

Spring Semester 2010

**Biology III
Molecules, Genes, & Cells**

**Study Guide
& Lab Manual**

to accompany *Life: The Science of Biology*, 8th ed., by Sadava et al.

by A. Malcolm Campbell, Barbara Lom, Karen G. Hales,
Karen Bernd, Sophia Sarafova, and David Wessner

*Davidson College Biology Department
Davidson, NC 28035-7118*

www.bio.davidson.edu/bioIII

Notes on Using The Biology III Study Guide

The format for Biology III at Davidson College is very different from most introductory courses. Although we will cover similar material as traditional introductory biology classes do, we will cover the material in a different order. We will learn information in the context of interesting questions and on a “need-to-know” basis. It may take you a little time to adjust to this format, but this approach is very similar to the way you normally learn in your “real” life. You don’t read an encyclopedia just to learn, you look up a particular topic about which you want to know more. Therefore, we will use the *Purves et al.* textbook as a reference source in conjunction with this *Study Guide*. The *Study Guide* contains important information as well as points to sections in the text to read.

This *Study Guide* includes four types of reading assignments that should be **read before class**.

- 1)  Overview Reading – skim quickly to get a general idea of the content.
- 2)  Focused Reading -- read carefully and learn the material presented.

3)  Web Reading – read the web pages carefully.

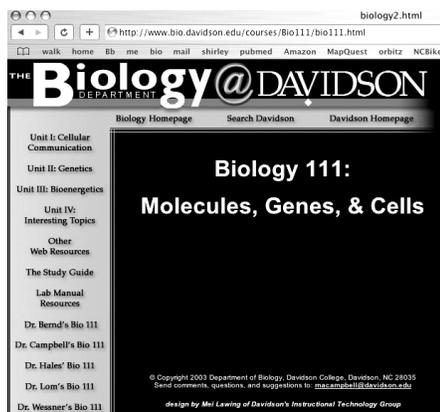
4)  News Items – read these at your leisure – they illustrate current biological research.

You should be able to answer the study questions found throughout this *Study Guide*, but you do not need to turn in written answers in to your instructor. Some of these questions will be discussed in class (so be prepared to answer them in class), and your exam questions may resemble some of the *Study Guide* questions.

This *Study Guide* is a *community* document that is revised every semester with input from Bio III students and faculty. Consequently, your feedback is very valuable in this process. If you notice an interesting example of biology in the news that would make a good “news item,” have suggestions for improving the *Study Guide*, and/or notice a typo, please forward your comments to your professor or to Dr. Hales (kahales@ davidson.edu).

Web reading mentioned throughout this *Study Guide* can be found at:
www.bio.davidson.edu/bioIII

Supplemental files, animated tutorials, flashcards, etc. for the Sadava *et al.* textbook can be found at:
thelifewire.com
(select the 8th edition with primates on the cover)



This *Study Guide* is also available for downloading at: www.bio.davidson.edu/courses/BioIII/studyguide.html

Dedication

The first edition of the Study Guide was written in 1993 by Dr. Jan Serie as part of an HHMI grant to Macalester College. Jan created the Study Guide concept and developed many stories we still use. Jan died of cancer in September, 2008, but her memory and legacy continue to live on in all those who have benefited from her creativity and inspiration.