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>
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<tbody>
<tr>
<td>BMA 771</td>
<td>Biomathematics I</td>
<td>3</td>
<td></td>
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<tr>
<td>BMA 772</td>
<td>Biomathematics II</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BMA 773</td>
<td>Stochastic Modeling</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BMA 774</td>
<td>Partial Differential Equation Modeling in Biology</td>
<td>3</td>
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<tr>
<td>BMA 801</td>
<td>Seminar</td>
<td>1</td>
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Biological Sciences Courses

"Biological Science Courses" will be approved in conjunction with the academic committee.

Statistics Courses

Required "Statistics Courses" will be approved in conjunction with the academic committee – see "Statistic Course Options" listed below.

Mathematical Science Courses

"Mathematical Science Courses" will be approved in conjunction with the academic committee.

Focus Area Track

See "Focus Area Tracks".

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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<th>Hours</th>
<th>Counts towards</th>
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<tr>
<td>ST 511</td>
<td>Statistical Methods For Researchers I</td>
<td>3</td>
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<tr>
<td>ST 512</td>
<td>Statistical Methods For Researchers II</td>
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Total Hours

6

Option 2

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<tbody>
<tr>
<td>ST 512</td>
<td>Statistical Methods For Researchers II (R)</td>
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</table>

Total Hours

3

Focus Track Areas

Biological Sciences

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

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. Hess
- 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