

Sustainable Biomaterials - Process and Product Design

https://ag.purdue.edu/oap/Pages/major.aspx

120 credits required for graduation

Credits	Course number	Course Title
Departmental/Program Major Courses (107 credits)		
Required Major Courses (29 credits)		
3	FNR 10300	UCC STS Selective (satisfies Science, Technology & Society Selective for core)
3	FNR 22310	Introduction to Environmental Policy
3	FNR 23000	World's Forests & Society
3	FNR 30110	Sustainable Forest Products Manufacturing
2	FNR 30200	Global Sustainability Issues
3	FNR 31100	Wood Structure, Identification and Properties
3	FNR 41800	Properties of Wood Related to Manufacturing
3	FNR 41900	Furniture & Cabinet Design & Manufacture
3	FNR 42500	Secondary Wood Products Manufacturing
3	FNR 48410	Sustainable Furniture Design for CNC Manufacturing
Other Departmental /Program Course Requirements (83 credits) (See Advising Resources)		
0.5	AGR 10100	Introduction to the College of Agriculture and Purdue University
0.5	AGR 11900	Introduction to FNR Academic Programs
4	BIOL 11000	Fundamentals of Biology I
4	BTNY 11000	Introduction to Plant Science
3	CHM 11100	General Chemistry (satisfies Science #1 for core)
3	CHM 11200	General Chemistry (satisfies Science #2 for core)
3	CGT 11000	Technical Graphics Communications
3	EEE 35000	Engineering Environmental Sustainability
3	IT 21400	Introduction to Lean Manufacturing
3	IT 34200	Introduction to Statistical Quality
3	IT 44200	Production Planning
3	IT 45000	Production Cost Analysis
3	IT 48300	Facility Design for Lean Manufacturing
3	MA 16010	Applied Calculus (satisfies Quantitative Reasoning for core)
3	MET 14300	Materials and Processes I
3	MET 24500	Manufacturing Systems
3	STAT 30100	Elementary Statistical Methods
4	-----	Physics Selective
6	-----	Sustainability Selectives
3	-----	Economics Selective (satisfies Human Culture Behavioral/Social Science for core)
3	-----	Ethics Selective (satisfies Human Cultures Humanities for core)
3	-----	Humanities or Social Science Selective
3	-----	Humanities or Social Science Selective
3	-----	Humanities or Social Science Selective (30000+ level)
4	ENGL 10600	First-Year Composition (satisfies Written Communication for core) (satisfies Information Literacy for core)
3	COM 11400	Fundamentals of Speech Communication or Science Writing and Presentation (satisfies Oral Communication for core)
3	COM 21700	Oral Communication for core)
3	ENGL 42100	Technical Writing
Electives (8 credits)		
8	-----	Elective

University Core Requirements:

Human Cultures Humanities: _____	Science, Technology, and Society: _____
Human Cultures Behavioral/Social Science: _____	Written Communication: _____
Information Literacy: _____	Oral Communication: _____
Science #1: _____	Quantitative Reasoning: _____

120 semester credits required for Bachelor of Science degree.
2.0 GPA required for Bachelor of Science degree.

College of Agriculture & University Level Requirements:

2.0 GPA required for Bachelor of Science degree.

32 Upper division credits taken from Purdue

9 credits International Understanding: _____

3 credits Multicultural Awareness: _____

9 credits of Hum and/or Social Sciences outside the College of Agriculture: _____

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Credits	Course number	Course Title	Prerequisites	Credits	Course number	Course Title	Prerequisites
Fall 1st Year				Spring 1st Year			
0.5	AGR 10100	Introduction to the College of Agriculture and Purdue University		4	BTNY 11000	Introduction to Plant Science	
0.5	AGR 11900	Introduction to FNR Academic Programs		3	CHM 11200	General Chemistry II	CHM 11100
4	BIOL 11000	Fundamentals of Biology I		3	COM 11400 or COM 21700	Fundamentals of Speech or Science Writing and Presentation	
3	CHM 11100	General Chemistry		3	FNR 10300	Introduction to Environmental Conservation	
4	ENGL 10600	First-Year Composition		3	-----	Ethics Selective	
3	MA 16010	Applied Calculus I	ALEKS 75+				
15				16			

Fall 2nd Year				Spring 2nd Year			
3	FNR 22310 or POL 22300	Introduction to Environmental Policy		3	CGT 11000	Technical Graphics Communications	
3	MET 14300	Materials and Processes I		3	FNR 30110	Sustainable Forest Products Manufacturing	
3	STAT 30100	Elementary Statistical Methods		3	IT 21400	Introduction to Lean Manufacturing	
3	-----	Economics Selective		4	-----	Physics Selective	
3	-----	Sustainability Selectives		3	-----	Elective	
12				16			

Fall 3rd Year				Spring 3rd Year			
3	FNR 23000	World's Forest & Society		3	EEE 35000	Engineering Environmental Sustainability	
3	FNR 41800	Properties of Wood Related to Manufacturing		3	FNR 31100	Wood structure, Identification & Properties	MET 14300, CGT 11000
3	ENGL 42100	Technical Writing	ENGL 10600	3	MET 24500	Manufacturing systems	MET 14300, CGT 11000
3	IT 34200	Introduction to Statistical Quality	MA 22300	3	-----	Humanities or Social Science Selective	
3	-----	Humanities or Social Science Selective		3	-----	Humanities or Social Science Selective (30000+ level)	
15				15			

Fall 4th Year				Spring 4th Year			
3	FNR 42500	Secondary Wood Products Manufacturing	FNR 30100, FNR 41800	2	FNR 30200	Global Sustainability Issues	
3	FNR 48410	Sustainable Furniture Design for CNC Manufacturing	FNR 30100, FNR 41800	3	FNR 41900	Furniture Product Development and Strenght Design	
3	IT 44200	Production Planning	MET 24500	3	IT 48300	Facility Design for Lean Manufacturing	IT 44200, MET 24500
3	IT 45000	Production Cost Analysis	MA 22300	3	-----	Sustainability Selective	
3	-----	Elective		2	-----	Elective	
15				13			

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The highlighted course is considered critical; timely progress toward the degree depends upon steady progress through each course in the plan of study, but this course, in particular, should be completed by the semester indicated.

Consultation with an advisor may result in an altered plan customized for an individual student.