

Syllabus
Math 10: Nature of Math—Fall 2020
Section 0931

Instructor: David Collier, dcollier@santarosa.edu, 707-636-4806 (voice or text; text is best)

Class Hours: MW, 4:30 – 6:00 p.m., <https://santarosa-edu.zoom.us/my/collierrocks>

Office Hours: MW, 3:45 – 4:15 p.m., <https://santarosa-edu.zoom.us/my/collierrocks>

Text: Math In Society, Edition 2.5: David Lippman:

<http://www.opentextbookstore.com/mathinsociety/2.5/MathinSociety.pdf>

Course Description: When you complete this class, you will: (1) be familiar with a variety of ways math is used to order and power society; (2) have improved the way you communicate ideas that depend on mathematical concepts or reasoning; (3) gained basic competency with spreadsheets. The course is divided into five modules:

- Module 1: Apportionment and Fair Division
- Module 2: Finance and Growth Models
- Module 3: Sets and Probability
- Module 4: Cryptography
- Module 5: Historical Counting Systems

Module Description and Resources

Each Module has a homework assignment, a project, and a quiz. The Modules are weighted equally in the grading. The homework is based on the text and accompanying videos. The projects are based on material covered in class. The quizzes are based on material covered in the text and accompanying videos and material covered only in class. Class videos are posted in Canvas within a day or so of the class meeting.

Required Resources

- Ability to attend class online at the scheduled times with reliable audio and video and to watch streaming video for any classes missed
- Ability to take photos and upload them to an online portal as pdf files
- Access to Google Sheets or an equivalent spreadsheet program
- Access to Google Docs or an equivalent word processing program

Grading

Homework—10%; Projects—15%; Quizzes—50%; Final Exam—25%

- Homework. Each module has a problem set to help you learn the material presented in the text and the accompanying online videos. These sets will include questions on material that wasn't covered in class.
- Projects. Each module has a problem set for you to apply and communicate the math and techniques covered in class.
- Quizzes. Each module has a quiz that is based material covered in the module homework and in our class sessions for the module.
- Final Exam. There is a comprehensive final exam, based on the module homework and class quizzes. It will be due on Monday, December 14, 2020 at 6:45 pm.

TENTATIVE SCHEDULE of CLASS ACTIVITIES

Monday		Wednesday	
Aug 17	Module 1	Aug 19	Module 1
Aug 24	Module 1	Aug 26	Module 1
Aug 31	Module 1	Sep 2	Module 1 Review
Sep 7	HOLIDAY	Sep 9	Module 2 Module 1 Closes at Class Start
Sep 14	Module 2	Sep 16	Module 2
Sep 21	Module 2	Sep 23	Module 2
Sep 28	Module 2 Review	Sep 30	Module 3 Module 2 Closes at Class Start
Oct 5	Module 3	Oct 7	Module 3
Oct 12	Module 3	Oct 14	Module 3
Oct 19	Module 3 Review	Oct 21	Module 4 Module 3 Closes at Class Start
Oct 26	Module 4	Oct 28	Module 4
Nov 2	Module 4	Nov 4	Module 4
Nov 9	Module 4	Nov 11	HOLIDAY
Nov 16	Module 5 Module 4 Closes at Class Start	Nov 18	Module 5
Nov 23	Module 5	Nov 25	Module 5
Nov 30	Module 5	Dec 2	Module 5 Review
Dec 7	Final Review Module 5 Closes at Class Start	Dec 9	Final Review
Dec 14 at 6:45 p.m.	Final Exam Due		