## QUANTITATIVE REASONING (QR)

## (minimum of 6 credits)

Students must complete a minimum of two 3-credit QR courses, one of which must be a college-level mathematics course taught by the Mathematics Department, numbered "MA-XXX," and specifically approved for QR credit. Terms such as "math," "mathematics," "quantitative," or similar in a course title or description do not guarantee that a course meets the above criteria, and courses such as MA 098 and MA 099 do not qualify because they do not satisfy the QR requirement. The MA course must be completed within the first 60 credits of study, though exceptions may apply for transfer students. All students must pass the Math Placement Test at the stipulated level in order to register for a MA course above MA 105.

Courses in this area:

- Acquaint students with formal systems, procedures, and sequences of operations.
- Strengthen students' understanding of variables and functions.
- Apply mathematical techniques to the analysis and solution of reallife problems.
- Develop an understanding of and facility with statistical analysis, including an understanding of its applications and limitations. Courses meeting these criteria must emphasize why statistical inference works and not simply how to use statistical techniques.
- Strengthen understanding of the relationship between algebraic and graphical representations.
- Emphasize the importance of accuracy, including precise language and careful definitions of mathematical concepts.
- Understand both underlying principles and practical applications of one or more fields of mathematics.

| Code | Title | Credits |
| :--- | :--- | ---: |
| CH-120 | General Chemistry I | 4 |
| CS-101 | Basics of Computer Science | 3 |
| CS-120 | Microcomputer Applications | 3 |
| CS-124 | Health Informatics | 3 |
| CS-131 | Data Visualization and Statistical | 3 |
| CS-135 | Programsis | 3 |
| CS-155 | Computer Networking and Security | 3 |
| CS-265 | Database Applications | 3 |
| EC-150 | Statistics | 3 |
| ED-322 | Contemporary Education Policy | 3 |
| EV-348 | Fundamentals of Earth Data Analytics | 4 |
| GS-217 | Spatial Data Methods | 3 |
| GS-348 | Fundamentals of Earth Data Analytics | 4 |
| MA-105 | Survey of Mathematics | 3 |
| MA-107 | Mathematical Explorations-- Invitation | 3 |
| MA-130 | To Effective Thinking | 3 |
| MA-131 | Number and Operations for Teachers | 3 |
| MA-132 | Patterns, Functions and Algebra for | 3 |
| MA-150 | Teachers | 3 |
| MA-180 | Geometry, Measurement, Probability <br> and Statistics for Teachers | 3 |
|  | Statistics I | 3 |


| MA-190 | Pre-calculus | 4 |
| :--- | :--- | :--- |
| MA-200 | Calculus I | 4 |
| MA-201 | Calculus II | 4 |
| MA-202 | Business Calculus | 4 |
| NU-333 | Nursing Informatics (track 2) | 3 |
| PH-115 | Logic I | 3 |
| PH-215 | Logic II | 3 |
| PS-275 | Psychological Statistics | 4 |
| PS-340 | Psychological Testing and | 3 |
| TH-175 | Measurement | 3 |
| UR-214 | Introduction to Stagecraft | 3 |
| UR-232 | Urban Demography | 3 |

