# Forest Biomaterials (PhD)

## Degree Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
<th>Counts towards</th>
</tr>
</thead>
<tbody>
<tr>
<td>FB 701</td>
<td>PhD Research Methods in Forest Biomaterials</td>
<td>12</td>
<td>Required Courses</td>
</tr>
<tr>
<td>FB 801</td>
<td>Doctoral Seminar</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Select three of the following courses:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>FB 516</td>
<td>Forest Products Colloids &amp; Surfaces</td>
<td></td>
</tr>
<tr>
<td>FB 565</td>
<td>Forest Biomaterials Physics</td>
<td></td>
</tr>
<tr>
<td>FB 723</td>
<td>Forest Biomaterials Chemistry</td>
<td></td>
</tr>
<tr>
<td>FB 760</td>
<td>Engineering Unit Operations for Biomass Conversion</td>
<td></td>
</tr>
</tbody>
</table>

### Elective Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>FB 510</td>
<td>Strategic Business Processes for the Forest Products Industry</td>
<td>15</td>
</tr>
<tr>
<td>FB 522</td>
<td>Chemical Principles for the Papermaking Process Engineer</td>
<td></td>
</tr>
<tr>
<td>FB 527</td>
<td>Wet-End and Colloidal Chemistry</td>
<td></td>
</tr>
<tr>
<td>FB 576</td>
<td>Environmental Life Cycle Analysis</td>
<td></td>
</tr>
<tr>
<td>FB 580</td>
<td>The Sustainable Bioeconomy</td>
<td></td>
</tr>
</tbody>
</table>

### Additional Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

"Additional Courses" are approved in conjunction with the academic committee to meet 72 total hours

### Total Hours

82

## Faculty

### Full Professors

Dimitris S. Argyropoulos

Marko Hakovirta
Martin A. Hubbe
Hasan Jameel
Stephen S. Kelley
Melissa Pasquinelli
David C. Tilotta
Richard A. Venditti

### Associate Professors

Lucian A. Lucia
Philip H. Mitchell
Lokendra Pal
Sunkyu Park
Joel Justin Pawlak
Perry N. Peralta
Ilona Maria Peszlen
Leah C. Rathbun
Daniel Erique Saloni

### Assistant Professors

Ronalds Wilfredo Gonzalez
Paul Frederik Laleicke
Nathalie Marie Lavoine
Yuan Yao

### Practice/Research/Teaching Professors

Medwick V. Byrd
Elizabeth Kierepka
Rico Ruffino

### Emeritus Faculty

Hou-Min Chang
Ellis B. Cowling
Earl L. Deal
Eric L. Ellwood
Edward T. Funkhouser
Irving S. Goldstein
John A. Heitmann Jr.
Larry G. Jahn
Magret Joyce
Adrianna G. Kirkman
Michael J. Kocurek
Ronald G. Pearson
Richard J. Thomas
Elisabeth A. Wheeler

Adjunct Faculty
Sujit Banerjee
Jesse Daystar
Richard Phillips