# Statistics (MR): Statistical Genetics Concentration

## Degree Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
<th>Counts towards</th>
</tr>
</thead>
<tbody>
<tr>
<td>ST 501</td>
<td>Fundamentals of Statistical Inference I</td>
<td>21</td>
<td>Core Courses</td>
</tr>
<tr>
<td>ST 502</td>
<td>Fundamentals of Statistical Inference II</td>
<td>21</td>
<td>Core Courses</td>
</tr>
<tr>
<td>ST 503</td>
<td>Fundamentals of Linear Models and Regression</td>
<td>21</td>
<td>Core Courses</td>
</tr>
<tr>
<td>ST 542</td>
<td>Statistical Practice</td>
<td>21</td>
<td>Core Courses</td>
</tr>
<tr>
<td>ST 555</td>
<td>Statistical Programming I</td>
<td>21</td>
<td>Core Courses</td>
</tr>
<tr>
<td>ST 517 &amp; ST 518</td>
<td>Applied Statistical Methods I and Applied Statistical Methods II</td>
<td>21</td>
<td>Core Courses</td>
</tr>
</tbody>
</table>

## Concentration Requirements

### Required Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
<th>Counts towards</th>
</tr>
</thead>
<tbody>
<tr>
<td>ST 520</td>
<td>Statistical Principles of Clinical Trials</td>
<td>9</td>
<td>Required Courses</td>
</tr>
<tr>
<td>ST 540</td>
<td>Applied Bayesian Analysis</td>
<td>9</td>
<td>Required Courses</td>
</tr>
<tr>
<td>ST 711</td>
<td>Design Of Experiments</td>
<td>9</td>
<td>Required Courses</td>
</tr>
<tr>
<td>ST 744</td>
<td>Categorical Data Analysis</td>
<td>9</td>
<td>Required Courses</td>
</tr>
<tr>
<td>ST 745</td>
<td>Analysis of Survival Data</td>
<td>9</td>
<td>Required Courses</td>
</tr>
</tbody>
</table>

Select one of the following:

- ST 520: Statistical Principles of Clinical Trials
- ST 540: Applied Bayesian Analysis
- ST 711: Design Of Experiments
- ST 744: Categorical Data Analysis
- ST 745: Analysis of Survival Data

Select six credit hours of the following:

- ST 721: Genetic Data Analysis
- ST 590: Special Topics (Introduction to Bioinformatics)
- ST 590: Special Topics (Bioinformatics II)
- GN 703: Population and Quantitative Genetics

## Total Hours

**30**

## Faculty

### Full Professors

- Dennis D. Boos
- Marie Davidian
- Sujit K. Ghosh
- Subhashis Ghoshal
- Kevin Gross
- Marcia Lynn Gumpertz
- Jacqueline M. Hughes-Oliver
- Eric Benjamin Laber
- Wenbin Lu
- Ryan G. Martin
- Spencer V. Muse
- Jason A. Osborne
- Brian J. Reich
- Rui Song
- Ana-Maria Staicu
- Leonard A. Stefanski
- Jeffrey L. Thorne
- Jung-Ying Tzeng
- Alyson Gabbard Wilson
- Fred Andrew Wright
- Daowen Zhang

### Associate Professors

- Xinge Jessie Jeng
- Arnab Maity
- Donald Eugene Kemp Martin
- Thomas W. Reiland
- Charles Eugene Smith
Assistant Professors
Eric C. Chi
Emily Hector
Srijan Sengupta
Jonathan W. Stallrich
Minh Tang
Jonathan Paul Williams
Luo Xiao
Shu Yang

Practice/Research/Teaching Professors
Jonathan W. Duggins
Emily H. Griffith
Herle M. McGowan
Logan J. Opperman
Justin B. Post
Paul R. Savariappan
Shuting Wang

Adjunct Faculty
Howard D. Bondell
Soumendra Nath Lahiri
Alison Anne Motsinger-Reif
Eric A. Stone
Yichao Wu

Emeritus Faculty
William Reid Atchley
Peter Bloomfield
Cavell Brownie
David Alan Dickey
Thomas Michael Gerig
Harvey J. Gold
Thomas Johnson
John F. Monahan
Kenneth Hugh Pollock
Charles P. Quesenberry
John Oren Rawlings
Don L. Ridgeway
Moon Won Suh
William H. Swallow
Anastasios A. Tsiatis
John L. Wasik