Elementary Math Class (Online)

Isaac Wilhelm (isaac.wilhelm@rutgers.edu, isaacwilhelm.com) Whatcom Literacy Council January 19 – March 9, Spring 2021 Office hours: by appt.

Course Description

Basic math is helpful in many different ways. Adding, subtracting, multiplying, and dividing numbers is useful when buying groceries, paying bills, and planing for events. Fractions are useful when determining which loan to take out on a car, how much food you can make in a certain amount of time, and which job pays more overall. So basic math is pretty useful, most every day.

In this course, students will learn the basics of this useful kind of math. On the first day, I will ask students to share what they are already familiar with, what they hope to learn, and so on. The rest of the course will be designed to help students learn what they want to learn, at whatever speed is best for them. Tentatively, I plan to cover addition, subtraction, multiplication, and division for both whole numbers – these are numbers like 0, 1, 2, and so on – and, in part, for fractions – like $\frac{1}{2}$, $\frac{4}{3}$, $\frac{7}{21}$, and so on.

Course Website

Course materials, including practice problems, will be posted to the course website:

is a a cwilhelm.com/Courses/2021/Elementarymath/elementarymathWi2021.htm

Course Requirements

Here is a list of basic requirements for this course. I strongly recommend that you complete them: by doing these requirements, you will learn a lot of math.

- 1. Attendance: you must show up to each course.
- 2. Midterm: there will be a midterm. It will take place during class, and it will not take more than 30 minutes. After the midterm, I will explain how to solve some of the problems.
- 3. Final: there will be a final. As with the midterm, the final will take place during class, and it will not take more than 30 minutes. After the final, I will explain how to solve some of the problems.

I will not assign letter grades in this course. Instead, at the end of the course, students who complete all of the above three requirements—attend each lecture, take the midterm, and take the final—will have the option of receiving two different kinds of feedback about (i) what they learned, and (ii) what they should try to learn in the future.

The first kind of feedback will take the form of a written evaluation: I will write a couple paragraphs about what the student did well, where the student needs to improve, and so on. The second kind of feedback will take the form of a meeting: if the student would like, I will have a Zoom meeting with them to discuss what they did well, where they could improve, and so on.

If a student wants to receive either or both kinds of feedback, they must email me to ask for it. I strongly encourage all students to do this. The feedback will be nice, kind, constructive, helpful, and encouraging. It will give students a sense for what they have learned, where they seem to be struggling, what the next steps might be, and more.

Just to reiterate: this feedback is optional. If a student does not want either kind of feedback, that is perfectly fine.

Goals for the Course

By this course's conclusion, you should be able to

- add, subtract, multiply, and divide whole numbers,
- compare the sizes of different fractions,
- add and subtract those fractions, and
- explain the basic ideas behind elementary math.

Accessibility

This class should be a great, fun, and educational experience for everyone. And of course, everyone deserves equal access to the class. Disabled students are encouraged to speak with me, if that would be helpful, about any accommodations which they might need.

Schedule

Here is a tentative schedule for the course. It may well change, depending on what students want to learn, what everyone's background is, and any other challenges that might arise.

January 19: Welcome, and Addition

- Class begins at 5pm.
- Discuss what students want to learn.

• Main topic: adding whole numbers.

January 26: Subtraction

- Class begins at 5pm.
- Summarize last week.
- Discuss practice problems.
- Main topic: subtracting whole numbers.

February 2: Multiplication

- Class begins at 5pm.
- Summarize last week.
- Discuss practice problems.
- Main topic: multiplying whole numbers.

February 9: Division

- Class begins at 5pm.
- Summarize last week.
- Discuss practice problems.
- Main topic: dividing whole numbers.

February 16: Summary

- Class begins at 5pm.
- Midterm exam.
- Review the exam.
- Main topic: review addition, subtraction, multiplication, and division.

February 23: Fractions

- Class begins at 5pm.
- Summarize last week.
- Discuss practice problems.
- Main topic: introduce fractions.

March 2: Fractions

- Class begins at 5pm.
- Summarize last week.
- Discuss practice problems.
- Main topic: adding and multiplying with fractions.

March 2: Fractions

- Class begins at 5pm.
- Final exam.
- Review the exam.
- Main topic: review the entire course.