The liberally educated person knows how to be a critical thinker, and a critical thinker asks good questions. To take a quantitative perspective on the world means that the questions we form can be best be answered with some analytical thinking about real data or theoretical models. When discussing a current issue like the large number of people without adequate health care, the quantitative thinker might ask, “How many people have this problem? How do we know? Is lack of health care highly associated with level of education? How much does the problem vary between highly industrialized nations and the third world? How much does it vary between countries of similar development?” A quantitative perspective on the world provides a useful, and often beautifully enlightening, way to engage questions.

The proposed liberal studies major in quantitative perspectives (LSM-QP) is different than a traditional math major or minor in that it does not focus on a large set of skills and techniques, but rather on considering how to make the connections between quantitative analysis and other disciplines.

Course requirements:

**Deterministic Perspective**

*Complete one of the following according to math placement.*

- MA 126 Applied Calculus for Business II
- MA 139 Calculus II
- MA 249 Case Studies in Mathematics

**Probability and Statistics Perspective**

*Choose one course from the following list:*

- MA 225 Probability Models for Business Decision-Making
- MA 226 Continuous Probability For Risk Management
- MA 243 Discrete Probability
- MA 252 Mathematical Statistics
- MA 343 The Mathematics of Discrete Options Pricing
- ST 242 Applied Business Statistics

**Interdisciplinary Perspective**

*Choose one course from the following list:*

- MA 205 Chaos, Fractals and Dynamics
- MA 223 Linear Models for Business Decision-Making
- MA 227 Math Modeling in Environmental Mgmt
- MA 233 Calculus III
- MA 235 Differential Equations
- MA 237 Linear Algebra
- MA 243 Discrete Probability

**Student Interest Perspective**

*All students must, in consultation with the LSM advisor, take one other MA course numbered 200 or higher.*

- MA 205 Chaos, Fractals and Dynamics
- MA 207 Matrix Algebra with Applications
- MA 223 Linear Models for Business Decision-Making
- MA 225 Probability Models for Business Decision-Making
- MA 227 Mathematical Modeling in Environmental Mgmt
- MA 233 Calculus III
- MA 235 Differential Equations
- MA 239 Linear Algebra
- MA 243 Discrete Probability

**Applied Quantitative Perspectives (Choose 4 courses)**

The student will take, in consultation with the LSM advisor, four additional electives outside of the mathematical sciences. For each course the student will connect the course to the LSM by looking at the course content with a quantitative perspective. This will typically be accomplished with a paper within the course or a paper written in consultation with the LSM advisor.

- NASC 100 Intro to the Solar System
- NASC 101 Stars and the Universe
- NASC 303 Life in the Universe
- GLS 225 Politics and Urban Economy in the US (GO 252)
- GLS 248 Business and Politics of the News Media (GO 218)
- PS 325 Cyber Psychology
- HI 314 Hist of the World Economy
- HI 326 Age of Enlightenment
- HI 346 Econ History of the US
- HI 353 The American Economy of the 20th Century
- ID 433 Research Methods
- INT 320 Case Studies in Transforming Economies Of Europe
- NASC 140 Basic Physics
- NASC 309 The Science and Business of Biotechnology
- NASE 319 Human Inheritance: From Genes to Behavior
- NASE 339 The Atmosphere
- NASE 336 Water and the Environment
- NASE 341 Physics of Sports
- NASE 342 Light and Color
- NASE 344 Energy Alternatives
- NASE 345 How Things Work
- NASE 309 The Science and Business of Biotechnology

**Please note:** All LSMs must have at least 6 courses taken in A&S departments, and no more than 4 courses may be taken in any one discipline.

*Updated: November 15, 2012*