

Forestry

Five specializations are offered within the major in forestry: Forest Resources Management, Forest Hydrology, Urban Forest Management, Forest Recreation and Park Management, and Wildlife Habitat Management and Conservation. University Core Curriculum requirements and a core of professional courses are similar for each specialization. Students majoring in forestry may not take courses specifically required in the various specializations for pass/fail credit.

A Conservation Law Enforcement Certificate (42 credit hours) is jointly offered through Forestry and Criminology and Criminal Justice for interested students.

Available to the forestry program for teaching and research in addition to resources present on campus are the following: the Crab Orchard National Wildlife Refuge; the Shawnee National Forest; a number of state parks and state forests; conservation areas and federal reservoirs. Collectively, these public lands and waters offer considerable and diverse outdoor educational and recreational opportunities, all in the vicinity of the University.

The curricula of the forestry program prepare graduates for employment with local, state and federal natural resource agencies, as well as private industry. In addition, many graduates continue their education in advanced masters and doctoral programs. Federal agencies employing our graduates include the Forest Service, Natural Resources Conservation Service, Fish and Wildlife Service, National Park Service, Bureau of Reclamation, Bureau of Land Management, Environmental Protection Agency, Tennessee Valley Authority, and the Army Corps of Engineers. There are also employment opportunities in state government with agencies such as fish and game commissions, departments of natural resources and conservation, and forest services. At the local level, there are opportunities with urban forest and park systems. Private agencies have included Ducks Unlimited, the Nature Conservancy, the National Audubon Society and the American Forestry Association. Forestry graduates often are employed by private forestry consulting firms and by private industries such as Weyerhaeuser Co., International Paper Co., Georgia Pacific Corporation, and New Page Corporation.

The educational programs for the specializations in Forest Resources Management, Forest Hydrology, Urban Forest Management, Forest Recreation and Park Management, and Wildlife Habitat Management and Conservation leading to the B.S. in Forestry are accredited by the Society of American Foresters (SAF, eforester.org).

Bachelor of Science (B.S.) in Forestry

Forest Hydrology Specialization

The specialization in Forest Hydrology helps students develop knowledge and skills in integrated natural resource management in a watershed context with an emphasis on freshwater and forest resources. The goal of the Forest Hydrology specialization is to prepare individuals for water-related careers in federal and state government agencies, municipal/county watershed management, and environmental/engineering consulting firms. This specialization also prepares students for graduate study in natural resource management and hydrology. The specialization includes areas of study recommended and accredited by the Society of American Foresters and includes the course work necessary to qualify as a hydrologist in a federal agency. Students in the specialization are required to participate in the forestry field studies course (FOR 450) to gain practical field experience. Costs per student for off-campus living expenses and transportation for summer field-studies are not to exceed \$600 and must be borne by the student. Other costs for equipment and supplies, which are required for field study and certain other courses, are specified in course descriptions.

B.S. Forestry - Forest Hydrology Specialization Degree Requirements

Degree Requirements	Credit Hours
University Core Curriculum Requirements	39
Requirements for Major in Forestry with Forest Hydrology Specialization	81
Forestry Core: FOR 100, FOR 201, FOR 202, FOR 285, FOR 308, FOR 310, FOR 314, FOR 325, FOR 331, FOR 351, FOR 352, FOR 381, FOR 411, FOR 430 ¹	41
CHEM 140A, Science Requirement: (one of the following) ZOOLOGY 115, ZOOLOGY 118, PLB 115, PLB 200 ²	(6) + 1-2
ABE 204 or ECON 240 ³	(3)
Summer Field Studies: FOR 450	4
MATH 108 or MATH 109 or MATH 140 or MATH 141	(3) - 1
FOR 402, FOR 421, FOR 429, FOR 452L, (FOR 416 or FOR 420)	13-14
FOR 312 or ABE 318 or MATH 282 or PLB 360	3
Forestry Electives (FE): CSEM 446, CSEM 447, CSEM 448, CSEM 468, FOR 125, FOR 210, FOR 220, FOR 230, FOR 302, FOR 305, FOR 312, FOR 315, FOR 350, FOR 375, FOR 390, FOR 403, FOR 404, FOR 405, FOR 415, FOR 416, FOR 420, FOR 425, FOR 428, FOR 431, FOR 451, FOR 460, FOR 470, FOR 480, FOR 486, GEOG 330, GEOG 401, GEOG 404, GEOG 406, GEOG 420, GEOG 431, GEOG 433, GEOG 434, GEOL 416, GEOL 470, GEOL 471, GEOL 474, MATH 150, PHYS 203A, PHYS 203B, ZOOLOGY 410, ZOOLOGY 411, ZOOLOGY 414, ZOOLOGY 415, ZOOLOGY 458, ZOOLOGY 466, ZOOLOGY 468, ZOOLOGY 477 ⁴	15-19
Total	120

¹ FOR 308 - Substitution of GEOG 401 or other equivalent GIS course may be allowed with approval.
FOR 352 - Substitution of CSEM 240 or other equivalent Soil Science course may be allowed with approval.

² Hours included in total for University Core Curriculum requirements.

³ Hours included in total for University Core Curriculum requirements.

⁴ Minimum hours required to bring total to 120. No course may be used for more than one requirement. Only 6 hours of lower level coursework (100/200) may be used as FE. Specialization exceptions: MATH 140, MATH 141, MATH 150, PHYS 203A and PHYS 203B.

Forest Recreation and Park Management Specialization

The specialization in Forest Recreation and Park Management provides interdisciplinary training for management of the nation's outdoor recreation heritage. The National Recreation and Park Association and the Society of American Foresters are among those organizations recommending the courses offered. The goal of the Forest Recreation and Park Management option is to prepare students for entry into professional careers in planning, managing, and administering public lands for outdoor recreation operated by a variety of agencies in diverse geographic and natural settings. Students in the specialization are required to participate in the forestry field studies course (FOR 450) to gain practical field experience. Costs per student for off-campus living expenses and transportation for summer field-studies are not to exceed \$600 and must be borne by the student. Other costs for equipment and supplies, which are required for field study and certain other courses, are specified in course descriptions.

B.S. Forestry - Forest Recreation and Park Management Specialization Degree Requirements

Degree Requirements	Credit Hours
University Core Curriculum Requirements	39
Requirements for Major in Forestry with Forest Recreation and Park Management Specialization	81
Forestry Core: FOR 100, FOR 201, FOR 202, FOR 285, FOR 308, FOR 310, FOR 314, FOR 325, FOR 331, FOR 351, FOR 352, FOR 381, FOR 411, FOR 430 ¹	41
CHEM 140A, Science Requirement: (one of the following) ZOOL 115 or ZOOL 118, PLB 115 or PLB 200 ²	(6) + 1-2
ABE 204 or ECON 240 ³	(3)
ENGL 101, ENGL 102, (ABE 318 or FOR 312 or MATH 282 or PLB 360), CMST 101, (MATH 106 or MATH 108 or MATH 125) ⁴	(12) + 3-4
HORT 328A and HORT 328B Landscape Design and Landscape Design Lab	4
Summer Field Studies: FOR 450	4
FOR 220, FOR 420, FOR 421, FOR 423	11
Forestry Electives (FE): ANTH 430A, BIOL 307, CMST 412, FOR 125, FOR 210, FOR 230, FOR 302, FOR 305, FOR 312, FOR 315, FOR 350, FOR 375, FOR 390, FOR 402, FOR 403, FOR 404, FOR 405, FOR 409, FOR 415, FOR 416, FOR 425, FOR 428, FOR 429, FOR 431, FOR 451, FOR 452L, FOR 470, FOR 480, FOR 486, GEOG 401, GEOG 404, GEOG 406, GEOG 420, GEOG 471, MGMT 304, MGMT 350, PSYC 307, REC 300, REC 303, REC 430, SOC 386, ZOOL 410, ZOOL 411, ZOOL 468, ZOOL 469	14-17

Degree Requirements	Credit Hours
Total	120

¹ FOR 308 - Substitution of GEOG 401 or other equivalent GIS course may be allowed with approval.
FOR 352 - Substitution of CSEM 240 or other equivalent Soil Science course may be allowed with approval.

² Hours included in total for University Core Curriculum requirements.

³ Hours included in total for University Core Curriculum requirements.

⁴ Hours included in total for University Core Curriculum requirements.

Forest Resources Management Specialization

The specialization in Forest Resources Management includes instruction leading to careers in forest management and production, forest ecosystem management, and the forest products industries. The goal of the Forest Resources Management specialization is to develop individuals with sufficient understanding of the physical, biological and economic considerations required to make sound management decisions for forest sustainability. The specialization includes areas of study recommended and accredited by the Society of American Foresters. Emphasis is upon integrated resource management of natural and renewable resources, coordinating forest utilization methods and conservation practices, and sustaining our wild lands heritage. Students in the specialization are required to participate in the forestry field studies course (FOR 450) to gain practical field experience. Costs per student for off-campus living expenses and transportation for summer field-studies are not to exceed \$600 and must be borne by the student. Other costs for equipment and supplies, which are required for field study and certain other courses, are specified in course descriptions.

B.S. Forestry - Forest Resources Management Specialization Degree Requirements

Degree Requirements	Credit Hours
University Core Curriculum Requirements	39
Requirements for Major in Forestry with Forest Resources Management Specialization	81
Forestry Core: FOR 100, FOR 201, FOR 202, FOR 285, FOR 308, FOR 310, FOR 314, FOR 325, FOR 331, FOR 351, FOR 352, FOR 381, FOR 411, FOR 430 ¹	41
CHEM 140A, Science Requirement: (one of the following) ZOOLOGY 115, ZOOLOGY 118, PLB 115, or PLB 200 ²	(6) + 1-2
ABE 204 or ECON 240 ³	(3)
ENGL 101, ENGL 102, (ABE 318 or FOR 312 or MATH 282 or PLB 360), CMST 101, (MATH 106 or MATH 108 or MATH 125) ⁴	(12) + 3-4
Summer Field Studies: FOR 450	4

Degree Requirements	Credit Hours
FOR 315, FOR 416	7
Forestry Electives (FE - Course Selection): BIOL 307, CSEM 468, FOR 125, FOR 210, FOR 220, FOR 230, FOR 302, FOR 305, FOR 312, FOR 350, FOR 375, FOR 390, FOR 402, FOR 403, FOR 404, FOR 405, FOR 409, FOR 415, FOR 418, FOR 420, FOR 421, FOR 423, FOR 425, FOR 428, FOR 429, FOR 431, FOR 451, FOR 452L, FOR 470, FOR 480, FOR 486, GEOG 401, GEOG 404, GEOG 406, GEOG 420, MGMT 350, PLB 300, PLB 451, ZOOL 118, ZOOL 410, ZOOL 468, ZOOL 469 ⁵	22-25
Total	120

¹ FOR 308 - Substitution of GEOG 401 or other equivalent GIS course may be allowed with approval.
FOR 352 - Substitution of CSEM 240 or other equivalent Soil Science course may be allowed with approval.

² Hours included in total for University Core Curriculum requirements.

³ Hours included in total for University Core Curriculum requirements.

⁴ Hours included in total for University Core Curriculum requirements

⁵ Minimum hours required to bring total hours to 120. No course may be used for more than one requirement. Only 6 hours of lower level coursework (100/200) may be used as FE.

Urban Forest Management Specialization

The specialization in Urban Forest Management provides students with interdisciplinary training in the management of forest resources in urban areas and other settings where aesthetics and enhancing environmental values of communities are of primary concern. The specialization includes areas of study recommended and accredited by the Society of American Foresters with additional course work providing a background in arboriculture, landscape management and design, small business management, and municipal government. Students are especially prepared for entry into careers in the green industry and municipal forest management and administration. Students in the specialization are required to participate in the forestry field studies course (FOR 450) to gain practical field experience. Costs per student for off-campus living expenses and transportation for summer field studies are not to exceed \$600 per student and must be borne by the student. Other costs for equipment and supplies, which are required for field study and certain other courses, are specified in course descriptions.

B.S. Forestry - Urban Forest Management Specialization Degree Requirements

Degree Requirements	Credit Hours
University Core Curriculum Requirements	39
Requirements for Major in Forestry with Urban Forest Management Specialization	81
Forestry Core: FOR 100, FOR 201, FOR 202, FOR 285, FOR 308, FOR 310, FOR 314, FOR 325, FOR 331, FOR 351, FOR 352, FOR 381, FOR 411, FOR 430 ¹	41

Degree Requirements	Credit Hours
CHEM 140A, Science Requirement: (one of the following) ZOOLOGY 115, ZOOLOGY 118, PLB 115, or PLB 200 ²	(6) + 1-2
ABE 204 or ECON 240 ³	(3)
ENGL 101, ENGL 102, CMST 101, MATH 106 or MATH 108 or MATH 125 ⁴	(12) - 1
FOR 312 or ABE 318 or MATH 282 or PLB 360	3
Summer Field Studies: FOR 450	4
(FOR 416 or FOR 421), FOR 428, HORT 328A, HORT 328B, and HORT 434	12-13
Forestry Electives (FE): CSEM 420, CSEM 447, CSEM 468, FOR 125, FOR 210, FOR 220, FOR 230, FOR 302, FOR 305, FOR 312, FOR 315, FOR 375, FOR 390, FOR 403, FOR 404, FOR 415, FOR 416, FOR 420, FOR 421, FOR 423, FOR 425, FOR 451, FOR 452L, FOR 480, FOR 486, GEOG 401, GEOG 404, GEOG 406, GEOG 420, HORT 322, HORT 327, HORT 422, HORT 428, HORT 429, HORT 475, MGMT 350 ⁵	16-20
Total	120

¹ FOR 308 - Substitution of GEOG 401 or other equivalent GIS course may be allowed with approval.
FOR 352 - Substitution of CSEM 240 or other equivalent Soil Science course may be allowed with approval.

² Hours included in total for University Core Curriculum requirements.

³ Hours included in total for University Core Curriculum requirements.

⁴ Hours included in total for University Core Curriculum requirements.

⁵ Minimum hours required to bring total to 120. No course may be used for more than one requirement.
Only 6 hours of lower level coursework (100/200) may be used as FE.

Wildlife Habitat Management and Conservation Specialization

The specialization in Wildlife Habitat Management and Conservation helps students develop knowledge and skills in integrated natural resource management with an emphasis on habitat management for wildlife. The goal of this specialization is to train individuals for wildlife and forestry-related careers in federal and state governmental agencies, non-governmental conservation organizations, and natural resource consulting firms. Students will also be well-prepared for entry into the profession of conservation police officer. In addition, this specialization readies students for graduate study in forestry and wildlife management. This specialization includes areas of study recommended and accredited by the Society of American Foresters. Students in the specialization are required to participate in the forestry field studies course (FOR 450) to gain practical field experience. Costs per student for off-campus living expenses and transportation are not to exceed \$600 per student and must be borne by the student. Other costs for equipment and supplies, which are required for field study and certain other courses, are specified in course descriptions.

B.S. Forestry - Wildlife Habitat Management and Conservation Specialization Degree Requirements

Degree Requirements	Credit Hours
University Core Curriculum Requirements	39
Requirements for Forestry Major with Wildlife Habitat Management and Conservation Specialization (WHMS)	81
Forestry Core: FOR 100, FOR 201, FOR 202, FOR 285, FOR 308, FOR 310, FOR 314, FOR 325, FOR 331, FOR 351, FOR 352, FOR 381, FOR 411, FOR 430 ¹	41
CHEM 140A; Science Requirements: (one of the following) PLB 115, PLB 200, ZOOL 115, or ZOOL 118 ²	(6) + 1-2
ABE 204 or ECON 240 ³	(3)
MATH 108, (FOR 312 or ABE 318 or MATH 282 or PLB 360)	(3) + 3
Summer Field Studies: FOR 450	4
FOR 305, FOR 315, FOR 405, FOR 416, FOR 451	17
Forestry Electives (FE): BIOL 211, BIOL 212, BIOL 307, FOR 125, FOR 210, FOR 220, FOR 230, FOR 302, FOR 305, FOR 312, FOR 375, FOR 390, FOR 402, FOR 403, FOR 404, FOR 415, FOR 420, FOR 421, FOR 425, FOR 428, FOR 429, FOR 431, FOR 452L, FOR 470, FOR 480, FOR 486, GEOG 404, GEOG 406, GEOG 420, MATH 109, MATH 111, PLB 300, ZOOL 410, ZOOL 461, ZOOL 467, ZOOL 468, ZOOL 469, ZOOL 478, ZOOL 490 ⁴	13-18
Total	120

¹ FOR 308 - Substitution of GEOG 401 or other equivalent GIS course may be allowed with approval.
FOR 352 - Substitution of CSEM 240 or other equivalent Soil Science course may be allowed with approval.

² Hours included in total for University Core Curriculum requirements.

³ Hours included in total for University Core Curriculum requirements.

⁴ Minimum hours required to bring total hours to 120. No course may be used for more than one requirement. Only 6 hours of lower level coursework (100/200) may be used as FE.

Undergraduate Certificate in Conservation Law Enforcement

The Conservation Law Enforcement Undergraduate Certificate is designed for students interested in the intersection of forestry, wildlife management, conservation, policing, and law. It is intended to

provide students with a broad knowledge base applicable for careers as conservation officers, wildlife/game wardens, park rangers, or other similar careers. The 42-credit certificate includes 12 credit hours of foundational skills, 6 credit hours of conservation law enforcement classes, 12 credit hours of Forestry classes, and 12 credit hours of Criminology and Criminal Justice classes. All coursework used to complete the certificate program may be counted toward a bachelor's degree in Forestry and/or a bachelor's degree in Criminology and Criminal Justice. A minimum of 24 credit hours toward the certificate must be earned at SIU Carbondale.

Conservation Law Enforcement Certificate Requirements

Degree Requirements	Credit Hours
Foundation Skills	12
ENGL 101, ENGL 102, UCC QUANTITATIVE REASONING MATH course (3), CMST 101	
Core Conservation Law Enforcement	6
FOR 280 or CCJ 280 and FOR 380 or CCJ 380	
Criminology and Criminal Justice (choose 12 credit hours from the list below):	12
CCJ 101, CCJ 302, CCJ 303, CCJ 306, CCJ 310, CCJ 320, CCJ 408, CCJ 410, CCJ 415	
Forestry	12
Choose 3 credit hours from the list below:	
FOR 100 and FOR 220, FOR 125, FOR 201	
Choose 9 credit hours from the list below:	
FOR 210, FOR 305, FOR 405 or FOR 451, FOR 480	
Total	42

Technology Fee

The College of Agricultural, Life, and Physical Sciences assesses undergraduate majors a technology fee of \$4.58 per credit hour up to 12 credit hours. The fee is charged Fall and Spring semesters.

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