizzes; group experiments; data interpretation and analysis exercises; or field trips.	TIM, QR

Defend techniques used to restore damaged ecosystems.	Successfully complete one or more of the following: exams; quizzes; debates; writing assignments; oral, written, or electronic presentations; discussion forums; data interpretation and analysis exercises; or field trips.	GSR, TIM, 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.

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
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 2032: General Chemistry for the Health Sciences – AA **3 Credits**

This one semester course is designed for those allied health students needing a chemistry prerequisite. Topics to be covered include matter, energy, measurements, the atom, the Periodic Table, chemical bonding, formulas, reactions, and stoichiometry. Gases, liquids, solutions, acids and bases will be covered. Nuclear chemistry including radiation types and effects, basics of organic and biochemistry will also be covered.

II. PREREQUISITES FOR THE COURSE:

MAT 1033
Co-requisite: CHM 2032L

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 and mass percent concentration
- acids and bases, including Arrhenius theory and pH
- nuclear chemistry including isotopes, radiation types and effects, half-lives
- organic chemistry, basics including major functional groups, selected reactions

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
Discuss the general nature of chemistry and the scientific method.	Successfully complete one or more of the following: quizzes, examinations, or homework problems.	GSR, COM
Recognize and distinguish between physical and chemical properties and changes and understand the difference between matter and some common forms of energy.		CT, COM
Demonstrate a knowledge of 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 understand 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
Distinguish between ionic and covalent bonding, and represent substances by their Lewis structures.		CT
Use selected gas laws to calculate changes in properties of gases, including reactions involving gases.		CT, QR
Compare various intermolecular attractive forces and their effect on physical states, including energetics of phase changes.		CT,QR
Use basic solution terminology, including the concept		CT, QR

of molarity and its use in calculations involving solutions.		
Define an acid and a base, use the pH scale as a measure of acidity and define the purpose of a buffer.		CT
Describe a radioactive isotope; describe the detection methods and measurement of radiation, given the half-life of a radioisotope; calculate the remaining quantity after one or more half-lives.		CT, QR, COM
Recognize organic compounds; name and write formulas of the basic functional groups, and classify and write out simple organic reactions.		CT, COM
Define the terms related to carbohydrates, lipids, proteins and enzymes; to recognize their basic structures and to discuss the important biochemical aspects of these macromolecules.		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
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 2032L: General Chemistry for the Health Sciences Lab – AA **1 Credit**

This laboratory/recitation course for health science and nursing majors develops laboratory skills and problem solving skills for chemistry and scientific measurements. The laboratory experiments are meant to reinforce the topics covered in the lecture (CHM 2032).

II. PREREQUISITES FOR THE COURSE:

Co-requisite: CHM 2032

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

Learning Outcomes	Assessments	Gen. Ed. Competencies
Apply basic chemistry laboratory safety rules, regulations, and procedures.	Successfully complete one or more of the following: quizzes, examinations, homework assignments, and laboratory experiments.	GSR
Define and distinguish scientific notation, significant figures, and the methods of dimensional analysis and algebraic rearrangement for problem solving.		CT, QR, COM
Graph scientific data that exhibit straight-line behavior.		QR, TIM
Understand and apply basic nomenclature rules for inorganic compounds, including acids and bases.		CT
Utilize basic chemical laboratory techniques, such as mass and volume measurement, density determination, gravity filtration, solution preparation, and heating methods.		QR, TIM
Conduct selected chemical reactions and perform the appropriate calculations.		CT, QR

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.

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 2045: General Chemistry I – AA **3 Credits**

This course is the first half of a two-semester general chemistry sequence. It deals, in depth, with the topics of matter, chemical measurement, stoichiometry, atomic theory, bonding, molecular geometry, gases, liquids, solids, and properties of solutions.

II. PREREQUISITES FOR THE COURSE:

{CHM 2025 and CHM 2025L with a grade of "C" or better} or {CHM 2032 and CHM 2032L with a grade of "C" or better} or Testing

Co-requisite: CHM 2045L

III. GENERAL COURSE INFORMATION: Topic Outline:

- Matter and energy
- Measurement and significant figures
- Chemical formulas and nomenclature
- Chemical reactions and stoichiometry
- Atomic and molecular structure
- Chemical periodicity
- Chemical bonding
- Solids, liquids, and gases
- Properties of solutions

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
Recognize and distinguish the concepts of matter and energy, physical and chemical properties and changes.	Successfully complete one or more of the following: quizzes, examinations, and homework problems.	COM, CT
Explain the difference between heat and temperature, and perform calculations involved in heat transfer.		COM, QR
Interpret and use chemical formulas and perform calculations involving composition stoichiometry.		CT, TIM, QR
Classify and balance chemical reactions and perform calculations based on chemical compounds and their reactions.		CT, QR
Name selected inorganic compounds.		CT
Describe the Bohr model of the atom, compare it to the modern description by quantum theory, and describe atoms in terms of the quantum theory, including Periodic Table relationships.		COM, CT
Utilize the Periodic Table of the elements to recognize trends in atomic properties.		CT, QR
Distinguish between ionic and covalent bonding and represent substances by Lewis structures.		CT
Predict molecular shapes via the VSEPR method.		CT
Explain the basic ideas of molecular orbital theory, including the relationship between shapes and overlap of atomic orbitals and the shapes and energies of the resulting molecular orbitals.		COM, CT
Use selected gas laws to calculate changes in properties of gases, including reactions involving gases.		CT, QR
Describe various intermolecular attractive forces, explain their effect on selected physical properties,		COM, CT

calculate heat transfer aspects of solids, liquids, and gases, and interpret phase diagrams.		
Describe the basic aspects of the dissolution process (including the effects of pressure and temperature on solubility), discuss selected colligative properties, and perform calculations involving selected concentration units.		COM, QR

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
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 2045L: General Chemistry I Laboratory – AA **1 Credit**

This general chemistry laboratory emphasizes safety, chemical measurement techniques, stoichiometry, molar mass determination, molecular structure, and spectrophotometric measurements.

II. PREREQUISITES FOR THE COURSE:

{CHM 2025 and CHM 2025L with a grade of "C" or better} or {CHM 2032 and CHM 2032L with a grade of "C" or better}

Co-requisite: CHM 2045

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
- Experiments that illustrate and reinforce the concepts of CHM 2045

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
Describe and use basic chemistry laboratory safety rules, regulations, and procedures.	Successfully complete one or more of the following: quizzes, examinations, homework assignments, and laboratory experiments.	GSR
Collect and analyze mass and volume data to determine density, mean, standard deviation, and other statistical parameters.		TIM,QR
Utilize the techniques and perform the calculations, including graphical analysis, of mixture analysis, stoichiometry, molar mass determination, spectrophotometric analysis, and acid-base titrations.		TIM,QR
Illustrate and predict molecular geometry via the valence shell electron pair repulsion method.		CT
Formulate properties of gases via volume, pressure, and temperature measurements and associated calculations.		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
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
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 2046: General Chemistry II – AA **3 Credits**

This course is the second part of the two semester general chemistry sequence. It covers thermodynamics, equilibrium, kinetics, oxidation-reduction and electrochemistry.

II. PREREQUISITES FOR THE COURSE:

CHM 2045 and CHM 2045L with a grade of "C" or better

Co-requisite: CHM 2046L

III. GENERAL COURSE INFORMATION: Topic Outline:

- Thermochemistry and chemical thermodynamics
- Chemical kinetics
- Chemical equilibrium: homogeneous and heterogeneous; aqueous
- Oxidation-reduction reactions and electrochemistry

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 the laws and state the terminology of thermodynamics.	Successfully complete one or more of the following: quizzes, examinations, and homework problems.	COM
Solve numerical problems involving enthalpy, entropy, and free energy changes for physical and chemical processes.		COM, TIM, CT, QR
Describe the fundamentals of rates and mechanisms of chemical reactions.		COM, CT
Solve numerical problems involving rates, rate laws, reaction orders, concentrations, activation energy, and temperature dependence of rate.		COM, TIM, CT, QR
Describe the fundamentals of the various types of chemical equilibrium.		COM, CT
Solve equilibrium problems involving homogeneous and heterogeneous systems.		COM, TIM, CT, QR
Describe the Arrhenius, Bronsted-Lowry, and Lewis acid-base systems and classify acids and bases into the appropriate systems.		COM, CT
Predict relative strengths of selected binary and ternary acids.		COM, CT
Solve numerical problems involving acid-base and oxidation-reduction reactions in aqueous solutions.		COM, TIM, CT, QR
Use the concepts of pH/pOH to solve numerical problems involving strong and weak acids and bases and polyprotic acids.		COM, TIM, CT, QR
Recognize and appraise buffer systems and acid-base titration curves.		COM, TIM, CT, QR
Analyze chemical equilibria involving slightly soluble salts and complex ions.		COM, CT
Solve numerical problems involving equilibria of sparingly soluble salts and complex ions.		COM, TIM, CT, QR

Describe the fundamentals of galvanic and voltaic electrochemical cells and the mathematical description of both electrolytic and galvanic cells in terms of spontaneity and electrode potentials.		COM, TIM, CT, QR
Balance oxidation-reduction reactions.		COM, CT
Solve numerical problems involving electrochemical cell potentials, concentrations of electroactive species, thermodynamic and equilibrium aspects of electrochemical cells		COM, TIM, CT, QR

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
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 2046L: General Chemistry II Laboratory – AA **1 Credit**

This laboratory course emphasizes thermodynamics, kinetics, equilibrium, acid-base reactions, and electrochemistry through appropriate laboratory-based investigations. Data collection, analysis, and presentation techniques employing graphing calculators, computers, and spectrophotometers are important features of this laboratory.

II. PREREQUISITES FOR THE COURSE:

CHM 2045 and CHM 2045L with a grade of "C" or better

Co-requisite: CHM 2046

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
- Experiments that illustrate and reinforce the concepts of CHM 2046

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
List and explain basic chemistry laboratory safety rules, regulations, and procedures.	Successfully complete one or more of the following: quizzes, examinations, homework assignments, and laboratory experiments.	COM, CT
Use basic chemistry laboratory safety rules, regulations, and procedures to safely complete chemistry laboratory experiments.		COM, CT
Collect and analyze data, including graphical analysis, to determine thermodynamic, kinetic, equilibrium, and electrochemical properties of selected chemical systems.		COM, TIM, CT, QR
Solve numerical problems to determine thermodynamic, kinetic, equilibrium, and electrochemical properties of selected chemical systems.		COM, TIM, CT, QR

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
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:

HSC 1531: Medical Terminology – AA **3 Credits**

This course is designed to provide a basis for understanding, utilizing, and pronouncing the vocabulary used by health care professionals. The language of medicine becomes understandable through the study of word roots, combining forms, prefixes and suffixes. Major disease processes and pathological conditions of specific body systems will be discussed, along with diagnostic and surgical terms. This course has no accompanying laboratory and therefore cannot be used to meet the science requirement at Edison State College.

II. PREREQUISITES FOR THE COURSE:

None

III. GENERAL COURSE INFORMATION: Topic Outline:

- Introduction to Word Parts
- Body Structure
- Integumentary System
- Respiratory System
- Urinary System
- Male Reproductive System
- Female Reproductive System
- Obstetrics and Neonatology
- Cardiovascular and Immune Systems
- Digestive System
- Musculoskeletal System
- Nervous System
- 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	Competencies
Identify and define the three basic parts: word roots, prefixes and suf	Successfully answer questions on exams.	COM, CT
Analyze and define medical diagnostic terms built from word parts for all body systems.		COM, CT
Analyze and define surgical terms built from word parts for all body systems.		COM, CT
Analyze and define diagnostic procedural built from word parts for all body systems.	Students will demonstrate competency by successfully answering questions on exams.	COM, CT
Construct medical words when given their definitions for all body systems.		COM, CT
Pronounce selected medical terms for all body systems.		COM, CT
Correctly spell medical terms for all body 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
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:**

Office Hours: **Semester:**

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

ISC 1001C: Foundations of Interdisciplinary Science I – AA **3 Credits**

Foundations of Interdisciplinary Science is designed to provide a broad foundation in science for non-science majors. The two-course sequence emphasizes scientific and laboratory activities in a hands-on learning environment. ISC 1001C addresses the scientific method, geologic processes and the structure of the Earth, the solar system and star formation, electricity and magnetism and wave energy. The relationships of science to other fields of knowledge and to society are emphasized. This course is recommended as a general education course for non-science majors.

II. PREREQUISITES FOR THE COURSE:

None

III. GENERAL COURSE INFORMATION: Topic Outline:

- The scientific method
- The universe: stars and galaxies
- The solar system
- Earth: motion, time, and tides
- Rocks and plate tectonics
- Earthquakes, volcanoes, and geologic time
- Freshwater resources
- Seawater: waves, oceans, and currents
- Electromagnetism: charges, currents, and magnetism

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
Describe the scientific method and use it to solve problems.	1. Written lab reports 2. Quizzes and tests 3. Various CATs 4. Assigned homework	COM, CT, TIM, GSR,QR
Recognize the importance of measurement in scientific studies and use the concept of variation to explain physical phenomena.		
Describe and analyze the composition of the universe, and compare different models on the origin and evolution of the universe.	1. Quizzes and tests 2. Various CATs 3. Assigned homework 4. Written essay on a relevant topic (e.g., on the origin of the universe)	COM, CT, TIM, GSR,QR
Compare arguments for and against space exploration.	1. Quizzes and tests 2. Various CATs 3. Assigned homework 4. Written essay on a relevant topic (e.g., on the origin of the universe)	COM, CT, TIM, GSR,QR
Describe and analyze the observational evidence related to our solar system.	1. Quizzes and tests 2. Various CATs 3. Assigned homework	COM, CT, TIM, QR
Use information on the motion of the Earth to illustrate our current concept of time.	1. Written lab reports 2. Quizzes and tests 3. Various CATs 4. Assigned homework	COM, CT, TIM, QR
Analyze the effects of pollutants and greenhouse gases on the	Project or class presentation or written	COM, CT, TM, GSR, QR

Earth's atmosphere and appraise the impact of our actions on the atmosphere.	paper on a physical phenomenon such as the birth and death of stars, the warming of the atmosphere or conservation of natural resources	
Describe and explain phenomena associated with earthquakes, volcanoes, and geologic time.	1. Quizzes and tests 2. Various CATs 3. Assigned homework	COM,CT,TIM,QR
Construct a model for future weather phenomena based on physical changes in the atmosphere.	1. Quizzes and tests 2. Various CATs 3. Assigned homework	COM, CT, TIM,QR
Explain the concepts of waves and currents and show their connection to weather and atmospheric phenomena.	1. Quizzes and tests 2. Various CATs 3. Assigned homework 4. Written lab reports	COM, CT, QR
Recognize and differentiate between freshwater resources and appraise the need for conservation.	1. Quizzes and tests 2. Various CATs 3. Assigned homework 4. Written essay on different ways to conserve natural resources	CT, TIM, GSR,QR
Recognize and explain electric and magnetic fields, and differentiate between different methods of producing electricity.	1. Quizzes and tests 2. Various CATs 3. Assigned homework 4. Written lab reports	COM, CT, QR, TIM
Appraise the need to conserve energy.	1. Quizzes and tests 2. Various CATs 3. Assigned homework 4. Written lab reports	COM, CT, QR, TIM

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.

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:

ISC 1002C: Foundations of Interdisciplinary Science II – AA **3 Credits**

Foundations of Interdisciplinary Science is designed to provide a broad foundation in science for non-science majors. The two-course sequence emphasizes scientific and laboratory activities in a hands-on learning environment. ISC 1002 covers the topics of energy, nuclear reactions and nuclear energy, chemistry and environmental biology. The relationships of science to other fields of knowledge and to society are emphasized. This course is recommended as a general education course for non-science majors.

II. PREREQUISITES FOR THE COURSE:

None

III. GENERAL COURSE INFORMATION: Topic Outline:

- Measurement and the metric system
- Energy, work, energy flow, conservation and resources
- Heat and molecular motion, including phase changes and associated energy aspects; thermodynamics
- 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 and sources of light
- Nuclear reactions, nuclear energy, medical applications
- Ecology, ecosystems, organismal interactions, habitat, carbon, nitrogen, and water cycles

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
Describe and analyze the scientific method and use it to solve problems.	1. Written lab reports 2. Quizzes and tests 3. Assigned homework 4. Various CATs	COM, CT, TIM, GSR,QR
State and analyze the concepts of work and energy and use conservation of energy to explain the working of the physical world.	1. Written lab reports 2. Quizzes and tests 3. Assigned homework 4. Various CATs	COM, CT, TIM, GSR,QR
Analyze the basic concepts of thermodynamics and use them to solve problems on specific heat and phase change.	1. Written lab reports 2. Quizzes and tests 3. Assigned homework 4. Various CATs	COM, CT, TM, QR
Analyze the basic concepts of optics and use the principles of reflection, refraction, dispersion, interference and polarization to explain common phenomena in nature.	1. Written lab reports 2. Quizzes and tests 3. Assigned homework 4. Various CATs	COM, CT, TM, QR
State and analyze the basic ideas of atomic theory and use them to explain the periodic table, and differentiate between elements and compounds.	1. Written lab reports 2. Quizzes and tests 3. Assigned homework 4. Various CATs	COM, CT, TIM, QR
Use the concept of chemical bonds to explain various chemical reactions and construct and interpret chemical	1. Written lab reports 2. Quizzes and tests 3. Assigned homework	COM, CT, TIM, QR

equations.	4. Various CATs	
State and analyze the properties of water and water solutions and use them to explain the concepts of dissolving, concentration, solubility, electrolyte, boiling point and freezing point.	1. Written lab reports 2. Quizzes and tests 3. Assigned homework 4. Various CATs	COM, CT, TM, QR
Explain acid-base properties, pH scale, properties of salts and hard and soft water.	1. Written lab reports 2. Quizzes and tests 3. Assigned homework 4. Various CATs	COM, CT, TM, QR
Describe and explain the process of natural radioactivity, use it to solve simple problems, compare different types of decay and methods of measuring radiation, and criticize different proposals for and against the use of nuclear energy as a major source of energy in the 21st century.	Project or class presentation or written paper on a physical phenomenon or an important issue such as the pros and cons of developing nuclear energy.	COM, CT, GSR
Analyze the energy flow in an ecosystem, compare different kinds of interactions between organisms, analyze the cycling of materials in the ecosystem, and appraise efforts towards the preservation of the environment.	1. Written lab reports 2. Quizzes and tests 3. Assigned homework 4. Various CATs	COM, CT, GSR

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
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:

OCE 1001C: Introduction to Oceanography – AA **3 Credits**

An interdisciplinary exploration of the world's ocean presented in a combined lecture-lab format. This course emphasizes the basic scientific processes that govern the ocean and focuses on the classic disciplines of geological, physical and chemical oceanography. Using the delicate marine environment of Southwest Florida as a natural laboratory, students will have the opportunity to apply the concepts learned in the classroom to the field.

II. PREREQUISITES FOR THE COURSE: None

III. GENERAL COURSE INFORMATION: Topic Outline

- Origins of Earth and the ocean
- Earth's structure and plate tectonics
- Features of the seafloor
- Marine sediments
- Seawater chemistry
- Physical properties of the ocean
- Atmosphere-ocean interactions and climate
- Ocean currents
- Waves and tides

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
Identify key oceanographic terms and apply them in discussion.	Successfully complete one or more of the following: exams; quizzes; writing assignments; discussion forums; oral, written, or electronic presentations; data interpretation and analysis exercises; or collaborative problem solving exercises.	COM
Collect and interpret oceanographic data using standard methods.		CT, TIM, QR
Describe the processes that created the Earth and the world's oceans.		COM, CT, QR
Define plate tectonic theory and distinguish between types of plate boundaries.		CT, QR
Illustrate the features of the sea floor that arise from tectonic activity.		CT, QR
Compare the physical, chemical and biological processes that affect the origin, transport and deposition of sediment.		CT, QR
Justify how the physical and chemical properties of seawater are important in the ocean.		COM, CT, QR
Summarize the role of the ocean in weather and climate.		COM, CT, QR
Explain the processes and properties of seawater that create ocean currents.		COM, CT, QR
Define ocean waves and identify the forces that generate them.		CT, QR
Explain the source of earth's tides and distinguish between tidal cycles.		COM, CT, QR
Appraise the role of humans and their negative impacts on the world's ocean.		CT, GSR, QR

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 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
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:

OCB 1001C: The Living Ocean – AA **3 Credits**

A study of the living ocean presented within the context of marine biology and biological oceanography, two closely related albeit distinct fields. This course emphasizes the basic scientific processes that affect marine ecosystems and the organisms in the sea. Using the delicate marine environment of Southwest Florida as a natural laboratory, students will have the opportunity to apply the concepts learned in the classroom to the field.

II. PREREQUISITES FOR THE COURSE: None

III. GENERAL COURSE INFORMATION: Topic Outline

- The non-living ocean as an environment
- Adaptations of marine life
- Primary production
- Factors that limit growth and production
- Marine food webs
- Survey of marine life from phytoplankton to marine vertebrates
- Marine ecosystems
- Relevant marine environmental issues

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	Assessment	Gen. Ed. Competencies
Identify key biological and oceanographic terms and apply them in discussion.	Successfully complete one or more of the following: exams; quizzes; writing assignments; discussion forums; oral, written, or electronic presentations; data interpretation and analysis exercises; collaborative problem solving exercises.	COM
Collect and interpret oceanographic data using standard methods.		CT, TIM, QR
Justify how the physical and chemical properties of seawater are important to marine life.		COM, CT, QR
Classify organisms using taxonomic keys.		CT, QR
Compare the types of primary production.		CT, QR
Identify and compare the major adaptations of marine life.		CT, QR
Explain which factors limit growth and primary production in the sea.		COM, CT, QR
Explain the structure and dynamics of marine food webs.		COM, CT, QR
Identify key characteristics of various types of marine life.		CT, QR
Compare different coastal ecosystems and defend why they are crucial to sustain a healthy ocean.		CT, GSR, QR
Appraise the role of humans and their impacts that threaten different marine ecosystems.		CT, GSR, QR

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 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:

OCB 2010: Marine Biology – AA **3 Credits**

This course is an introduction to the biology of the sea with an emphasis on the structural, physiological and behavioral adaptations of marine life. Discussions will center on organisms from the smallest microbes to the largest marine vertebrates and the roles they play in marine ecosystems. Special attention will be paid to the delicate communities of Southwest Florida, including mangrove forests and coral reefs.

II. PREREQUISITES FOR THE COURSE:

BSC 1010 or one year of high school biology.

Co-requisite: OCB 2010L

III. GENERAL COURSE INFORMATION: Topic Outline:

- Marine microbes
- Primary production
- Unicellular & macroalgae
- Marine angiosperms
- Invertebrate biology
- Marine fishes
- Marine reptiles
- Sea birds
- Marine mammals
- Coastal & deep marine ecosystems

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 key marine biological terms and apply them in discussion.	Successfully complete one or more of the following: exams; quizzes; writing assignments; discussion forums; oral, written, or electronic presentations.	COM
Describe the unique challenges of living in the sea.		COM, CT, QR
Classify basic features that distinguish the major marine phyla.		CT, QR
Compare and contrast the various adaptations of marine life to the ocean environment.		CT, QR
Differentiate between primary producers, decomposers and consumers.		CT, QR
Defend the critical role that key organisms play in sustaining healthy marine ecosystems.		COM, CT, GSR, QR
Appraise the impact that humans have in altering the ocean environment.		CT, GSR, QR

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 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
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:

OCB 2010L: Marine Biology Laboratory – AA **1 Credit**

This laboratory course complements the lecture-based course OCB 2010: *Marine Biology*, which examines the biological adaptations and diversity of life of the sea. Marine organisms and delicate Southwest Florida ecosystems will be studied through both hands-on laboratory activities and field trips.

II. PREREQUISITES FOR THE COURSE:

Co-requisite: OCB 2010

III. GENERAL COURSE INFORMATION: Topic Outline:

- Marine Microbes
- Primary production
- Unicellular & macroalgae
- Marine angiosperms
- Invertebrate biology
- Biology of marine fishes
- Marine reptiles, birds and mammals
- Coastal & deep marine ecosystems

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
Operate both dissecting and compound microscopes.	Successfully complete one or more of the following: exams; quizzes; writing assignments; discussion forums; oral, written, or electronic presentations.	QR
Classify marine life according to their basic features.		CT, QR
Use species identification guides, including taxonomic keys.		CT, TIM, QR
Demonstrate marine sampling techniques.		CT, TIM, QR
Apply classroom theory to the local marine environment.		CT, QR
Explain how humans depend on and impact the marine environment.		COM, CT, GSR, QR

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 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.