# 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>6</td>
<td>Core Courses</td>
</tr>
<tr>
<td>ST 502</td>
<td>Fundamentals of Statistical Inference II</td>
<td>6</td>
<td>Core Courses</td>
</tr>
<tr>
<td>ST 503</td>
<td>Fundamentals of Linear Models and Regression</td>
<td>6</td>
<td>Core Courses</td>
</tr>
<tr>
<td>ST 542</td>
<td>Statistical Practice</td>
<td>3</td>
<td>Core Courses</td>
</tr>
<tr>
<td>ST 555</td>
<td>Statistical Programming I</td>
<td>3</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>6</td>
<td>Core Courses</td>
</tr>
</tbody>
</table>

## Concentration Requirements

### Required Courses

**Select one of the following:**

<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>3</td>
<td>Core Courses</td>
</tr>
<tr>
<td>ST 540</td>
<td>Applied Bayesian Analysis</td>
<td>3</td>
<td>Core Courses</td>
</tr>
<tr>
<td>ST 711</td>
<td>Design Of Experiments</td>
<td>3</td>
<td>Core Courses</td>
</tr>
<tr>
<td>ST 744</td>
<td>Categorical Data Analysis</td>
<td>3</td>
<td>Core Courses</td>
</tr>
<tr>
<td>ST 745</td>
<td>Analysis of Survival Data</td>
<td>3</td>
<td>Core Courses</td>
</tr>
</tbody>
</table>

**Select six credit hours of the following:**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
<th>Counts towards</th>
</tr>
</thead>
<tbody>
<tr>
<td>ST 721</td>
<td>Genetic Data Analysis</td>
<td>3</td>
<td>Core Courses</td>
</tr>
<tr>
<td>ST 590</td>
<td>Special Topics (Introduction to Bioinformatics)</td>
<td>3</td>
<td>Core Courses</td>
</tr>
<tr>
<td>ST 590</td>
<td>Special Topics (Bioinformatics II)</td>
<td>3</td>
<td>Core Courses</td>
</tr>
<tr>
<td>GN 703</td>
<td>Population and Quantitative Genetics</td>
<td>3</td>
<td>Core Courses</td>
</tr>
</tbody>
</table>

### Total Hours: 30

## Faculty

- 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
- Erin Mary Schliep
- Kimberly Sellers
- Rui Song
- Ana-Maria Staicu
- Leonard A. Stefanski
- Jeffrey L. Thorne
- Jung-Ying Tzeng
- Alyson Gabbard Wilson
- Fred Andrew Wright
- Daowen Zhang
- Xinge Jessie Jeng
- Arnab Maity
- Donald Eugene Kemp Martin
- Thomas W. Reiland
- Charles Eugene Smith
- Eric C. Chi
- Emily Hector
Karl Timothy LeRoy Pazdernik
Srijan Sengupta
Jonathan W. Stallrich
Minh Tang
Jonathan Paul Williams
Luo Xiao
Shu Yang
Jonathan W. Duggins
Emily H. Griffith
Herle M. McGowan
Logan J. Opperman
Justin B. Post
Paul R. Savariappan
Shuting Wang
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
Howard D. Bondell
Soumendra Nath Lahiri
Alison Anne Motsinger-Reif
Eric A. Stone
Yichao Wu

Assistant Professors
Annie Booth
Nathaniel Josephs