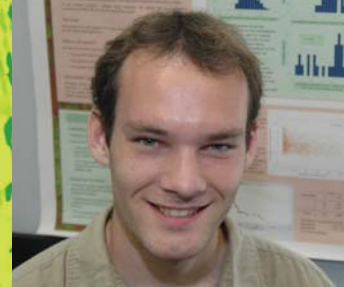


STATISTICS

An Interdisciplinary Nature



MAJOR

Mathematics, Statistics and Computer Science

Concentration

Statistics

www.stolaf.edu/depts/statistics



“The energy and breadth of this statistics program is unmatched among liberal arts colleges.”

—Paul Roback '89

Assistant Professor of Statistics

When Julie Legler came to St. Olaf in 2001 after eight years as a statistician for the National Institutes of Health (NIH), she brought with her a first-hand understanding of how joint efforts feed scientific progress. During NIH research projects, she explains, “we would have several different experts at the table: nutritionists, statisticians, oncologists and epidemiologists.” Now an associate professor of statistics at St. Olaf, Legler exposes undergraduates to the same interdisciplinary work model. As director of the college’s statistics program, she guides students through work that contributes directly to research conducted by other departments. “To me, it’s like being in a candy shop,” she says. “I love to learn about all these different areas.”

Paul Roback '89, an assistant professor of statistics, also brings teaching and industry experience to the St. Olaf statistics program. Roback spent three years as a clinical statistician at Eli Lilly and Co. and created a new minor in applied statistics at Connecticut College before returning to St. Olaf in 2003.

“The energy and breadth of this statistics program is unmatched among liberal arts colleges,” he says. “Students can concentrate in statistics while majoring in mathematics, biology, economics, psychology or even dance. Successful statisticians or users of statistics must have subject-area knowledge as well as excellent communication and teamwork skills. These elements are all developed throughout a student’s St. Olaf experience.”

After developing a solid grasp of the subject matter under examination, statisticians do much more than simply answer questions posed to them. Often, they come up with new ways for statistics to provide unanticipated insights.

St. Olaf graduates have gone on to pursue advanced degrees in statistics at Harvard, Purdue, Oxford, Columbia University and the University of Minnesota — and to careers at the Federal Reserve in Washington, D.C., and Mayo Clinic in Rochester, Minn.

“Statisticians have to be in the trenches with the other researchers,” Legler says, “so they can get at what you can measure and what you can’t measure.” These measurements tell stories. “Like writing and English, statistics is another form of communication,” she says. “It’s a descriptive tool.”

That tool increasingly is in demand. Advancements in computing technology have made mass data collection and analysis more accessible than ever. Statistics work has become indispensable in many circles — from universities to pharmaceutical companies to government institutions. Fortunately, St. Olaf is well situated to respond to this burgeoning interest. “There are very few statisticians at liberal arts schools,” says Legler. “Having a well-established statistics program like we have at St. Olaf is pretty unusual.” ■

Cool Class

Global Health and Biostatistics in Geneva

Students work with researchers from the World Health Organization in Geneva, Switzerland, to learn about the global burden of disease and get a firsthand feel for how statisticians and epidemiologists collaborate to find solutions.



▶ “The Center for Interdisciplinary Research has shown me the importance and relevance of statistical analysis to any field,” says Janine Wetzel '05 (pictured, at left, with Professor Julie Legler). “In addition to giving me a strong respect for professional statisticians, working with the CIR has helped me develop greater ability to interpret and analyze data, a valuable skill in any career.”

STATS SERVICE CENTER

The St. Olaf statistics program has a new vehicle for reaching out to the entire campus: the Center for Interdisciplinary Research (CIR), supported by a \$1.3 million, five-year grant from the National Science Foundation. Students apply for CIR undergraduate fellowships, commit time every week to research-related activities and apply their quantitative skills toward cutting-edge research in a range of fields.

“The Center for Interdisciplinary Research provides an infrastructure for St. Olaf students to connect statistics with research in other disciplinary areas,” says CIR Director Julie Legler. “It also increases awareness of the necessity for statistical research and specialists.”