# 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>
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<td></td>
<td>Select three of the following courses:</td>
<td></td>
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<tr>
<td>FB 516</td>
<td>Forest Products Colloids &amp; Surfaces</td>
<td></td>
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<tr>
<td>FB 565</td>
<td>Forest Biomaterials Physics</td>
<td></td>
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<tr>
<td>FB 723</td>
<td>Forest Biomaterials Chemistry</td>
<td></td>
<td></td>
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<tr>
<td>FB 760</td>
<td>Engineering Unit Operations for Biomass Conversion</td>
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**Elective Courses**

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

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

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

**Total Hours**  
82

## Faculty

Dimitris S. Argyropoulos  
Marko Hakovirta  

Martin A. Hubbe  
Hasan Jameel  
Stephen S. Kelley  
Melissa Pasquinelli  
David C. Tilotta  
Richard A. Venditti  
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  
Ronalds Wilfredo Gonzalez  
Paul Frederik Lateicke  
Nathalie Marie Lavoine  
Yuan Yao  
Medwick V. Byrd  
Elizabeth Kierepka  
Melissa Anne Pasquinelli  
Rico Ruffino  
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
Sujit Banerjee
Jesse Daystar
Richard Phillips