

COLLEGE OF FORESTRY

2023–2024 UNDERGRADUATE

ADVISING GUIDE

WOOD INNOVATION
FOR SUSTAINABILITY



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B.S. in Wood Innovation for Sustainability

The Bachelor of Science degree in Wood Innovation for Sustainability is a multidisciplinary professional program that prepares students to work and design with renewable, plant-based materials such as wood, bamboo, canes, and agricultural fibers. In addition to scientific, mechanical, and design backgrounds, students gain broad perspectives on current issues associated with the sustainable utilization of renewable materials, including global trade, business innovation, energy production, and environmental impacts.

Graduates are highly sought after to work in business, manufacturing operations, and technical support where they use their knowledge and expertise to help develop sustainable products, industrial systems, and economies. Many also chose to start their own businesses in art and design-based fields, utilizing wood as their primary material.

The curriculum includes a broad lower-division core with a choice of one of the required upper-division options in Art and Design, Management and Marketing, or Science and Engineering.

- The **Art & Design (A&D) option** prepares students to engage with renewable materials on both a design and aesthetic level. Artistically oriented students learn how materials function within the human space, gain an understanding of the studio woodturning and studio woodworking movements, and learn skills appropriate for small business ownership or matriculation in wood-design businesses. Unique to this program is a core of woodturning-based courses that teach fundamental wood science and design from a studio perspective.
- The **Management & Marketing (M&M) option** is designed for students interested in business. Completion of the M&M option and meeting additional grade requirements of the College of Business will fulfill the requirements for a transcript-visible minor.
- The **Science & Engineering (S&E) option** is a flexible program that allows technically oriented students to design a personalized curriculum that opens doors to jobs that solve complex problems or to graduate school. Students select courses (often minors) that complement their interests.

In addition to the course work, all students must have six months of work experience in an area related to their major. This is usually accomplished by two summers of employment in business or industry, but it may include work during the academic year. The department has an established network of connections to help place students in internships and summer employment.

Wood Innovation for Sustainability Educational Objectives

The WINS program broadly aims to educate professionals who are job-ready and prepared for a career supplemented by lifelong learning. Students who complete the WINS curriculum at OSU will have the following types of general knowledge and specific competencies.

1. A comprehensive understanding of:

- The structure, physical, chemical, and mechanical properties of wood and other plant-based renewable materials important to the Pacific Northwest.
- The contributions that these materials make to society in the forms of building materials, consumer products, art and design materials, energy and chemicals.

2. A working knowledge of the technologies, processes, and procedures used for:

- Converting wood and other renewable materials into durable and/or aesthetic products.
- Releasing the energy embodied in renewable materials and putting it to use.
- Ensuring safe and efficient manufacturing / fabrication / sculptural operations.
- Characterizing and selecting appropriate materials for specific applications or markets.
- Comparing environmental impacts of different materials.
- Developing new applications and markets for renewable materials.
- Advanced manufacturing processes and settings.

3. A general familiarity with:

- A spectrum of products made from renewable materials that are economically important to the Pacific Northwest including those produced or used in the region, and those representing competition to regional products.
- How policies and regulations affect the use and manufacture of renewable materials and products in the region.
- The structure and dynamics of national and global markets for key renewable materials and products.
- Specific contemporary topics such as green building, energy independence, wooden interiors, or sustainability that affect how society views renewable materials and products.

4. Skills and abilities to:

- Synthesize information to solve problems and think critically.
- Work successfully in a professional environment.
- Utilize computational methods and use specific computer applications.
- Demonstrate strong written and verbal communication skills.
- Appreciate conflicting interests and values.
- Perform selected laboratory and workshop techniques.
- Manage workgroups, including those with people of diverse backgrounds.

5. Practical work experience:

- Students are required to complete 6 months of work experience related to their major which allows them to better understand the nature of the field.

Wood Innovation for Sustainability Student Learning Outcomes

- 1: Demonstrate fundamental knowledge of unique challenges wood and similar renewable materials pose when utilized as industrial, design, and building materials
- 2: Demonstrate understanding and ability to quantify that the effect of moisture on manufacturing, design, and utilization of wood and other hygroscopic renewable materials.
- 3: Demonstrate ability to search, compile, critically evaluate, analyze and communicate technical and/or descriptive information
- 4: Analyze the complex relationship between wood products industry and Sustainable Development Goals (SDGs)
- 5: Demonstrate a combination of technical, design, and business acumen that facilitates responsible management of processes and people, particularly in teams
- 6: Demonstrate knowledge to navigate multiculturalism and become a global citizen
- 7: Demonstrate an understanding of wood products as they relate to Western and non-Western historical use and/or modern products from both an art and design perspective

Wood Innovation for Sustainability Curriculum

In order to earn a BS in Wood Innovation for Sustainability, students must complete the following requirements:

- OSU Baccalaureate Core (“Bacc Core”)
- WINS Core
- WINS Option
- Work Experience
- Additional elective courses sufficient to accumulate a minimum of 180 total credits, of which at least 60 must be upper-division (courses numbered 300 or higher).

Wood Innovation for Sustainability Core (choose one course per category)

Course Number	Cr.	Course Name	Corvallis Campus	Distance Campus (E-Campus)	Prerequisites
CH 121	5	General Chemistry	F, W	F, W, SP, SU	
CH 122*	5	General Chemistry	W, SP	F, W, SP, SU	C- in CH 121
COMM 111Z*	4	Public Speaking	F, W, SP, SU	F, W, SP, SU	
COMM 114*	3	Argument & Critical Discourse	F, W, SP, SU	F, W, SP, SU	
COMM 218Z*	4	Interpersonal Communication	F, W, SP, SU	F, W, SP, SU	
FES 240*	4	Forest Biology	F, SP	F, SP, SU	
FOR 111	3	Introduction to Forestry	F, SP	W, SU	
FOR 112	3	Computing Applications in Forestry	W, SP		
WR 214*	3	Writing in Business	F, W, SP	F, W, SP, SU	C- in WR 121Z
WR 227Z*	3	Technical Writing	F, W, SP, SU	F, W, SP, SU	C- in WR 121Z
WSE 111	2	Wood Innovation for Sustainability	F		
WSE 210*	4	Biology, Structure, and Utilization of Woody Plants	F	F	
WSE 211	4	Woodturning with Science I	F		
WSE 225	3	Building Design Innovation with Wood	SP		
WSE 250	3	Comp. Aided Design of Wood Products	W		
WSE 320	3	Anatomy of Woody Plants	F		WSE 210
WSE 322	4	Physical & Mech Properties of Wood	W		
WSE 453^	3	Forest Products Business	W		ECON 201 & 202 Recommended
WSE 461	4	Intro to Wood Products Manufacturing	F		C- in WSE 210
WSE 465	2	Wood Products Field School	F		Senior year

* Baccalaureate Core Course

^ Writing Intensive Course

Art and Design Option

The Art and Design option prepares students to engage with renewable materials on an aesthetic level, whether as interior designers, fine artists, or entrepreneurs. Students will gain an in-depth knowledge of renewable materials and how those materials can function visually within the human space. In addition to the aesthetic aspect, students will gain an understanding of green building materials and green architecture.

Art and Design Core

Course	Cr	Course Name	Corvallis Campus	Distance Campus (E-Campus)	Prerequisites
ART 291	4	Sculpture I	F		C- in ART 117
ART 339	3	Professional Practices for Artists			
DSGN 121	3	Computer Aided Design	F, W, SP	F,W,SP	
MTH 245	4	Math for Mgmt, Life, and Social Science	SP	W, SP, SU	C- in MTH 111Z
ST 243Z	4	Principles of Statistics I	F, W, SP	F, W, SP, SU	
WSE 112 or ART 115	2 or 4	Sanding & Finishing Wood Products or 2-D Core Studio	F, W, SP	F	
WSE 350	3	Woodworking Practicum	W		
WSE 392* or ART 117	3 or 4	Bambooolooza or 3-D Core Studio	F, W, SP	F, W, SP, SU	Junior standing
WSE 413	4	Woodturning with Science II	W		WSE 210 & 211 w/ C- or better
WSE 417	4	Intro to Sculptural Woodturning	SP		Take with 418
WSE 418	4	Integrated Sculptural Woodturning	SP		Take with 417

* Baccalaureate Core Course (BCC)

^ Writing Intensive Course (WIC)

Area of Concentration:

Your Area of Concentration should include 24 total credits. Of those 24 credits:

- 12 credits must be upper division studio credits (300- 400 level)
- 12 credits must be from the list of Restricted Electives:
 - ARE 310. Architecture Studio (4)
 - ART 101. *Introduction to the Visual Arts (3)
 - ART 121. Digital Core Studio (4)
 - ART 204. *Intro to Western Art: Prehistory to High Middle Ages (3)
 - ART 208. *Introduction to Asian Art (3)
 - ART 210. *History of Western Architecture (3)
 - ART 263. Digital Photography (4)
 - ART 264. *Photography: History, Technology, Culture, and Art (3)
 - ART 313. *Art of Japan (3)
 - ART 347. Photograph: Studio Lighting (4)
 - ART 352. *Creative Collaboration: Design & Building (4)
 - ART 367. *History of Design (3)
 - ART 371. Art, Science, and Technology (3)
 - ART 391. Sculpture II (4)
 - ART 451. Introduction to Arts Entrepreneurship (3)
 - Art 491. Sculpture III (4)
 - DSGN 255. Textiles (4)
 - DSGN 341. Design Thinking and Process Innovation (4)
 - DSGN 383. Building Construction and Materials (3)

TA 244. Scene Crafts (3)
 TA 346. Scene & Stage Design (3)
 WSE 455. Industrial Marketing of Wood Products (3)
 Approved COF Int'l Programs (up to 6 credits)

Bacc Core with Art & Design Option

Bacc Core Category	Fulfilled by
Fitness Lecture	Choose a course
Fitness Activity	Choose a course
Mathematics	MTH 245
Speech	COMM 111Z or 114 or 218Z
Writing I	WR 121Z
Writing II	WR 214 or 227Z
Biological Science	FES 240
Physical Science	CH 122
Add'l Bio or Physical Science	WSE 210
Cultural Diversity	Possible to cover with a restricted elective course
Literature & Arts	Possible to cover with a restricted elective course
Western Culture	Possible to cover with a restricted elective course
Difference, Power, Discrimination	Choose a course
Social Processes & Institutions	Choose a course
Contemporary Global Issues	Choose a course from any department other than WSE
Science, Technology, Society	WSE 392

Sample Course Plan - WINS with Art & Design Option

This is a sample schedule. Actual schedules will vary from student to student based upon factors such as math placement and course availability. Students are strongly encouraged to create a personalized plan with their academic advisor. *Courses that fulfill Baccalaureate Core requirements are italicized.*

B.S. in Wood Innovation for Sustainability Art & Design Option | 2023-2024

	Fall		Winter		Spring	
First Year	WSE 111: Wood Innov for Sust FOR 111: Intro. to Forestry CH 121: General Chemistry I WR 121Z: English Composition	2 3 5 4	CH 122: General Chemistry II FOR 112: Comp Apps in Forestry HHS 231: Lifetime Fitness Physical Activity Course Free Elective	5 3 2 1 3	DSGN 121: Computer Aided Design <i>MTH 245: Math for Mgmt, & Life Sci.</i> <i>Cultural Diversity Bacc Core</i> <i>Literature @ Arts Bacc Core</i> COMM 111Z, 114, or 218Z: Speech	3 4 3 3 3-4
	Total Credits	14	Total Credits	14	Total Credits	16-17
Second Year	<i>FES 240: Forest Biology</i> WSE 210: Bi, Struct @ Utiliz. of Wood WSE 211: Woodturning w/ Sci I WSE 112 or ART 115	4 4 4 2-4	ST 243Z: Principles of Statistics WR 214: Writing in Business <i>Or WR 227Z: Technical Writing</i> WSE 250: CAD of Wood Products Restricted Elective 1 of 4 <i>Diff, Power, Discrim Bacc Core</i>	4 3-4 3 3 3	WSE 392 or ART 117 WSE 225: Build. Des. Innov. w/ Wood <i>Western Culture Bacc Core</i> <i>Social Processes @ Inst Bacc Core</i> Free Elective	3-4 3 3 3 2
	Total Credits	14-16	Total Credits	16	Total Credits	14-15
Third Year	ART 291: Sculpture I WSE 320: Anat. of Woody Plants ART 339: Prof Practice for Artists Restricted Elective 2 of 4	4 3 3 3	WSE 322: Phys & Mech Prop of Wood WSE 350: Woodworking Practicum WSE 413: Woodturning w/ Sci II Restricted Elective 3 of 4 UD Studio Art Course 1 of 4	4 3 4 3 3	Restricted Elective 4 of 4 UD Art Studio Course 2 of 4 Free Elective Free Elective Free Elective	3 3 3 3 3
	Total Credits	13	Total Credits	17	Total Credits	15
Fourth Year	UD Art Studio course 3 of 4 WSE 465: Wood Prod. Field School WSE 461: Intro Wood Prod. Mfg. Free Elective Free Elective	3 2 4 3 3	<i>WSE 453: Forest Products Business</i> <i>Contemporary Global Issues Bacc Core</i> UD Studio course 4 of 4 Free Elective	3 3 3 4	WSE 417: Intro Sculpt. Woodturning WSE 418: Integ. Sculpt. Woodturning Free Elective Free Elec if needed to reach 180 min.	4 4 3 3+
	Total Credits	15	Total Credits	13	Total Credits	14+

Management & Marketing Option

The Management & Marketing option provides students with the skills to manage organizations to be competitive in the global wood products marketplace or develop innovative and effective marketing programs for green products. Completion of the Management & Marketing option (and meeting additional grade requirements for the College of Business) will fulfill the requirements for a transcript-visible Business minor.

Management & Marketing Core

Course	Credit	Course Title	Corvallis Campus	Distance Campus (E-Campus)	Prerequisites
BA 260	4	Intro to Entrepreneurship	F, W, SP	F, W, SP, SU	
BA 314	4	Sustainable Business Operations	SP	F, W, SP	
BA 315	4	Accounting for Decision Making	W, SP	F, W, SP, SU	
BA 330	4	Legal Environment of Business	W, SU	F, W, SP, SU	
BA 351	4	Managing Organizations	F, SP	F, W, SP, SU	
BA 360	4	Introduction to Financial Management	F, W, SP, SU	F, W, SP, SU	C- in BA 315 & ECON 201
BA 390	4	Principles of Marketing	F, W, SP	F, W, SP, SU	ECON 201 w/ C- or better
ECON 201	4	Principles of Microeconomics	F, W, SP	F, W, SP, SU	MTH 111Z recommended
ECON 202	4	Principles of Macroeconomics	F, W, SP	F, W, SP, SU	MTH 111Z recommended
MTH 241 or MTH 251	4 4	Calculus for Business and Social Sciences or Differential Calculus	F, W, SP, SU F, W, SP, SU	F, W, SP, SU F, W, SP, SU	MTH 111Z or ALEKS of 60 MTH 112Z or ALEKS of 75
ST 351	4	Introduction to Statistical Methods I	F, W, SP, SU	F, W, SP, SU	
ST 352	4	Introduction to Statistical Methods II	F, W, SP	F, W, SP, SU	D- in ST 351
WSE 455	3	Industrial Marketing of Wood Products	F		
WSE 457	3	Wood Product Sales	SP		C in WSE 210
WSE 471 or WSE 385*	3 3	Res. Bldg. Construction & Materials Eval. Sustain. Through Life-Cycle Analysis		SP	Not offered

* Baccalaureate Core Course (BCC)

Area of Concentration:

Your area of concentration should include a total of 18 credits from the list of restricted electives:

- AEC 211. Agricultural and Food Management (4)
- AEC 221. Agricultural and Food Marketing (3)
- AEC 251. *Introduction to Agricultural & Food Economics (3)
- AEC 351. *Natural Resources Economics and Policy (3)
- AEC/ECON 352. *Environmental Economics and Policy (3)
- AEC 447. Agricultural Price and Market Analysis (4)
- BA 347. International Business (4)
- BA 362. Social Entrepreneurship and Social Initiatives (4)
- BA 432. *Environmental Law, Sustainability, and Business (3)
- BA 458. Innovation and New Product Development (4)
- BA 460. Venture Management (4)
- BANA 370. Introduction to Business Analytics (4)
- ECON 340. International Economics (4)
- FES 241. Dendrology (3)
- FOR 329. Forest Resource Economics I (4)

FOR 332. Forest Resource Economics II (2)
 FE/FOR 456. * International Forestry (3)
 MGMT 364. Project Management (4)
 MGMT 450. Introduction to Mentoring and Coaching (4)
 MGMT 452. Leadership (4)
 MRKT 323. Advanced Application of Marketing Principles (4)
 MRKT 486. Customer Relationship Management (4)
 MRKT 488. Professional Selling (4)
 MRKT 489. Personal Selling Skills and Techniques (4)
 MRKT 493. Integrated Marketing Communications (4)
 MRKT 497. Global Marketing (4)
 PS 475. Environmental Politics and Policy (4)
 PS 477. International Environmental Politics and Policy (4)
 SOC 480. * Environmental Sociology (4)
 SOC 481. *Society and Natural Resources (4)
 WSE 112. Sanding & Finishing Wood Products (2)
 WSE 240. Fungal Decay in our World (4) not currently offered
 WSE 266. *Hempology: The Industrial Hemp Story (3)
 WSE 321. Wood Chemistry (3)
 WSE 324. Physical & Mechanical Properties of Wood Practicum (4)
 WSE 350. Woodworking Practicum (3)
 WSE 392. *Bamboozoo: the Fascinating World of Bamboo (3)
 WSE 413. Woodturning with Science II (4)
 WSE 417. Introduction to Sculptural Woodturning (4)
 WSE 418. Integrated Sculptural Woodturning (4)
 WSE 425. Timber Tectonics in the Digital Age (4)
 WSE 430. Fundamentals of Engineering Mechanics (4) not currently offered
 WSE 462. Advanced Wood Manufacturing I (4) not currently offered
 WSE 463. Advanced Wood Manufacturing II (4) not currently offered
 WSE 470. * Forests, Wood, and Civilization (3)
 WSE 492. Forest to Frame: Mass Timber (3) not currently offered
 Approved COF Int'l Programs (up to 6 credits)

Bacc Core with Management & Marketing Option

Bacc Core Category	Fulfilled by
Fitness Lecture	Choose a course
Fitness Activity	Choose a course
Mathematics	MTH 241 or 251
Speech	COMM 111Z or 114 or 218Z
Writing I	WR 121Z
Writing II	WR 214 or 227Z
Biological Science	FES 240
Physical Science	CH 122
Add'l Bio or Physical Science	Choose a course
Cultural Diversity	Choose a course
Literature & Arts	Choose a course
Western Culture	Choose a course
Social Processes & Institutions	ECON 201
Difference, Power, Discrimination	Choose a course
Contemporary Global Issues	Possible to cover with a restricted elective course
Science, Technology, Society	WSE 385

Sample Course Plan - WINS with Marketing & Management Option

This is a sample schedule. Actual schedules will vary from student to student based upon factors such as math placement and course availability. Students are strongly encouraged to create a personalized plan with their academic advisor. *Courses that fulfill Baccalaureate Core requirements are italicized.*

B.S. in Wood Innovation for Sustainability Marketing & Management Option | 2023-2024

	Fall		Winter		Spring	
First Year	<i>MTH 111Z: College Algebra</i> 4 CH 121: General Chemistry I 5 FOR 111: Intro to Forestry 3 WSE 111: Wood Innovation for Sus 2		MTH 241 or 251: Calculus 4 CH 122: General Chemistry II with lab 5 FOR 112: Comp. Apps in Forestry 3 COMM 111Z, 114 or 218Z: Speech 3-4		PAC: Physical Activity Course 1 HHS 231: Lifetime Fitness 2 ECON 201: Prin. of Microeconomics 4 WR 121Z: English Composition 4 Literature & Arts Bacc Core 3	
	Total Credits	14	Total Credits	15-16	Total Credits	14
Second Year	FES 240: Forest Biology 4 WSE 210: RM Tech & Utilization 4 WSE 211: Woodturning I 4 Difference, Power, Discrim Bacc Core 3		WSE 250: CAD of Wood Products 3 ECON 202: Macroeconomics 4 ST 351: Principle of Statistics 4 BA 330: Legal Env. of Business 4		WR 214: Business Writing or WR 227Z: Technical Writing 3-4 BA 260: Intro to Entrepreneurship 4 ST 352: Principles of Statistics 4 WSE 225: Bldg Des. Innov. with Wood 3	
	Total Credits	15	Total Credits	15	Total Credits	14-15
Third Year	WSE 320: Wood Anatomy 3 BA 351: Managing Organizations 4 Restricted Elective 1 of 5 4 WSE 455: Indus. Mktg in For Sector 3		WSE 322: Phys & Mech Prop of Wood 4 BA 360: Intro to Financial Mgmt 4 Restricted Elective 2 of 5 4 Global Issues Bacc Core 3		WSE 457: Wood Product Sales 3 BA 314: Sustainable Business Ops 4 BA 390: Principles of Marketing 4 Restricted Elective 3 of 5 4	
	Total Credits	14	Total Credits	15	Total Credits	15
Fourth Year	WSE 465: Wood Prod. Field School 2 WSE 461: Intro Wood Prod. Mfg. 4 Restricted Elective 4 of 5 3 Free Elective 4 Free Elective 3		BA 315: Account for Decision Making 4 WSE 453: Forest Products Business 3 Cultural Diversity Bacc Core 3 Western Culture Bacc Core 3 Restricted Elective 5 of 5 3		WSE 385: Evaluating Sustainability 3 Free Elective 3 Free Elective 3 Free Elective 3 Free Elective as needed to reach 180 3	
	Total Credits	16	Total Credits	16	Total Credits	15

Science and Engineering Option

This is a flexible, math- and science-intensive option that allows students to design a personalized curriculum that opens doors to jobs that solve complex problems, create efficiencies, foster intelligent use of renewable materials, or to graduate school.

Science & Engineering Core

Course	Credits	Course Title	Corvallis Campus	Distance Campus (E-Campus)	Prerequisites
CH 123	5	General Chemistry III	SP	F,W,SP,SU	C- in CH 122
ECON 201	4	Principles of Microeconomics	F,W,SP	F,W,SP,SU	MTH 111Z rec.
MTH 251*	4	Differential Calculus	F,W,SP,SU	F,W,SP,SU	C- in MTH 112Z
MTH 252	4	Integral Calculus	F,W,SP,SU	F,W,SP,SU	C- in MTH 251
MTH 254	4	Vector Calculus I	F,W,SP,SU	F,W,SP,SU	C- in MTH 252
PH 201*, 202 & 203 or PH 211*, 212 & 213	5, 5, 5 4, 4, 4	General Physics General Physics with Calculus	F,W,SP,SU F,W,SP,SU	F, W, SP	Perquisites/co-requisites vary
ST 243Z or ST 314 or ST 351	4 3 4	Principles of Statistics Introduction to Statistics for Engineers Intro to Statistical Methods	F,W,SP F,W,SP F,W,SP,SU	F,W,SP,SU F,W,SP,SU F,W,SP,SU	MTH 252
WSE 321	3	Wood Chemistry	F		Chemistry
WSE 324	3	Physical & Mechanical Properties of Wood Practicum	SP		WSE 321 & 322
WSE 425	4	Timber Tectonics in the Digital Age	F		WSE 250
WSE 430	4	Fundamentals of Engineering Mechanics			MTH 254 & WSE 324
WSE 462	4	Advanced Wood Manufacturing I	W		WSE 461 w/ C- or better
WSE 463	4	Advanced Wood Manufacturing II			WSE 462 w/C- or better
WSE 471 or WSE 385*	3 3	Res. Bldg. Construction & Materials Eval. Sustain. Through Life-Cycle Analysis		SP	Not offered

* Baccalaureate Core Course (BCC)

Area of Concentration:

Your area of concentration should include 16 total credits, 12 of which should be upper-division (300-400 level classes). Many students opt to complete a minor as their area of concentration in this option, however, you are free to design your area of concentration any way you wish (a selection of individual classes around a theme vs. an OSU approved minor)

Bacc Core with Science & Engineering Option

Bacc Core Category	Fulfilled by
Fitness Lecture	Choose a course
Fitness Activity	Choose a course
Mathematics	MTH 251
Speech	COMM 111Z or 114 or 218Z
Writing I	WR 121Z
Writing II	WR 214 or 227Z
Biological Science	FES 240
Physical Science	CH 122
Add'l Bio or Physical Science	CH 123
Cultural Diversity	Choose a course
Literature & Arts	Choose a course
Western Culture	Choose a course
Social Processes & Institutions	ECON 201
Difference, Power, Discrimination	Choose a course
Contemporary Global Issues	Choose a course
Science, Technology, Society	WSE 385

Sample Course Plan - WINS with Science & Engineering Option

This is a sample schedule. Actual schedules will vary from student to student based upon factors such as math placement and course availability. Students are strongly encouraged to create a personalized plan with their academic advisor. *Courses that fulfill Baccalaureate Core requirements are italicized.*

B.S. in Wood Innovation for Sustainability Science & Engineering Option | 2023-2024

	Fall		Winter		Spring	
First Year	MTH 251: <i>Differential Calculus</i> CH 121: General Chemistry I FOR 111: Intro to Forestry WSE 111: Wood Innov for Sus	4 5 3 2	WSE 250: CAD for Wood Products MTH 252: Integral Calculus <i>CH 122: General Chemistry II with Lab</i> FOR 112: Computing Apps in Forestry	3 4 5 3	MTH 254: Vector Calculus <i>CH 123: General Chemistry III</i> <i>PAC: Physical Activity Course</i> WR 121Z: <i>English Composition</i> <i>HHS 231: Lifetime Fitness for Health</i>	4 5 1 4 2
	Total Credits	14	Total Credits	15	Total Credits	16
Second Year	<i>COMM 111 or 114 or 218: Speech</i> WSE 210: RM Tech & Utilization WSE 211: Woodturning I <i>PH 211: General Physics w/ Calc.</i> Free elective	3-4 4 4 4 2	<i>PH 212: General Physics w/ Calc</i> <i>WR 214: Business Writing</i> <i>or WR 227Z: Technical Writing</i> <i>ECON 201: Intro to Macroeconomics</i> <i>Difference, Power, Discrimination BC</i>	4 3-4 4 4 3	<i>PH 213: General Physics w/ Calc</i> ST 243Z, 314, or 351: Stats <i>FES 240: Forest Biology</i> WSE 225: Bldg Design with Wood	4 3-4 4 4 3
	Total Credits	16-17	Total Credits	14-15	Total Credits	14-15
Third Year	WSE 320: Wood Anatomy WSE 321: Wood Chemistry Area of Concentration course 1 of 4 <i>Western Culture Bacc Core course</i> Free elective	3 3 4 3 3	WSE 322: Phys & Mech Prop of Wood Area of Concentration course 2 of 4 <i>Literature @ Arts Bacc Core</i> Free elective	4 4 3 4	WSE 430 or MATS 321: Engineering WSE 324: Phys & Mech Prop of Wood <i>Contemporary Global Issues Bacc Core</i> Free Elective	4 3 3 4
	Total Credits	16	Total Credits	15	Total Credits	14
Fourth Year	WSE 465: Wood Prod Field School WSE 461: Intro Wood Prod Mfg WSE 425: Timber Tectonics Area of Concentration course 3 of 4	2 4 4 4	WSE 453: Forest Products Business WSE 462: Advanced Manufacturing I Area of Concentration course 4 of 4 Free elective	3 4 4 3	WSE 463: Advanced Manufacturing II <i>WSE 385: Evaluating Sustainability</i> <i>Cultural Diversity Bacc Core</i> Free Elective Free Elective to reach 180 cr. total	3 3 3 3 3+
	Total Credits	14	Total Credits	14	Total Credits	15+

Academic Advising

The College of Forestry and the Department of Wood Science and Engineering are committed to helping students succeed. That includes assistance with identifying majors and minors, and understanding broader University rules and regulations. The COF Head Advisor is your first point of contact when you have academic questions. Assistance with internships and work experiences is available from Allison Culver in the Wood Science & Engineering department.

The most current advising information, and appointment scheduling, is available online: forestry.oregonstate.edu/student-services/advising

 <p>Nicole Kent Head Advisor Wood Innovation for Sustainability Peavy 116 - H 541-737-1592 Nicole.kent@oregonstate.edu</p>	 <p>Allison Culver Internship & Work Experience Wood Science & Engineering Dept. Richardson 119 - C 541-737-5091 Allison.Culver@oregonstate.edu</p>
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What:

You can expect your advising appointments to be 30 minutes of one-on-one time with your academic advisor. You and your advisor will both prepare in advance—reviewing your MyDegrees page, preparing questions, and looking ahead. During your appointment, you will review your progress, make plans for the upcoming term(s), discuss opportunities and resources pertinent to your goals, and track your progress toward graduation. While your advisor is here to assist and guide you, your educational choices are yours to make. We advise and you decide.

When:

COF students are required to meet with their academic advisor at least once per quarter, and are welcome to meet more often. It's always okay to call, email, or drop in with questions.

How:

The easiest way to schedule your advising appointment is using your advisor's online calendar: forestry.oregonstate.edu/student-services/advising

Requirements for Graduation

In addition to the University and degree program requirements, WINS students meet the following requirements to graduate:

- **S/U Grading:** Students majoring in WINS may not take for S/U grading (Satisfactory/Unsatisfactory) any course listed as a requirement for the major. This includes approved substitutions. Baccalaureate core courses may be taken S/U unless they are also being used to fulfill a major requirement.
- **Grades of C- or better** must be earned in all WSE, FOR, FE, FES, NR, or TRAL classes (or their approved substitutions).
- **Approved Work Experience:** WINS students must complete at least six months of full-time work experience related to the major (see page 16).

Work Experience Requirement

Students in WINS must complete a minimum of six months of work experience as part of their degree requirements. 150 hours equals one month of work so six months equals 900 hours of certified work experience. A minimum of 3 months of work experience should come from work with a company or through an approved entrepreneurial work experience outside of OSU (see below).

The procedure for documenting completed work experience is as follows:

- 1) Students complete the Work Experience Practicum form available online: forestry.oregonstate.edu/studentservices/work-experience
- 2) Work Experience Practicum form is routed to the student's supervisor and the Department Chair (or designee) for their major, and those individuals complete the online evaluation.
- 3) Completed Work Experience Practicum Forms are reviewed and evaluated by your Academic Advisor and the experience is documented in MyDegrees.

All work experience forms should be completed at least three months prior to your expected graduation date to allow for employer evaluations and updating of your student record.

Failure to document required work experience in a timely manner could delay your graduation.

Work Experience Information for WINS Students

Students must meet with the WSE Program & Curricular Coordinator prior to completing and submitting a Work Experience Practicum form addressing the learning outcomes, type of job performed, supervisor contact information, etc. This will be used to send an evaluation to the supervisor.

- The immediate supervisor cannot be a current OSU undergraduate student, an employee in a supervisory role who is not a current OSU undergraduate student should evaluate work, verify hours and complete the employee evaluation.
- If you are self-employed and do not have a direct supervisor, your work experience will be evaluated by a member of the College of Forestry who will determine if your work meets program guidelines and should be forwarded to the Department Designee for certification.

Entrepreneurial Work Experience Guidelines for WINS Students

- 1) Students must submit a business and marketing plan for approval before receiving permission to continue with an entrepreneurial experience that will be credited as internship hours. The entrepreneurial experience must be related to renewable materials.
- 2) Students must connect with a local mentor, such as a business owner or artist/designer that works in a field similar to their interests. The mentor must be willing to spend at least 2 hours per month working with the student to guide the experience and provide expertise. OSU faculty cannot be mentors, because making connections with the industry is vital to running a business.

OR

Students must apply and be accepted into a product accelerator program such as RAIN Corvallis or RAIN Eugene.

- 3) At the end of the internship experience, students will be required to present their experience to the WSE Student Programs & Curriculum Coordinator, assessing their successes/failures, and showing evidence of significant marketing and product sales whether web based or brick and mortar retail/wholesale sales.