

Notice to Prospective Biology 2113 and 2114 students

General Biology (BIOL 1106) is the prerequisite for Anatomy & Physiology I and II (BIOL 2113 and 2114). The Biology Department **strongly** encourages students to take BIOL 1106 to become adequately prepared for BIOL 2113 and 2114. However, if you have a **college-level** understanding of general biology concepts, you may try to bypass BIOL 1106 by taking the **Biology Competency Exam**.

The exam includes 100 multiple-choice questions, and you must achieve a score of 70% to bypass BIOL 1106. This exam may be taken **only once** by each student. You will not get credit for BIOL 1106, and it will not appear on your college transcript.

On the other side of this page, you will find a list of outcomes that we expect General Biology students to have mastered upon completion of BIOL 1106. These outcomes are essential to create a knowledge base necessary to be successful in BIOL 2113 and 2114. The Biology Competency Exam will test your knowledge in these areas.

To help you prepare for this exam, several General Biology textbooks are on reserve in the Library and are available for 3-day check out to interested students. Study the chapters of the textbook that pertain to the list of outcomes. *It is unlikely that you will pass the Biology Competency Exam without studying this material.* Make sure that you are confident with the material before scheduling an exam date. For reference, the common course outlines for BIOL 1106, 2113, and 2114, which contain course learner outcomes, are available in Educational Services.

If you have questions about the Biology Competency Exam, please contact Melissa Mills in the Biology Department (S106 Coon Rapids Campus) at 763-433-1332 or at melissa.mills@anokaramsey.edu.

Appointments are necessary for the Biology Competency Exam

To schedule on the Coon Rapids Campus: Information Desk 763-433-1240

To schedule on the Cambridge Campus: Darla McCann (IS 100) 763-433-1825 or darla.mccann@anokaramsey.edu

General Biology (1106) Outcomes

For prospective BIOL 2113 and 2114 students

Explain the chemical context of life, including:

- the nature of atoms, molecules, and bonding
- the properties of aqueous solutions, including acid-base properties
- the properties and categories of biological macromolecules

Demonstrate an understanding of cells, including:

- cell theory
- the structure of cells
- the generalized function and structure of organelles
- membrane structure and dynamics
- the general themes of metabolism, especially aerobic and anaerobic respiration & photosynthesis

Demonstrate an understanding of cell division, including:

- cell cycle
- mitosis
- meiosis
- cytokinesis

Demonstrate an understanding of inheritance, including:

- Mendelian patterns
- the chromosomal basis of heredity
- the nature of DNA
- the relationships between genes and proteins
- DNA technology

Explain evolutionary concepts, including:

- the evidence for evolution
- the process of natural selection and other agents of evolutionary change

Demonstrate an understanding of science as a process, including:

- the use of tools of biological investigation
- application of experimental design
- analyzing and reporting experimental findings