RENEWABLE BIOPRODUCTS, MINOR

Requirements for a minor may be completed at any campus location offering the specified courses for the minor. Students may not change from a campus that offers their major to a campus that does not offer their major for the purpose of completing a minor.

Program Description

The Renewable Bioproducts minor informs students about renewable sources of carbon to produce industrially relevant bioproducts. Students will learn about how agricultural, forestry, and municipal solid waste residues could be used to create new bioproducts, including polymers. Students will learn about the intersection of principles of biologicallybased materials, science, and engineering. In addition, students will learn about systems-level analysis of production and conversion of agricultural and forest materials into new bioproducts.

Program Requirements

Requirement	Credits
Requirements for the Minor	18

Requirements for the Minor

A grade of C or better is required for all courses in the minor, as specified by Senate Policy 59-10 (https://senate.psu.edu/students/policiesand-rules-for-undergraduate-students/59-00-minors-and-certificates/). In addition, at least six credits of the minor must be unique from the prescribed courses required by a student's major(s).

Code		Title	Credits
Prescri	bed Course	es	
Prescri	bed Courses	s: Require a grade of C or better	
ABSM	300	Introduction to Agricultural and Biorenewable Products	3
ABSM	350	Introduction to Life Cycle Assessment	3
ABSM	411	Bioproducts Science and Technology	3
Additio	nal Course	S	
Additio	nal Courses	: Require a grade of C or better	
Select	9 credits fr	om the following:	9
ABS	M 402	Foundations of Sustainable Business	
ABS	M 417	Processing and Manufacturing Systems for Bioproducts	
ABS	M 423	Deterioration and Protection of Bioproducts	
BE 4	.04	Engineering Properties of Food and Biological Materials	
BE 4	64	Bioenergy Systems Engineering	
BE 4	65	Food and Biological Process Engineering	
BE 4	68	Microbiological Engineering	
BME	444	Surfaces and the Biological Response to Materia	als
BME	446	Polymers in Biomedical Engineering	
CHE	442	Polymer Processing Technology	
CHE	443	Introduction to Polymer Science	
CHE	M 480	Chemistry and Properties of Polymers	
EGE	E 439	Alternative Fuels from Biomass Sources	

MATSE 441	Polymeric Materials I
MATSE 445	Thermodynamics, Microstructure, and Characterization of Polymers
MATSE 446	Mechanical and Electrical Properties of Polymers and Composities
MATSE 447	Rheology and Processing of Polymers

Contact

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