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.

- APCOMP 209A Data Science 1: Introduction to Data Science
- APCOMP 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 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
• 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