Name: Amanda Davis	Course Module Title: The Mathematics of the Qualified Majority in the European Union
	Discipline: Mathematics

Intended Course:	Quantitative Literacy

Course Objectives:

→ Judge the reasonableness of results using estimation, logical processes, and a proper understanding of quantity
→Describe, analyze, and interpret statistical information such as graphs, tables, and summarized data to draw appropriate conclusions when presented with actual statistical studies
→Determine probabilities to make informed decisions
→Analyze civic and/or societal issues and critique decisions using relevant mathematics

→ Compare and contrast the voting processes of the EU and the US
→ Predict outcomes of hypothetical votes in the EU based on statistical research

Assigned Readings and Video:

→ [Coal production and consumption see rebound in 2021 - Eurostat](#)
→ https://www.europarl.europa.eu/factsheets/en/sheet/152/immigration-policy

Content & Delivery: In-class

Course Content:	Instruction & Delivery (lecture, discussion, group work):
→ Students will be provided with links and articles to research their country's positions. → Students will use proportions and calculations to determine many combinations of possible qualified majorities.	→ In class simulation, peer sharing, group exchange, discussion.

Assessment:

→ A) Students will complete a preliminary study of the EU and their given country.

→ B) Students will work in class on a simulation and follow with a reflection writing.

Resources and Materials:

[What does the council of the EU do?](#)
[Legislation in the EU](#)
[What is qualified majority?](#)
[The US legislative process](#)
[Coal production and consumption in the EU](#)

Part One: Examining the legislative process of the European Union
Preliminary data and research

In this project, we will study the legislative process of the European Union. To begin, complete the questions below and then follow up with the preliminary reading assignment.

1. How many countries are in the European Union? _____

2. How many countries would make up 55% of the countries in the EU? _____

3. Determine the population of the entire European Union. _____

4. Calculate 65% of the population of the EU. _____

5. Review the website: What is qualified majority? Explain in your own words what a qualified majority is:

6. What do you think is the benefit of a qualified majority vote?

7. Refer to the website: The US legislative process
    a. What is the number of votes required for a simple majority vote in the House of Representatives?_____

    b. What is the number of votes required for a simple majority vote in the Senate?_____

8. How do the voting methods of qualified majority and simple majority differ?

9. Which method would you prefer as a citizen and why?

Part Two: A numerical study of individual European Union countries

This section of our project is a more in-depth look at the country you have been assigned. Read the two articles based on coal production and immigration below and then reflect and answer the following questions.
Coal production and consumption see rebound in 2021 - Eurostat
https://www.europarl.europa.eu/factsheets/en/sheet/152/immigration-policy

1. Find the population of your country. _____
2. What percentage of the population of the EU is your country? (round to 3 decimal places)_____
3. Using this website Coal production and consumption in the EU and others you may find helpful, explain how reliant your country is on the coal industry?

4. Using this website Total Immigrant and Emigrant Populations by Country look at the immigration numbers for your country. Is your country one of the highest or lowest in immigration in the EU?

5. What are the major exports and imports for your country?

6. What is the GDP for your country?

7. What is the unemployment rate for your country? How does this compare to other countries in the EU?

Part Three: In class simulation of an EU Council qualified majority vote
Instructor notes for class

Class begins with opening lecture slides and summary of the qualified majority vote including background on the Commission introducing legislation and the connection of the EU Council and Parliament on decision-making.

Each student has been given a country of the European Union and done the preliminary research.

Question to the class: How many possible combinations of 15 can be created out of 27 countries?

Work in groups to play with the numbers and then look at the idea of combinations using the voting calculator.

What is the largest group of small population countries that can make up the 65%

What is the smallest group of large population countries that can make up the 65%?

Instructor chooses 15 states randomly. The class calculates if the population adds up to the 65% necessary for the qualified majority. If it does not, discuss which countries would be enough to make the majority and start over!

Once we find a majority ask the question "If these countries were voting on a resolution to limit coal usage to support the Green Deal initiatives, would your country vote no or yes and why?"

Again, choose a random sample of 15 countries:
Once we find a majority ask the question "If these countries were voting on a resolution to allow for additional immigration, would your country vote no or yes and why?"

Finish with a one-page reflection assignment on the following:
1. What did you learn in this activity?
2. How does the mathematics of voting affect legislation in the European Union?