**EFFECTIVE: SEPTEMBER 2004**

# CURRICULUM GUIDELINES

**A.**

**M:** Course Objectives / Learning Outcomes

Upon completion of this course, students will:

1. Understand the origin of cells and the evolution of metabolism.

2. Be able to explain the composition and function of carbohydrates, lipids, proteins and nucleic acids in the cell.

3. Be able to explain how DNA provides a mechanism for heredity and to understand the flow of genetic information from DNA to RNA to protein.

4. Be able to describe the structure of the nuclear envelope and explain the mechanis 19.81441 0 Td( envelope )Co0 -1.14371

**O:** Methods of Instruction

This course involves four hours of lecture and/or tutorial/week and three hours of laboratory work. The information content is integrated with laboratory experiments, and textbook and scientific journal readings.

**P:** Textbooks and Materials to be Purchased by Students

Cooper, G. M. The Cell, A Molecular Approach. 2nd Ed. ASM Press, Sinauer Associates Inc. Massachusetts. 2000.

**Q:** Means of Assessment

| TYPE OF EVALUATION | POINTS |
|---|---|
| Class Tests | 5-15 |
| Laboratory | 15 |
| Term paper | 5-15 |
| Examinations | |
| -Term exam/s | 15-30 |
| -Final exam | 35 |
| TOTAL | 100 |

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|---|---|---|---|---|---|
| **GRADES:** | **$A^+$ 95-100** | **A 90-94** | **$A^-$ 85-89** | **$B^+$ 80-84** | **B 75-79** |
| **$B^-$ 70-74** | **$C^+$ 65-69** | **C 60-64** | **$C^-$ 55-59** | **P 50-54** | **F 0 - 49** |

Notes:
Laboratory:
Students will be evaluated based on their performance in the laboratory, short lab evaluations and lab reports.
Examinations:
Term exams will evaluate knowledge on subjects covered during the immediate past period. The final comprehensive examination will cover the entire course.

**R:** Prior Learning Assessment and Recognition: specify whether course is open for PLAR

At the moment, there is no provision for PLAR, other than by examining transcripts of biology courses taken within the last 5 years and comparing them to the course content of Biology 2321