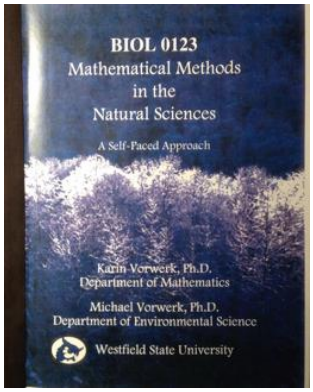
BIOL 0123

Mathematical Methods in the Natural Sciences (Hybrid-Online)



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Text: Mathematical Methods in the Natural Sciences – available in the Biology Office and on-line. It is highly recommended that you get a hard copy. The book is free.
Lab Manual: Also available in the Biology office and it is free
Technology: a TI 83, 84, 89 or equivalent. Specific guidance will be given for the TI83/84 only. You will also need **access to a scanner**. If you have a smart phone there are many scanner apps. Tiny Scan works nicely.

Course Objectives

The goal of this course is to help you learn and sharpen the basic mathematical skills which you will need for success in the Natural Sciences.

Strategy for Success

Each chapter includes an explanation of several related topics, examples pertaining to each topic, and then exercises which will help you assess your understanding of a given topic. Work each of the completed examples and the "You Try Its" as you encounter them. Math is a cumulative subject. That means an understanding of a topic you study early in the workbook will be required for you to understand one or more topics that occur later in the text. The "You Try Its" are problems that directly pertain to the material you just read. When you encounter a concept or an example that you don't understand, spend time formulating a question. For instance if you are reading one of the completed examples and do not understand how the author got from one step to the next, post your question on the "Ask the Instructor" page which is located in the Communications section of the on-line course.

Make sure you know and understand each homework problem. The answers to the "You Try Its" and the homework problems are given in the back of the book. Don't fall into the trap of looking up the answer first. Looking at the answer first can give you the very false impression that you know how to do the problem. The homework problems are taken from typical situations in various natural sciences. Consequently tests are based on the homework.

Course Requirements

Exams: There will be one exam for each unit
Laboratory: The laboratory exercises are designed to give an opportunity to use certain math skills that you will have just learned. They are hands on and will be conducted in room W202
Final Exam: This test must be taken at the normal time for this section. See course offerings booklet.