# Math 300, Introduction to Mathematical Ideas Instructor: Matt Nelsenador

Course #14321 and 14322, Fall 2024, 3 units Time: MW 11:30 AM – 1:50 PM, Location: Elk Grove Center Room 115 email: nelsenm@crc.losrios.edu Website: www.crc.losrios.edu/nelsenm Message phone: 916–286–3691, then #, then 14222 Office hours: MW 10:30 AM – 11:00 AM, in the classroom, or by appointment

**Prerequisite:** Intermediate Algebra or the equivalent. Or a qualifying assessment score. Or a successful prerequisite challenge (see Math Dept.) Prerequisites are verified at enrollment. Instructors are not capable of overriding the requirement.

Text: opentextbookstore.com/mathinsociety

Additional note: A scientific calculator is required. You should bring it to class every day. Keep it in good working order. You don't want your calculator to let you down.

# **Description of course:**

Introduction to Mathematical Ideas allows liberal arts students to meet general education mathematics requirements while exploring concepts and objects of mathematics in a meaningful way. This course is designed to show some of the essence and quality of mathematics, and to enhance precision in the evaluation and expression of ideas, thereby developing a student's quantitative reasoning skills. It is recommended primarily for students who do not plan to major in a math-related field but may also be of interest to others. Course content may include topics from numeration systems, logic, geometry, probability, statistics, algebraic modeling, number theory, consumer mathematics, graph theory, voting and apportionment, and perhaps others; concepts of contemporary mathematics may be covered. Emphasis is placed on the deductive process.

# **Student Learning Outcomes:**

Categorize and analyze mathematical objects and apply them to real life problems. Solve mathematical problems from different branches of mathematics.

Interpretations of mathematical objects in a variety of analytical settings and performing different operations to combine these objects.

Apply the mathematical concepts or objects to assess a situation , make decisions, and solve the real life problems.

Defend some aspects of the mathematics used in real life applications.

And all the rest. See in-class handout or website for the full list.

# Grades received are earned based on the performance standards outlined in this syllabus.

# Letter grades:

Letter grades will probably be as follows A: 720 to 800 points (90% and up) B: 640 to 719 points (80% to 90%) C: 560 to 639 points (70% to 80%) D: 480 to 559 points (60% to 70%) F: below 480 points (below 60%) Grading: (800 points possible) Homework: 60 points Labs: 280 points

Exams 1–3: 100 points each Final: 160 points

Dates to remember:		
First Day	Monday	8/26
Holiday (Labor Day)	Monday	9/2
Last day to drop with no notation	Sunday	9/8
Exam 1	Monday	9/23
Exam 2	Monday	10/21
Holiday (Veterans Day)	Monday	11/11
Last day to drop with "W" grade	Tuesday	11/19
Exam 3	Wednesday	11/20
No class on	Monday	12/16
Final	Wednesday	12/18, 10:15 AM – 12:15 PM

# If you have a conflict with a test date, please contact me as soon as possible.

**Email distribution list:** I will send group emails to the Los Rios email addresses for all of you. If you choose, you may have your Los Rios email forwarded to another email. You should regularly check your Los Rios email and/or the email that your Los Rios email gets forwarded to. You may use a non-Los-Rios email to send email to me.

**Email in general:** Please send email anytime with questions or comments. I check email once or twice per day.

**Homework:** You learn math through your right arm.\*\* Homework will be approximately weekly. (See HW schedule.) Homework will not be done online using MyMathLab. It will be problems from the online book, or other problems that I assign, turned in on paper. Please fold your homework vertically and write your name on the outside. Also, please staple. It's best to staple before coming to class. Please remove any paper scraps if you use notebook paper. Homework will be graded for completeness, **but you must show your work**. You may (and are encouraged) to work on homework with other students, but every student must turn in an individual assignment. Also, you are encouraged come to office hours for HW help. There will be an unknown number of homework assignments, but the total points will equal 60. Late homework will earn no credit.

Daily Schedule for Many Class Days:	<b>Daily Schedule for Test Days:</b>
11:30 – 12:20 Lecture	11:30 – 12:20 Review
12:30 – 1:50 Lab	12:30 – 1:50 Exam

**Progress reports:** Progress reports will be provided with each graded exam. But the grading scheme is pretty simple, so you can probably keep track yourself. Divide the total earned points on graded assignments by the total points possible so far to get your current percent, and compare to the percents on page one of this syllabus. If you want to, you can double-check with me at any time by sending email and requesting this information.

\*\*or your left arm if you are left-handed.

**Exams:** The exams will focus on only the most recent material. On exam days, there will be review for about 50 minutes. Then the test will take place in the second part of class. The **final exam** will last about 2 hours, and will cover the entire semester.

Test problems will be similar in style to problems done in class and on homework. Calculators are allowed on tests, but please show enough work so that I can figure out what you did. Calculators will be necessary for success on many exam problems.

You are not allowed to use, look at, touch, or turn off your phone or online device during a test. Please turn off your phone before the exam starts. If your phone rings, do not attempt to turn it off. I will do it for you. Also, you are not allowed to leave the room during an exam. If you leave the room, then you are done.

Make-up exams will be given only for serious and compelling reasons (illness, jury duty, military duty, your wedding, etc. Please provide appropriate documentation.) If you are feeling ill before a test starts, let me know before the test starts. Additionally, make-up exams are allowed only if I am notified *before* the exam is given. Email works well. Makeup exams, if allowed, will be on the following Saturday, at 10 AM, at Pocket-Greenhaven Library, 7335 Gloria Drive.

Lab Assignments: Every class day, including the first day, and except for test days, will have a lab portion. Students may collaborate and/or use the Internet on lab assignments. You may turn in an individual assignment, or work in a group of up to 3 people. Each lab is due at 12:30 PM on the class day after it is assigned, with the exception of Lab 1 part 2. Labs will be done on paper, and submitted in class. If you are going to be absent, you may email the lab. All labs will be 10 points, except for the first which is 20 points.

**Devices:** Please do not operate your phone or Smartwatch during class. These devices are far too small to use for taking notes. Please silence your devices before entering the room, and put the phones away. Please do not use larger electronic devices for non-math activities.

Attendance: Coming to class is a really good idea in general. I totally recommend it. But for the love of all that we hold dear, please stay home if you are sick. I will provide you with printed notes as long as you do not abuse this privilege.

**Tardiness** is disruptive to those students who have made the commitment to come to class on time, every day. I understand if you are late once or twice. Things happen. But I will speak individually to students who are chronically late (more than once per month). If you arrive late or re-enter class, please silently go behind the rest of the students to find a seat. If you leave during class, please silently go behind the rest of the students as you leave.

#### **Noise-related Behavior:**

\* If you are going to cough or sneeze, please do it quietly.

\* If you are going to bless someone's sneeze, please make sure that person is your neighbor.

(If not, let the sneezer's neighbor have the honor. Give everyone a chance.)

\* If you are going to crack your knuckles or any other body part,

# DON'T!

**Much of** the first few classes will be spent on logistical items, including but not limited to, taking roll, adding and dropping students, and getting to know each other. Please be patient. The math will start soon! Also note that this is a **3-unit class** (2 units lecture, 1 unit lab). By college standards, the course requires 2 hours of outside work per week per lecture unit. You are expected to work **4 hours per week** outside of class.

Another quick note: Bullying, intimidating, or abusing another student is not allowed and will not be tolerated.

DSPS forms: If you have an accommodation sheet, please notify me as soon as possible.

**Cheating policy:** Don't do it! Cheating will not be tolerated. Cheating includes, but is not limited to, copying during a test, using or providing unauthorized material (including a phone or online device) during a test, taking a test for someone else, allowing someone to take a test for you, talking during a test, altering a test and submitting it to be regraded, providing false information to an instructor or college official, forging my signature, etc. Students found guilty of cheating will be given a zero on that assignment (first time) or an F for the class (second time.) Cheating also includes copying homework answers from the book; sometimes it is clear that something has been copied. Also, no sharing calculators or formula sheets during exams. This is cheating too, by both individuals.

You are a now professional student, and everyone benefits when we all act professionally. Behavior that disrupts the learning environment during class or in the classroom will not be tolerated. Repeat offenders may be asked to leave class for that day. Disruptive behavior includes, but is not limited to: using an electronic device or other toy in the classroom, failing to follow any mask rule for indoor spaces on campus, chatting with your neighbor while I am talking, any other unnecessary noise, obnoxious or disrespectful chatter, such as "can you say that in English" or "are you really a teacher" or "this is useless" or "this class is the biggest joke" or "this is ridiculous" or similar, using obscene or inappropriate language inside the classroom, being late excessively often, excessive trips in and out of the room, walking in front of other students as you move in or out of the room during lecture, and personal hygiene, including nail work, eye work, ear work, etc.

# Suggestions for success: Come to class, on time, every day. Do your homework. Don't get behind. Read and keep this syllabus. Study in groups, if that's your thing. Read the book. There might be something really neat! Write down and/or remember the things I say in class.

# Food and drink rules:

- 1) Nothing loud
- 2) No spills
- 3) Nothing comes out of your mouth
- 4) Absolutely no corn nuts!

# **Other expectations:**

- Ask a question if there's something you don't understand. I will answer your question in class or over email. If you don't ask, I don't know there's a problem. Please! Ask! Seek additional help if you need it. Investigate your options at the Math Center on Main Campus
- and/or Elk Grove Center and/or or online. Consider forming a study group with other students in class. Come to my office hours. (Free! Cheaper than a tutor.)
- Some topics will use algebra, others will not. If your algebra skills are not-so-good, please ask lots of questions during lecture.
- Work hard, and you'll probably pass the class.