Forest Biomaterials (PhD)

Degree Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>FB 701</td>
<td>PhD Research Methods in Forest Biomaterials</td>
<td>12</td>
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<tr>
<td>FB 801</td>
<td>Doctoral Seminar</td>
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<tr>
<td>FB 516</td>
<td>Forest Products Colloids &amp; Surfaces</td>
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<tr>
<td>FB 565</td>
<td>Forest Biomaterials Physics</td>
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<td>FB 723</td>
<td>Forest Biomaterials Chemistry</td>
<td></td>
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<tr>
<td>FB 760</td>
<td>Engineering Unit Operations for Biomass Conversion</td>
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**Required Courses**

Select three of the following courses:

- FB 516: Forest Products Colloids & Surfaces
- FB 565: Forest Biomaterials Physics
- FB 723: Forest Biomaterials Chemistry
- FB 760: Engineering Unit Operations for Biomass Conversion

**Elective Courses**

- FB 510: Strategic Business Processes for the Forest Products Industry
- FB 522: Chemical Principles for the Papermaking Process Engineer
- FB 527: Wet-End and Colloidal Chemistry
- FB 576: Environmental Life Cycle Analysis
- FB 580: The Sustainable Bioeconomy

**Additional Courses**

"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

**Assistant Professors**

- Ronalds Wilfredo Gonzalez
- Paul Frederik Laleicke
- Nathalie Marie Lavoine
- Leah C. Rathbun
- 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