Courses Approved for Quantitative Reasoning with Data

The following courses are approved for Harvard College’s Quantitative Reasoning with Data (QRD) requirement.

QRD courses offered in a particular academic year can be found on my.harvard.

This list was most recently updated on 22 October 2021. For the most up-to-date version, please consult the QRD page on the Office of Undergraduate Education website.

For questions about the QRD requirement, e-mail qrd@fas.harvard.edu.

- ACOMP 209A  Data Science 1: Introduction to Data Science
- ACOMP 209B  Data Science 2: Advanced Topics in Data Science
- APMTH 10   Computing for Science and Engineering
- APMTH 22A  Solving and Optimizing
- APMTH 22B  Integrating and Approximating
- APMTH 50   Introduction to Applied Mathematics
- APMTH 101  Statistical Inference for Scientists and Engineers
- APMTH 120  Applied Linear Algebra and Big Data
- APMTH 121  Introduction to Optimization: Models and Methods
- APMTH 205  Advanced Scientific Computing: Numerical Methods
- APMTH 207  Advanced Scientific Computing: Stochastic Methods for Data Analysis, Inference and Optimization
- APMTH 231  Decision Theory
- APPHY 50A  Physics as a Foundation for Science and Engineering, Part I
- ASTRON 2  Celestial Navigation
- COMPSCI 1  Great Ideas in Computer Science
- COMPSCI 10  Elements of Data Science
- COMPSCI 50  Introduction to Computer Science
- COMPSCI 109A Data Science 1: Introduction to Data Science
- COMPSCI 109B Data Science 2: Advanced Topics in Data Science
- COMPSCI 124  Data Structures and Algorithms
- COMPSCI 134  Networks
- COMPSCI 181  Machine Learning
- COMPSCI 282BR Topics in Machine Learning: Interpretability and Explainability
- E-PSCI 100  The Missing MATLAB Course: A Practical Intro to Programming and Data Analysis
- E-PSCI 101  Global Warming Science 101
- E-PSCI 102  Data Analysis and Statistical Inference in the Earth and Environmental Sciences
- E-PSCI 131  Introduction to Physical Oceanography and Climate
• E-PSCI 139  Paleoclimate as Prologue
• ECON 20  Introduction to Data Analysis
• ECON 50  Using Big Data to Solve Economic and Social Problems
• ECON 50A  Using Big Data to Solve Economic and Social Problems with Laboratory Component
• ECON 1123  Introduction to Econometrics
• ECON 1126  Quantitative Methods in Economics
• ENG-SCI 53  Quantitative Physiology as a Basis for Bioengineering
• ENG-SCI 120  Introduction to the Mechanics of Solids
• ESE 101  Global Warming Science 101
• ESE 102  Data Analysis and Statistical Inference in the Earth and Environmental Sciences
• ESE 131  Introduction to Physical Oceanography and Climate
• GOV 50  Data
• GOV 51  Data Analysis and Politics
• GOV 52  Models
• GOV 61  Research Practice in Quantitative Methods
• GOV 1000  Quantitative Methods for Political Science I
• GOV 1010  Survey Research Methods
• GOV 1360  American Public Opinion
• GOV 2000  Introduction to Quantitative Methods I
• LIFESCI 50A  Integrated Science
• LING 105  Sounds of Language
• MATH MA  Introduction to Functions and Calculus I
• MATH QA  Quantitative Analysis for Economics and the Social Sciences I
• MATH 1A  Introduction to Calculus
• MATH 1B  Calculus, Series, and Differential Equations
• MATH 18A  Multivariable Calculus for Social Sciences
• MATH 18B/19B  Linear Algebra, Probability, and Statistics
• MATH 19A  Modeling and Differential Equations for the Life Sciences
• MATH 21A  Multivariable Calculus
• MATH 21B  Linear Algebra and Differential Equations
• MATH 22A  Vector Calculus and Linear Algebra I
• MATH 23A  Linear Algebra and Real Analysis I [note: in Fall 2020, two versions of MATH 23A are taught. Only one of these fulfills QRD. Further details are on the syllabus and my.harvard.]
• MATH 23C  Mathematics for Computation, Statistics, and Data Science
• MATH 156  Mathematical Foundations of Statistical Software
• MCB 111  Mathematics in Biology
• MCB 112 Biological Data Analysis
• MCB 198 Advanced Mathematical Techniques for Modern Biology
• PHYSCI 12A Mechanics and Statistical Physics from an Analytic, Numerical and Experimental Perspective
• PHYSCI 12B Electromagnetism and Statistical Physics from an Analytic, Numerical and Experimental Perspective
• PHYSICS 15A Introductory Mechanics and Relativity
• PHYSICS 15B Introductory Electromagnetism and Statistical Physics
• PHYSICS 15C Wave Phenomena
• PHYSICS 16 Mechanics and Special Relativity
• PHYSICS 145 Elementary Particle Physics
• PHYSICS 201 Data Analysis for Physicists
• PSY 1900 Introduction to Statistics for the Behavioral Sciences
• SCIENCE 5 An Introduction to Computation for Contemporary Science
• SOCIOL 156 Quantitative Methods in Sociology
• STAT 10 Elements of Data Science
• STAT 100 Introduction to Quantitative Methods for the Social Sciences and Humanities
• STAT 102 Introduction to Statistics for Life Sciences
• STAT 104 Introduction to Quantitative Methods for Economics
• STAT 109 Intro to Statistical Modeling
• STAT 111 Introduction to Statistical Inference
• STAT 121A Data Science 1: Introduction to Data Science
• STAT 121B Data Science 2: Advanced Topics in Data Science
• STAT 131 Time Series & Prediction
• STAT 139 Linear Models
• STAT 149 Generalized Linear Models
• STAT 151 Multilevel and Longitudinal Models
• STAT 160 Design and Analysis of Sample Surveys
• STAT 186 Causal Inference
• STAT 195 Statistical Machine Learning
• STAT 220 Bayesian Data Analysis