Biomathematics (PhD)

Degree Requirements

Students may choose from the degree tracks below to complete coursework within a focus area.

Degrees earned will be distributed as: "Doctor of Philosophy in Biomathematics" without track specifications.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
<th>Counts towards</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMA 771</td>
<td>Biomathematics I</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>BMA 772</td>
<td>Biomathematics II</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BMA 773</td>
<td>Stochastic Modeling</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BMA 774</td>
<td>Partial Differential Equation Modeling in Biology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BMA 801</td>
<td>Seminar</td>
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**Required Courses**

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<tr>
<th>Code</th>
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<th>Hours</th>
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**Biological Sciences Courses**

<table>
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<tr>
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**Statistics Courses**

<table>
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<th>Counts towards</th>
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<th>Counts towards</th>
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**Mathematical Science Courses**

<table>
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<tr>
<th>Code</th>
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**Focus Area Track**

<table>
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<th>Code</th>
<th>Title</th>
<th>Hours</th>
<th>Counts towards</th>
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Total Hours: 51-54

1. BMA 801 Seminar needs to be repeated three times to meet the three credit hour requirement.
2. Must represent at least two different perspectives.
3. Must include at least one 700 level course.

**Statistic Course Options**

**Option 1**

<table>
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<thead>
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<th>Hours</th>
<th>Counts towards</th>
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Total Hours: 6

**Option 2**

<table>
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<th>Hours</th>
<th>Counts towards</th>
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</table>

Total Hours: 3

**Focus Track Areas**

**Biological Sciences**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
<th>Counts towards</th>
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</thead>
</table>

Select five courses, minimum of one form each of the following:

- Cellular and Molecular Biology
- Genetics and Development
- Biophysical and Biomedical Sciences and Physiology
- Ecology and Evolution

Total Hours: 15

**Mathematical Methods**

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<tr>
<th>Code</th>
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<th>Hours</th>
<th>Counts towards</th>
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</table>

Select five courses in the following or co-major:

- Mathematics
- Statistics
- Operations Research
- Computer Studies

Total Hours: 15

**Faculty**

**Full Professors**

Kevin Gross
Mansoor Abbas Haider
Carol K. Hall
Jason M. Haugh
George R. Haugh
Alun L. Lloyd
Sharon R. Lubkin
Spencer V. Muse
Mette Olufsen
Brian J. Reich
Seth M. Sullivant
Jeffrey L. Thorne
Hien Trong Tran
Zhaobang Zeng

**Associate Professors**
Randall Brian Langerhans
Cristina Lanzas
Charles Eugene Smith
Rosangela Sozzani

**Assistant Professors**
Belinda Sena Akpa
Zixuan Cang
Jie Cao
Kevin Bryant Flores
David Alan Rasmussen

**Emeritus Faculty**
William Reid Atchley
John William Bishir
Marlene L. Hauck
Gail G. McRae
Kenneth Hugh Pollock
Jim E. Riviere
Henry E. Schaffer
James Francis Selgrade
Ronald Edwin Stinner

**Adjunct Faculty**
John Edward Banks
Georgiy Bobashev
Brian Ernest Carlson
James W. Gilliam
Nicholas M. Haddad
Thomas D. Husmeier
Dustin Kapraun