QUANTITATIVE REASONING

The purpose of the Quantitative Reasoning requirement in the Liberal Studies Program at DePaul is to help students to become confident, critical, and capable users of quantitative information of all kinds. Quantitative Reasoning provides a foundation in quantitative skills for students for their other Liberal Studies courses, for their disciplinary courses at DePaul, for their careers, and for their personal lives.

The program addresses the need for quantitative and numerical literacy in response to the enormous expansion in the use of quantitative methods and information in the social and physical sciences as well as civic and work life. The use and misuse of quantitative information in public policy and scientific issues are particularly emphasized; students are taught to recognize the limitations of the quantitative methods as well as the insights they provide. Students learn by working with data sets from many different disciplines, such as psychology, environmental science, economics, finance, sociology, and history. Students write critiques of quantitative arguments, gather data, and present arguments of their own. The course is taught by instructors from across disciplines.

Preferably in their first year, students take:

Course	Title	Quarter Hours
MAT 120	QUANTITATIVE REASONING	4

Some students may be required to take preparatory math classes before being eligible to enroll in MAT 120. Readiness for MAT 120 is determined by a math placement test taken online after admission. Some students may meet the requirement by AP score, transfer credit, or proficiency exam. Certain majors do not require MAT 120. Students are advised to consult their advisor and the University Catalog for the particular Liberal Studies requirements for their major.

QR and MCD Waiver

Depending on a student's program of study, they may need to take MAT 120 QUANTITATIVE REASONING. Readiness for MAT 120 is determined by the math placement test taken online after admission. Students may need to take developmental coursework prior to MAT 120. The MAT 120 requirement may be waived by credit already earned for advanced math coursework or by passing a dedicated proficiency exam. Students who complete MAT 120 and also successfully complete required work in the Math and Computing Domain (both Computational Reasoning and Statistical Reasoning categories) may take one less Learning Domain course. Students may not apply the course reduction to any Domain where only one course is required, and it may not be applied to the Scientific Inquiry Domain.

Proficiency Exam

The Quantitative Reasoning Proficiency Exam may be taken at any time by any student. A student who passes the Proficiency Exam is exempt from the QR requirement. Passing the exam earns no credit hours; a student who passes the exam will have an additional open elective in his or her program.

Learning Outcomes

Students will be able to:

- Use proportional reasoning and percent change to analyze data in context.
- Make appropriate and effective graphs to communicate and visualize quantitative information.
- Critique graphs and charts in the media.
- Recognize disaggregation as a factor in interpreting data.
- Use and interpret linear and exponential models.
- Make algebraic calculations within a spreadsheet using cell addresses and formulas and use statistical, logical, and financial functions.
- Critically assess the sources, importance and factual accuracy of quantitative information.
- Make effective quantitative analyses in written form with supporting graphs and/or tables.