Statistics

Nature of Program

A minor in statistics is available to all University students with the option of either an applied statistics track or a mathematical statistics track. Students interested in a major related to statistics should consider the interdepartmental bachelor of sciences degree in industrial mathematics and statistics.

FACULTY

CHAIR

• Michael Mays - Ph.D. (Penn State University)

PROFESSORS

• Erdogan Gunel - Ph.D. (SUNY-Buffalo)
  Bayesian inference, Biostatistics, Categorical data analysis
• E. James Harner - Ph.D. (Cornell U.)
  Bioinformatics, Statistical computing, Statistical modeling, Statistical learning
• Robert Mnatsakanov - Ph.D. (Moscow Stat Institute of Electronics and Mathematics)
  Nonparametric statistics, Statistical Inverse Problems, Mixture Models, Change-set Problems

ASSOCIATE PROFESSORS

• Mark V. Culp - Ph.D. (University of Michigan)
  Statistical Machine Learning, Computational Statistics, Semi-supervised and Multi-view Learning
• Gerald R. Hobbs Jr. - Ph.D. (Kansas St. U.)
  Biostatistics, Nonparametric statistics, Regression analysis
• Huey Miin Lee - Ph.D. (Johns Hopkins U.)
  Bioinformatics, Operations research, Statistical education
• Kenneth J. Ryan - Ph.D. (Iowa State University)
  Experimental Design, Statistical Machine Learning, Biolmetrics

ASSISTANT PROFESSORS

• JeanMarie Hendrickson - Ph.D. (University of South Carolina)
  Bioinformatics, Operations research, Statistical education
• Yanqing Hu - Ph.D. (University of Virginia)
  Design Clinical Trials, Adaptive Designs, Nonparametric Statistics, Bioinformatics
• Erin Leatherman - Ph.D. (Ohio State)
  Prediction and Design for Computer and Physical Experiments

TEACHING INSTRUCTOR

• Anthony Billings - M.S. (WVU); A.B.D. (CMU)
  Statistical computing, Statistical modeling, Robust estimation, Nonlinear dynamic systems, Statistical education

PROFESSOR EMERITUS

• William V. Thayne - Ph.D. (University of Illinois)
  Experimental Design, Statistical Genetics, Regression Analysis
• Edwin C. Townsend - Ph.D. (Cornell University)
  Experimental Design, REgression Analysis

ASSOCIATE PROFESSOR EMERITUS

• Daniel M. Chilko - M.S. (Rutgers University)
  Statistical Computing, Computer Graphics

STATISTICS MINOR

MINOR CODE - U034

Students may choose from two minor tracks. A grade of C or higher in each course counted toward the minor is required.
### MATHEMATICAL STATISTICS TRACK:

**Core Courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT 215</td>
<td>Introduction to Probability and Statistics</td>
<td>3</td>
</tr>
<tr>
<td>STAT 461</td>
<td>Theory of Probability</td>
<td>3</td>
</tr>
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**Upper-Division Electives**

Choose 3 of the following:

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>STAT 217</td>
<td>Industrial Statistics</td>
</tr>
<tr>
<td>STAT 312</td>
<td>Intermediate Statistical Methods</td>
</tr>
<tr>
<td>STAT 313</td>
<td>Introductory Design and Analysis</td>
</tr>
<tr>
<td>STAT 316</td>
<td>Forensic Statistics</td>
</tr>
<tr>
<td>STAT 331</td>
<td>Sampling Methods</td>
</tr>
<tr>
<td>STAT 421</td>
<td>Statistical Analysis System (SAS)</td>
</tr>
<tr>
<td>STAT 445</td>
<td>Data Analysis</td>
</tr>
<tr>
<td>STAT 462</td>
<td>Theory of Statistics</td>
</tr>
</tbody>
</table>

**Total Hours**

15

### APPLIED STATISTICS TRACK:

**Core Course:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT 211</td>
<td>Elementary Statistical Inference</td>
</tr>
<tr>
<td>or STAT 215</td>
<td>Introduction to Probability and Statistics</td>
</tr>
</tbody>
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**Upper-Division Electives:**

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