**East Central College Department-Division: Biology – Science Division**

**Program Assessment Planning Document Semester & Academic year: Spring 2012**

**ECC learning objectives** **(general education objectives and CLOs)** **& program objectives** **that this assessment will support**.

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| 1. **General Education Objectives**
 | 1. **Common Learning Objectives**
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| 1. Life and Physical Science
 | 1. Creative and critical thinking
 |
| 1. Higher order thinking
 | 1. Ethics and social responsibility
 |
| 1. Valuing
 |  |
| 1. Managing information
 | 1. **Program objectives** (Unit specific)
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***Unit I*: General Education Courses (**This unit report will be submitted every 3 years alternating with the other units in the Department.**)**

1. **Program objectives:**

*a. Describe and apply basic biological concepts*

*b. Apply the scientific method of creating and testing hypotheses.*

*c. Apply new understanding of biology in novel ways that are useful to humans or that solve problems faced by humans*

*d. Gather and analyze numerical information appropriate including creating and interpretation of graphs and diagrams.*

*e. Demonstrate appropriate technical skills related to biology.*

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| Target Courses | Objectives met  | Assessment Tool | Assessment Cycle  |
| **General Biology** (BI 1305) | I.a, I.b, I.c & I.d  | Semester exams, laboratory exams & reports, departmental Pre-test and post-test. | Semester of course offering |
| II.a & II.b. | II.a. - Collegiate Assessment of Academic Proficiency (CAAP) test; II.b. - Under development | To be determined by the college. |
| III.a, III.b, III.d & III.e. | Appropriate assessment tool for the objective chosen will be used | Start with III.a. in Fall 2013 |
| **Introduction to Life Science** (BI 1203)  | I.a, I.b, & I.c | Semester exams & departmental Pre-test and post-test. | Semester of course offering |
| II.a & II.b. | II. a. - CAAP test; II. b. – Under development | To be determined by the college. |
| III.a, III.b,& III.c | Appropriate assessment tool for the objective chosen will be used | Start with III.b. in Fall 2013 |
| **Environmental Science** (ES 1023) | I.a, I.b & I.e | Semester exams, online discussion forums on environmental issues & departmental pre-test and post-test  | Semester of course offering |
| II.b. | Under development | To be determined by the college. |
| III.b, III.c,& III.d | Appropriate assessment tool for the objective chosen will be used | Start with III.c. in Fall 2013 |
| **Principles of Biology I** (BI 1325) | Refer to Unit II | Refer to Unit II | Refer to Unit II |

***Unit II*: Biology Transfer Courses (**This unit report will be submitted every 3 years alternating with the other units in the Department**.)**

**III. Program objectives:**

1. *Apply the scientific method of creating and testing hypotheses.*
2. *Gather and analyze biological data including creating and interpretation of graphs and diagrams.*
3. *Demonstrate appropriate technical skills related to biology.*
4. *Identify and use the concepts, principles, and theories that constitute the core sub-disciplines of the biological sciences*
5. *Students will apply the concept of chemistry to the study of life.*

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| Target Courses | Objectives met  | Assessment Tool | Assessment cycle |
| **Principles of Biology I** (BI 1325) | I.a, I.b, I.c & I.d | Semester exams, laboratory exams & laboratory reports, & departmental Pre-test and post-test | Semester of course offering |
| II.a & II.b. | II. a. - CAAP test; II. b. – Under development | To be determined by the college. |
| III.a – III.e | Appropriate assessment tool for the objective chosen will be used | Start with III.a. in Fall 2013 |
| **Principles of Biology II** (BI 1415) | Content assessment | Semester exams, laboratory exams & laboratory reports, & departmental Pre-test and post-test | Semester of course offering |
| II.a. | CAAP test | To be determined by the college. |
| III.a – III.e | Appropriate assessment tool for the objective chosen will be used  | Start with III.b. in Fall 2013 |
| **Human Anatomy and Physiology I** (BI 2104) | Content assessment | Semester exams, laboratory exams & departmental Pre-test and post-test | Semester of course offering |
| II.a. | CAAP test | To be determined by the college. |
| III.a – III.e | Appropriate assessment tool for the objective chosen will be used  | Start with III.c. in Fall 2013 |
| **Human Anatomy and Physiology II** (BI 2115) | Content assessment | 1. Semester exams, laboratory exams & departmental Pre-test and post-test
 | 1. Semester of course offering
 |
| 1. Human Anatomy and Physiology Society(HAPS) Standardized Exam
 | 1. HAPS test will administered once every two years
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| II.a. | CAAP test | To be determined by the college. |
| III.a – III.e | Appropriate assessment tool for the objective chosen will be used  | Start with III.d. in Fall 2013 |
| **Microbiology** (BI 2404) | Content assessment | Semester exams, laboratory exams & laboratory reports, & departmental Pre-test and post-test | Semester of course offering |
| II.a. | CAAP test | To be determined by the college. |
| III.a – III.e | Appropriate assessment tool for the objective chosen will be used  | Start with III.e. in Fall 2013 |
| **Genetics** (BI 2005) | Content assessment | Semester exams, laboratory exams & laboratory reports, & departmental Pre-test and post-test | Semester of course offering |
| II.a. | CAAP test | To be determined by the college. |
| III.a – III.e | Appropriate assessment tool for the objective chosen will be used  | Start with III.a. in Fall 2013 |
| **Cell Biology** (BI 2045) | I.b & I.d. | Semester exams, laboratory exams & laboratory reports, & departmental Pre-test and post-test | Semester of course offering |
| II.a.  | CAAP test | To be determined by the college. |
| III.a – III.e | Appropriate assessment tool for the objective chosen will be used  | Start with III.b. in Fall 2013 |

***Unit III*: Biology Health-Related Courses (**This unit report will be submitted every 3 years alternating with the other units in the Department.**)**

**III. Program objectives:**

*a. Describe and apply basic course specific concepts*

*b. Apply the scientific method of creating and testing hypotheses.*

*c. Apply new understanding of biology in novel ways that are useful to humans or that solve problems faced by humans*

*d. Gather and analyze numerical information appropriate including creating and interpretation of graphs and diagrams.*

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| Target Courses | Objectives met  | Assessment Tool | Assessment cycle |
| **Intro. to Anatomy & Physiology** (BI 1802) | Content assessment | Semester exams, laboratory exams & laboratory manual, & departmental Pre-test and post-test | Semester of course offering |
| III.a., III.b., IIIc., & IIId. | Appropriate assessment tool for the objective chosen will be used  | Start with III.b. in Spring 2013 |
| **Nutrition** (HS1003) | Content assessment | Semester exams, diet analysis project & departmental Pre-test and post-test | Semester of course offering |
| III.a., III.b., IIIc., & IIId. | Appropriate assessment tool for the objective chosen will be used  | Start with III.a. in Fall 2013 |
| **Medical terminology** (HS1113) | Content assessment | Semester exams, case studies & departmental Pre-test and post-test | Semester of course offering |
| III.a. | Appropriate assessment tool for the objective chosen will be used  | Semester of course offering |
| **Introduction to Pharmacology** (HS1231) | Content assessment | Semester exams, and pre- and post-test | Semester of course offering |
| III.a., IIIc., & IIId. | Appropriate assessment tool for the objective chosen will be used  | Start with III.c. in Spring 2013 |
| **Basic Principle of Disease** (HS1243) | Content assessment | Semester exams and semester project/presentation | Semester of course offering |
| III.a., IIIc., & IIId. | Appropriate assessment tool for the objective chosen will be used  | Start with III.d. in Spring 2013 |

Date: \_\_\_\_\_\_\_\_\_ Division Chair Signature \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Vice President of Instruction Signature \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_