

**Sustainable Materials Science and Technology Option
Coursework Requirements - 2007-2009 Catalog
40 Total Credits**

Required Courses

40 credits

CHEM 231 and 231L	Organic Chemistry and Lab	4 cr
ECON 101	Principles of Microeconomics	3 cr
FOR 280	Wood Anatomy and Properties	4 cr
FOR 480*	Wood Anatomy and Fiber Analysis	3 cr
FOR 481*	Chemical Conversion of Wood	3 cr
FOR 483*	Wood Deterioration and Preservation	3 cr
FOR 485*	Lignocellulosic Composite Materials	3 cr
FOR 486*	Moisture Interactions of Lignocellulosic Materials	3 cr
FOR 487*	Physical Properties of Wood	4 cr
MATH 151	Calculus for Business and Social Science	3 cr
MKT 340	Principles of Marketing	3 cr
STAT 401	Statistical Methods for Research Workers	4 cr
NREM 104	Practical experience requirement	R

* Courses offered only in alternate years:

- FOR 480 offered Fall 2007
- FOR 481 offered Fall 2008
- FOR 483 offered Fall 2007
- FOR 485 offered Fall 2008
- FOR 486 offered Spring 2008
- FOR 487 offered Spring 2008

For subsequent offerings, see the ISU "Schedule of Classes" web page.

Suggested Sequence of Courses
Sustainable Materials Science and Technology Option*

Freshman Year

Biol 211	Principles of Biology	3	Agron 154	Fund. of Soil Science	3
Biol 211L	Prin. of Biology Lab.	1	Chem 163	General Chemistry	4
NREM 110	Orientation in NREM	R	Chem 163L	General Chemistry Lab	1
Engl 150	Critical Thinking & Comm	3	Stat 101	Intro to Statistics	4
Math 140	College Algebra**	3	Lib 160	Library Instruction	0.5
NREM 120	Intro. Renew Resources	3	Math 150	Math for Social Science	<u>3</u>
Soc130/134	Sociology Elective	<u>3</u>			<u>15.5</u>
		16			

Sophomore Year

For 201	Forest Biology	2	Sp Sm 212	Fund. of Public Speaking	3
For 202	Wood Utilization	2	Engl 250	W/O/V/E/ Communication	3
For 203	Resource Meas/Eval	2	For 280	Wood Anatomy & Prop	4
For 204	Ecosys. Decision-Making	2	NREM 211	Careers in Nat. Res.	1
For 205	Integrated Forestry Lab	3	Chem 231	Organic Chemistry	3
For 206	Fall Forestry Camp	<u>4</u>	Chem 231L	Organic Chem. Lab	<u>1</u>
		15			15

Junior Year***

Math 151	Calculus	3	For 302	Silviculture	3
Econ 101	Prin. of Microeconomics	3	For 451	For. Econ./Quant. Methods	4
Humanities Elective		3	Stat 401	Statistical Methods	4
Choose:			Choose:		
For 480	Wood Anatomy & Fiber	3	For 486	Moisture Interactions	3
For 483	Wood Deterioration & Pres.	3	For 487	Phy. Properties of Wood	4
Or:			Or:		
For 481	Chemical Conversion	3	Ethics Elective		3
For 485	Lignocellulosic Comp. Materials.	<u>3</u>	International Perspectives Elective		<u>3</u>
		15			17-18

Senior Year***

Communication Elective		3	For 454	For. Practicum	3
US Diversity Requirement		3	Free Electives		6
MKT 340	Principles of Marketing	3	Choose:		
Free Elective		2.5	For 486	Moisture Interactions	3
Choose:			For 487	Phy. Properties of Wood	4
For 480	Wood Anatomy & Fiber	3	Or:		
For 483	Wood Deterioration & Pres.	3	Ethics Elective		3
Or:			International Perspectives Elective		<u>3</u>
For 481	Chemical Conversion	3			15-16
For 485	Lignocellulosic Comp. Materials	<u>3</u>			
		17.5			

* To complete degree program in 4 years students must maintain an average of 16 credits per semester.

** Initial math course is determined on the basis of high school math and placement test scores. A non-credit math course (Math 10) may be required at additional cost.

*** In scheduling coursework, students should pay particular attention to courses with limited offerings (e.g., offered only on alternate years) and to course sequences (i.e., where a course serves as a prerequisite for another course).

Note: In addition to coursework listed above, students must complete departmental requirements for Practical Work Experience requirement (NREM 104). See <<http://www.nrem.iastate.edu/students/undergrad/internship.htm>> for details.