Collection Subject Statement: Statistics

Last reviewed: May 2025

Purpose
The Statistics collection in the University of Pittsburgh Library System (ULS) supports the academic programs and research needs of the students, faculty, and staff across the university. On the Pittsburgh campus the collection supports B.S. degrees in statistics, data science, and economic statistics as well as a combined five-year Bachelor's/Master's degree program and a Ph.D. in statistics. Minor concentrations in statistics are offered at Pittsburgh and Greensburg. In addition, statistics courses support a wide variety of majors in business, engineering, natural sciences, and social sciences, depending on the campus. Research is supported from the undergraduate level through the post-doctoral and faculty levels as appropriate at each campus. Relevant materials are located primarily in the Bevier Library, Hanley Library, Millstein Library, Owen Library, and Thomas Blvd. Library.

Audience
The collection primarily serves the needs of students, faculty, and researchers in statistics across the university. This includes students taking statistics courses required for or in support of degrees in other disciplines or those needing statistical skills for their research. The collection may be of use to those studying or working in actuarial science, accounting, biological sciences, chemistry, computational science, economics, education, engineering, environmental sciences, epidemiology, forensic medicine, GIS, information systems, management, psychology, political science, and certain areas of health sciences, as well as those in secondary education seeking certification to teach mathematics and those using the services of the Statistical Consulting Center.

Guiding Principles and Areas of Focus
The collection is intended to represent the broad range of study, application, and research in statistics. Specific areas of research interest include Bayesian analysis, causal inference, computational neuroscience, functional data analysis, genomics and genetics, high dimensional statistical inference, network data analysis, nonparametric estimation and inference, optimal treatment strategies and personalized medicine, statistical and machine learning methods, stochastic differential equations, survival analysis, and time series. Subject matter is guided by current teaching and research. The focus is on original writing and research in all formats, but on occasion reprints of classic works or collected works of major contributors to the field are acquired.

Since statistics courses may be taught in other departments (e.g., business, mathematics, and social sciences), especially at the regional campuses, this statement focuses on courses taught by Statistics departments.

Collections Scope

The Statistics collection offers a wide range of print and digital materials in the form of monographs, journals, selected book series and conference proceedings, and relevant electronic databases. Resources covering methodology, theory, and applications are acquired. Advanced and graduate level textbooks may be acquired, but most undergraduate and introductory textbooks will only be acquired on request in support of course reserves. Works of history and philosophy are generally reserved for History and Philosophy of Science but may be acquired selectively. A limited number of more general or biographical treatments may be acquired to support general interest reading. English is the primary language of the collection. Materials are acquired primarily from publishers based in North America and Europe, but individual works and journals reflect a broad international scope of authors and contributors. The emphasis is on adding current publications.

Library of Congress Classification

Typical classifications in which materials are acquired are listed below. Selective acquisitions may also be made in other categories based on need and interest. Statistical applications to specific disciplinary areas are often acquired for those disciplinary collections but may be acquired for Statistics.

Q (Science (General))

- Q175.32.C38 Causation
- Q180.55.S7 Research. Special Topics. Statistical methods
- Q325.5-325.787 Machine learning
- Q334-343 Artificial intelligence
- Q375 Uncertainty theory

QA (Mathematics)

- QA273-274 Probabilities
- QA276-280 Mathematical statistics
- QA319-329 Functional analysis

QH (Biology (General))

- QH323.5 Biometry. Biomathematics. Mathematical models
- QH324.2-324.27 Data processing. Bioinformatics

QP (Physiology)

- QP357.5 Neurophysiology and neuropsychology. Data processing

R (Medicine)

- R853.S7 Research. Other special topics. Statistical methods

Connections & Collaborations

The ULS collaborates with other institutions and consortia to acquire specialized materials that support research, teaching, and learning in statistics, particularly in areas where shared resources improve accessibility to rare or costly materials. Regionally and nationally, the ULS participates in several consortia for collection development (NERL?EAST?Hathi.Trust?CRL) and resource sharing (PALCI EZBorrow, OCLC Interlibrary Loan, RapidILL) that shape strategy for the Statistics collection. Within the university, the ULS

cooperates with the Health Sciences Library System to provide shared access to a variety of electronic books, journals, databases, videos, and specialized resources. Development of the collection takes into account the connection of Statistics with related disciplines, such as business, computational science, engineering, a variety of social sciences and natural sciences, health sciences, and mathematics.
The Department of Statistics is involved in interdisciplinary research with the Center for Neuroscience at the University of Pittsburgh, the Departments of Biostatistics and Epidemiology (School of Public Health), Psychiatry (School of Medicine), Children's and VA hospitals in Pittsburgh, University of Pittsburgh Cancer Institute, and Pitt's Learning Research and Development Center. It also works with the Pittsburgh Supercomputing Center.

Subject Experts

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Sources of Information

- https://www.upb.pitt.edu/academics/majors-minors
- https://www.greensburg.pitt.edu/academics
- https://www.johnstown.pitt.edu/academics/majors-programs
- https://www.stat.pitt.edu/
- https://www.stat.pitt.edu/resources/statistics-consulting-center