

# APPLIED STATISTICS BS

## PROGRAM OVERVIEW FOR EMPLOYERS

---

School of Mathematical Sciences website: <http://stat.rit.edu>

RIT's Applied Statistics program provides students with a strong foundation in mathematical and statistical principles, experience with real-world applications, and a solid background in advanced statistical software packages. Students in this program learn to effectively apply statistics to problems in data analysis, quality control, reliability analysis, experimental design, survey sampling, and statistical forecasting. In addition, students learn the important skills of designing an experiment, selecting and formulating appropriate statistical models, interpreting and analyzing data, and communicating the results in written and oral form. Students also select a **program concentration** in a related application field. Program concentrations include actuarial science, biology, biostatistics, chemistry, economics, finance, industrial engineering, marketing, operations research, psychology, and public policy. Graduates of RIT's Applied Statistics program find outstanding professional opportunities in business, industry, and government, and are accepted into the very best graduate programs.

### Degree(s) Awarded

Bachelor of Science in Applied Statistics

Bachelor of Science in Applied Statistics & Master of Science in Applied Statistics (dual degree program)

Bachelor of Science in Applied Statistics & Master of Science in Applied Mathematics (dual degree program)

### Enrollment

Approximately 25-35 students are enrolled.

### Cooperative Education Component

Students are eligible to participate in an optional co-op program upon completion of 2<sup>nd</sup> year courses. Participation is strongly encouraged.

### Salary Information (Median/Range)

Co-op:	\$16.50	\$11.00 - \$19.50
*BS:	\$49,759	\$35,000 - \$60,000

\*Statistics from the Nat'l Assn. Of Colleges & Employers (NACE) for 2007-2008 graduates

### Equipment & Facilities

Students have access to programming, statistical and simulation languages, graphics software and design tools on a variety of platforms. Symbolic computation and statistical laboratories are also available.

### Student Skills & Capabilities

- Data analysis, simple and multiple regression analysis, interpretation and presentation of data, problem solving, experimental design, survey sampling, quality control methodologies, statistical inference and statistical modeling.
- Computer Skills:
  - Software: SAS, SPSS, Mathematica, MATLAB, Maple, Minitab
  - Language: Java
  - Operating Systems: UNIX, VMS, Mac OS, Windows NT
  - Hardware: VAX, Macintosh, HP

# Applied Statistics

---

## Course Sequence BS degree

### First Year:

Project-Based Calculus I – III  
Discrete Math I  
Computer Science I (intro to object-oriented systems; problem solutions with Java)  
Statistical Computing with Excel and Minitab  
University-wide Electives  
Science Electives  
Liberal Arts

### Third Year:

Linear Algebra II  
Regression Analysis  
Design of Experiments  
Program Concentration Course\*\*  
Liberal Arts  
General Education Electives

### Second Year:

Multivariable Calculus  
Differential Equations  
Probability  
Applied Statistics  
Statistical Computing (SAS)  
Linear Algebra I  
Statistical Quality Control OR  
Research Sampling Techniques  
Technical Writing  
Liberal Arts

### Fourth and Fifth Years\*:

Nonparametric Statistics  
Mathematical Statistics I, II  
Statistics Seminar  
Program Concentration Courses\*\*  
University-wide Electives  
General Education Electives  
Liberal Arts

\* Program can typically be completed in four years.

### \*\* Specialization in program concentration:

Students may choose up to 16 credit hours from a program concentration. Some commonly selected program concentrations include:

- Actuarial Science
- Biology/Biostatistics
- Business/Finance
- Chemistry
- Economics
- Industrial Engineering
- Marketing
- Operations Research
- Public Policy
- Psychology

### Employers of Applied Statistics Co-op and Graduating Students:

Blue Cross/Blue Shield, CIGNA Healthcare, Cognigen Corp., Corning Tropol Corp., Harris Interactive Inc., Liberty Mutual Insurance Co., Mayo Clinic, Minitab Inc., Ortho-Clinical Diagnostics, Pfizer Inc., U.S. Bureau of Labor Statistics, U.S. Census Bureau, Xerox Corp.

### Contact Us:

We appreciate your interest in hiring RIT co-op, graduating students or alumni. We will make every effort to make your recruiting endeavor a success. Call our office and ask to speak with Kara Leonard, the program coordinator who works with the Applied Statistics program. For your convenience, you can access information and services through our web site at <http://www.rit.edu/recruit>.

### Kara Leonard

#### Program Coordinator

Office of Cooperative Education and Career Services  
RIT . Bausch & Lomb Center . 57 Lomb Memorial Drive . Rochester NY 14623-5603  
585.475.7413  
kmlce@rit.edu