

Course Number

MTH-062-01

Course Description

One part of this course will cover polling, answering questions such as: were the 2016 U.S. Presidential election polls as inaccurate as often reported? What are margins of error, exactly? How many people must be surveyed for accurate results? Which people? To help answer these questions, the course will include background material on probability and statistics. Another part will be on voting theory, where we will look into designing elections from scratch, in search of the best system for converting the preferences of the voters into an election winner. This will lead to voting paradoxes and a discussion of Arrow's impossibility theorem. Throughout the course, we will draw on many examples of voting, such as the U.N. Security Council, the election of popes, the academy awards, infamous historical elections, and the U.S. presidential election. Additional topics will be chosen from gerrymandering, Congressional seat apportionment, and game theory

Academic Term

20/FA

Instructor

Jauregui, Jeffrey

Location & Meeting Time

Visual Arts Building-204+ M/W/F 10:50AM-11:55AM LEC

Petition

Y

Credits

1.00

Capacity

25

Total Students

25

Additional Information

<http://muse.union.edu/mathematics>

Common Curriculum

QMR Quant & Math Reasoning

Academic Department

Mathematics

Field Of Study

Mathematics (MTH)