COLLEGE OF NATURAL RESOURCES AND ENVIRONMENT
Department of Sustainable Biomaterials
Bachelor of Science in Sustainable Biomaterials
Major in Sustainable Biomaterials
For students graduating in calendar year 2018

Name: ___________________________ Student ID _______________________
Advisor: ___________________________ Expected graduation: _______________

Minimum hours for degree is 120. A minimum GPA of 2.0 is required for all work applied to the major.

Major Requirements

Sustainable Biomaterials Common Core – 30 credit hours
  __ SBIO 1234 Introduction to Wood, Design, and Craftsmanship (3)
  __ SBIO 2124 Structure and Properties of Sustainable Biomaterials (3) (Pre: BIOL 1005, CHEM 1035)
  __ SBIO 2614 Introduction to Forest Products Marketing (3) or SBIO 3454 Society, Sustainable Biomaterials, and Energy (3) or SBIO 3464 Forest Products Business Systems (3) (Pre: 2614)
  __ SBIO 3004 Sustainable Nature-based Enterprise (3)
  __ SBIO 3114 Biodeterioration, Bioconversion and Bioenergy (3) (Pre: CHEM 1035, BIOL 1115)
  __ SBIO 3445 Entrepreneurial Wood Design and Innovation (3) or SBIO 4994 Undergraduate research (3), or SBIO 3964 Field Study (3) or SBIO 3954 Study Abroad (3)
  __ SBIO 4715-4716 Wood House (3, 3)
  __ STAT 3615 Biological Statistics (3)
  __ STAT 3616 Biological Statistics (3) (Pre: STAT 3615)

Track Requirements

Creating Sustainable Society Track - 18 credit hours
  __ AAEC 3314 Environmental Law (3)
  __ SBIO 2964 or 4964 Field Study or SBIO 2994 or 4994 Undergraduate Research or SBIO 3954 Study Abroad (at least 3 credit hours)
  __ SBIO 3324 Green Building Systems (3)
  __ SBIO 3554 Sustainable Biomaterials Enterprises (3)
  Choose either these 2 ENGR courses or these 2 NR courses
  __ ENGR 3124 Green Engineering (3) (Pre: CHEM 1035 or 1074, ENGR 1104 or 1114, PHYS 2306)
  AND
  __ ENGR 4134 Environmental Life Cycle Assessment (3) (Pre: ENGR 3124)
  OR
  __ GEOG/NR 1115 AND
  __ GEOG/NR 1116 Seeking Sustainability (3, 3) (Pre: NR 1115 for 1116)

Free electives - 36 credit hours

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Forest Products Business Track - 18 credit hours

  __ ACIS 2115 Principles of Accounting (3)
  __ SBIO 2614 Introduction to Forest Products Marketing (3)
  __ SBIO 3446 Entrepreneurial Wood Design and Innovation (3) (Pre: 3445)
  __ SBIO 3464 Forest Products Business Systems (3) (Pre: 2614)
  __ SBIO 3554 Sustainable Biomaterials Enterprises (3) (Pre: 1234)
  __ MGT 3304 Management Theory and Leadership Practice (3) (Pre: Sophomore standing)
Free electives - 36 credit hours

Sustainable Biomaterials Science Track - 38 credit hours

- CHEM 1036 General Chemistry (3) (Pre: CHEM 1035 or 1055)
- CHEM 2114 Analytical Chemistry (3) (Pre: CHEM 1036 or CHEM 1056)
- CHEM 2124 Analytical Chemistry Laboratory Techniques and Practice (1) (Pre: CHEM 1046 or CHEM 1066; Co: CHEM 2114)
- CHEM 2535 Organic Chemistry (3) (Pre: CHEM 1036 or CHEM 1056)
- CHEM 2536 Organic Chemistry (3) (Pre: CHEM 2535 or CHEM 2565)
- CHEM 2545 Organic Chemistry Laboratory (1) (Pre: CHEM 1046 or CHEM 1066; Co: CHEM 2535)
- CHEM 2546 Organic Chemistry Laboratory (1) (Pre: CHEM 2545; Co: CHEM 2536)
- CHEM 4615 Physical Chemistry for the Life Sciences (3) (Pre: One year of chemistry, physics, and calculus)
- PHYS 2205 General Physics (3) (Pre: (MATH 1016 or MATH 1025) or (MATH 2015 or MATH 1026) or MATH 1205 or MATH 1525 or MATH 1535)
- PHYS 2206 General Physics (3) (Pre: PHYS 2205 or PHYS 2305)
- SBIO 3314 Wood Mechanics (4) (Pre: 2554, MATH 1016 or MATH 1025)
- SBIO 3434 Chemistry and Conversion of Sustainable Biomaterials (3) (Pre: 2124, CHEM 1036)
- SBIO 3444 Sustainable Biomaterials and Bioenergy (3) (Pre: CHEM 2514 or CHEM 2535, CHEM 3615 or CHEM 4615)
- SBIO 4444 Sustainable Biomaterial Composites (4) (Pre: 2124, 2384, 3434)

Free electives – 16 credit hours

Sustainable Residential Structures Track – 18 credit hours

- AHRM 2604 House Planning (2)
- CHEM 1036 General Chemistry (3) (Pre: CHEM 1035 or 1055)
- PHYS 2205 General Physics (3) (Pre: (MATH 1016 or MATH 1025) or (MATH 2015 or MATH 1026) or MATH 1205 or MATH 1525 or MATH 1535)
- SBIO 3314 Wood Mechanics (4) (Pre: 2554, MATH 1016 or MATH 1025)
- SBIO 3324 Green Building Systems (3)
- SBIO/CNST 4314 Design of Wood Structures (3) (Pre: 3314 or CEE 3404)

Free electives - 36 credit hours
Curriculum for Liberal Education Requirements – 36 credit hours

Area 1: Writing and Discourse (6 credit hours required)
  ___ ENGL 1105 First-year Writing (3)
  ___ ENGL 1106 First-year Writing (3) (Pre: ENGL 1105)

Area 2: Ideas, Cultural Traditions, and Values (6 credit hours required)
  ___ CLE Area 2 course:
  ___ CLE Area 2 course:

Area 3: Society and Human Behavior (6 credit hours required)
  ___ ECON 2005 Principles of Economics (3)
  ___ ECON 2006 Principles of Economics (3) (Pre: ECON 2005 or 2116 or 2126 or 2025H)

Area 4: Scientific Reasoning and Discovery (8 credit hours required)
  ___ BIOL 1105 Principles of Biology (3) (Co: BIOL 1115)
  ___ BIOL 1115 Principles of Biology Laboratory (1) (Co: BIOL 1105)
  ___ CHEM 1035 General Chemistry (3)
  ___ CHEM 1045 General Chemistry Laboratory (1) (Co: CHEM 1035)

Area 5: Quantitative and Symbolic Reasoning (6 credit hours required)
  ___ MATH 1025 Elementary Calculus (3)
  ___ MATH 1026 Elementary Calculus (3) (Pre: MATH 1025)

Area 6: Creativity and Aesthetic Experience (1 credit hour required)
  ___ CLE Area 6 course:

Area 7: Critical Issues in a Global Context (3 credit hours required)
  ___ SBIO/FOR 2784 Global Forest Sustainability (3)

Satisfactory Progress
By the end of the semester in which the student has attempted 60 hours (including transfer, advanced placement, advanced standing, and credit by examination), "satisfactory progress" towards a B.S. degree in the College of Natural Resources and Environment will include the following minimum criteria:

- Having a grade point average of at least 2.0
- Passing at least 24 semester credits that apply to the Curriculum for Liberal Education
- Passing the required 1000-level courses in Biology, Chemistry, English, and Math

Foreign Language Requirement
  ___ 2 years of one language in high school
or
  ___ FL 1105 and 1106 if less than two years of one language in high school

Sequencing
Courses should be taken in a sequence that ensures that prerequisite or corequisite requirements are met. Free elective courses may also have prerequisite requirements. Students should plan ahead and ensure that they have completed prerequisites or are enrolled in corequisite courses.

In-major GPA computation
Includes all courses designated SBIO. The acceptable minimum is 2.0.

Prerequisites
Some courses listed on this checksheet have prerequisites or corequisites, please consult the University Course Catalog and check with your advisor.