

MTH 245—Math for Biology, Management, Social Science  
Spring 2022 CRN 43636

**Instructor:** Mary Campbell

**Class meets:** MW 8:30-10:20 , in BC225 at the LBCC Benton Center. (Go up the main staircase, at the top of the stairs go down the short hall just to your left.)

**Office Hours:** After class in our classroom, for a half hour, or by appointment...just ask!

**email:** [Mary.Campbell@LinnBenton.edu](mailto:Mary.Campbell@LinnBenton.edu) (If you contact me through Moodle those messages will automatically be forwarded to my e-mail.)

**Materials:** USB drive for saving personal work, regular access to a computer and the Internet, Microsoft Excel, Calculator

**Course Description:** A survey course of discrete mathematics for non-physical science majors. Topics include systems of inequalities, linear programming and the simplex method, probability and probability distributions, and an introduction to descriptive statistics.

Prerequisite: a grade of C or higher in MTH 111 College Algebra

Course Outcomes:

1. Identify and solve linear programming problems
2. Analyze models for business and other applications
3. Collaborate to solve real world problems.
4. Use probability distributions to solve business and biological applications.

**Grading Policy:** Grades in this class are based on the following:

Homework: Best 10, 100 points (25%)

In Class Assignments: Best 10, 100 points (25%)

Projects: 2 (25 points each), 50 points (12.5%)

Midterm & Final Exams: 75 points each, 150 points (37.5%)

Grades will be assigned as outlined in the scale below:

A: 90% - 100%

B: 80% - 89%

C: 70% - 79%

D: 60% - 69%

F: 0% - 59%

Grades of Y and WP are not given in this course. A grade of In, Incomplete, may be assigned at the discretion of the instructor under unusual and verifiable circumstances. In the case of an In, the student must have completed the majority of the course, been in regular attendance and passing the course prior to the unusual circumstance.

Material covered:

Unit 1 Percent, Excel Basics, Linear Functions

Unit 2 More Linear Functions, Linear Programming

Unit 3 Probability, Modeling Randomness, Probability Distributions

Unit 4 Descriptive Statistics, Expected Value, Binomial and Normal Distributions

**Course Materials:** Instructional materials and assignments are in Moodle, LBCC's learning management system. You are not required to visit your Moodle shell before our first class, but please make sure that you are able to log in to <https://identity.linnbenton.edu/>.

Before logging in for the first time, you will have to claim your account, also at <https://identity.linnbenton.edu/>. If you have any problems logging into Moodle, please let the Student Help Desk know (541-917-4630, [student.helpdesk@linnbenton.edu](mailto:student.helpdesk@linnbenton.edu)).

**Expectations:** I expect that my students will be involved in class. This includes being present, asking questions and participating in discussions. You should come to class prepared (this means you should bring your notebook, USB device, paper and pencil, a calculator, and anything else you might need). I expect you to be respectful of everyone in the class, in word as well as behavior. Along these lines, I ask that you turn off your cell phone during class and put it away so as to avoid causing a distraction.

**Homework/In Class Assignments/Projects:** Any computer files or paperwork submitted for this class must be in a specific format to receive full credit. Guidelines will be given to follow for submitted work. You will be graded on your presentation of the problem(s) as well as correctness of work and solutions.

**Homework assignments** will be posted in Moodle. They will be due weekly. Some will be Moodle quizzes, some will be traditional paper and pencil but most of the homework will be done using Microsoft Excel. The homework is to be done individually. You may discuss homework with other students but each must write up and submit their own homework. Do not copy a file, which is cheating.

For each hour in class expect to spend 2 hours outside of class studying and doing homework. Do not wait to start assignments the night before they are due. Late assignments may not be graded.

**In Class Assignments (ICAs)** will be assigned most class days. In general, the first half of class I will present material and the second half of class you and a partner will be working on the in class assignments, and asking me questions as needed.

**Projects:** There will be two projects during the quarter. You will have several days to complete the project and may work with a partner.

**Tests:** There will be two tests; one during the middle of the quarter and a final exam during the scheduled final time. The date of the first test will be announced in class ahead of time. If you miss a test you will receive a score of zero for that test. Testing at an alternate time will only be allowed in unusual and verifiable cases.

**Help:** If you have questions, PLEASE come see me. I have scheduled zoom office hours but we can arrange other times, too. At the very least, talk to me before or after class about questions you may have.

Some of the content of this course is unique and not everyone working at the Math help Desk is familiar with all of it. Give them a try, but if you are not getting a good answer, don't get upset, just contact me.

- The Math Help Desk can be accessed via: <https://linnbenton.zoom.us/j/94627678411> and is open the following hours:
- Monday - Friday: 9am - 8pm
- Saturday: 11am - 4pm
- Sunday: 11am - 3pm

**Academic Honesty:** It is understandable that you will discuss your homework with your classmates but you are expected to write up your own results, be it on paper or in Excel. I assume that you are ethical and honest. However, if there is an incident of academic dishonesty (cheating), which includes sharing computer files, you will receive a score of zero for that assignment/test and the incident will be reported to the college administration for possible further disciplinary action. If there is a second offense, you will receive a grade of F for the course and the incident will be reported to the college administration with a recommendation for disciplinary action.

**Other:** LBCC maintains a policy of nondiscrimination and equal opportunity in employment and admissions, without regard to race, color, sex, marital and/or parental status, religion, national origin, age, mental or physical disability, Vietnam era, or veteran status.

Students who may need accommodations due to documented disabilities, who have medical information which the instructor should know, or who need special arrangements in an emergency should speak with their instructor during the first week of class. If you believe you may need accommodations but are not yet registered with the Center for Accessibility Resources (CFAR), please visit the [CFAR Website](#) for steps on how to apply for services or call (541) 917-4789.

To promote academic excellence and learning environments that encourage multiple perspectives and the free exchange of ideas, all courses at LBCC will provide students the opportunity to interact with values, opinions, and/or beliefs different than their own in safe, positive and nurturing learning environments. LBCC is committed to producing culturally literate individuals capable of interacting, collaborating and problem-solving in an ever-changing community and diverse workforce.