

**University Council Recommendations
The University of Georgia**

RECEIVED
OFFICE OF THE PRESIDENT
2005 SEP 29 A 9:12

To: President Michael F. Adams
Re: DOCUMENT NUMBER: 2005.9.22.03
Issue: A proposal for an Undergraduate Certificate in Community Forestry.
Discussion: None
Action: The vote was called and the proposal was approved.

Submitted by: Rebecca L. Macon
Rebecca L. Macon, Secretary

9.28.05
Date

- Approved
- Reconsider
- Vetoed (see attached explanation)
- Received

M. F. Adams
Michael F. Adams, President

10/6/05
Date

Attachment



The University of Georgia

Daniel B. Warnell
School of Forest Resources
Office of the Associate Dean for Academic Affairs

June 27, 2005

University Curriculum Committee
C/o Curriculum Systems
Franklin House
The University of Georgia
Campus

Dear Committee Members:

Accompanying this letter is a proposal for an Undergraduate Interdisciplinary Certificate in Community Forestry. The proposal is joint venture between the Warnell School of Forest Resources, the College of Environment and Design, and the Horticulture Department of the College of Agriculture and Environmental Science.

The certificate may be taken by any University of Georgia undergraduate student, but it is designed specifically for students in the above-mentioned programs. The required number of hours (29-32) may seem excessive, but students in these programs will complete approximately half of the hours with their major course work. Thus, only 15-16 hours of elective credits are needed to satisfy the Certificate requirements.

Many universities around the county have majors in community forestry with enrollments of up to 100 students. At the University of Georgia, expertise in this field was spread among three units, so that an interdisciplinary certificate seemed most appropriate. As evidence of the interdisciplinary nature of the certificate, no student can complete it without having taken at least one course in each of the sponsoring colleges.

If you have further questions about the Certificate, please contact Drs. Larry Morris (Forest Resources), Kim Coder (Forest Resources), Scott Weinburg (Environment and Design) or Tim Smalley (Horticulture).

Sincerely yours,

Bruce C. Bongarten
Associate Dean and Professor

PROPOSAL
May 16, 2005

**Undergraduate Multidisciplinary
Certificate Program In**

Community Forestry

at the University of Georgia

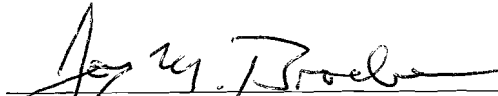
from

College of Agricultural & Environmental Sciences, Department of Horticulture

College of the Environment and Design


Daniel B. Warnell School of Forest Resources

Deans' Signatures




Josef B. Broder, Interim Dean
College of Agricultural and Environmental Sciences

6-21-05
date



John F. Crowley, III, Dean
College of the Environment and Design


6.22.05
date



Richard Porterfield, Dean
Daniel B. Warnell School of Forest Resources

6/27/05
date

Department Heads' Signature



Douglas Bailey, Head
Department of Horticulture

6/20/05
date

Contacts:

Kim Coder, Professor, Daniel B. Warnell School of Forest Resources

Tim Smalley, Associate Professor of Ornamental Horticulture, CAES

Scott Weinberg, Associate Dean, College of the Environment and Design

Needs Definition:

The Community Forestry Certificate Program prepares students for careers in commercial, utility, municipal, and consulting urban and community forestry and tree management. Community tree health care is critical to the quality of life, safety, and health of Georgia citizens. Community forest management is essential to communities of all sizes in order to minimize liabilities, manage assets, and guide the appreciation of these asset values. The program focuses on management of individual trees, groups of trees and forest stands growing in the urban and suburban areas including those that grow among urban hardscapes and infrastructures. The program incorporates information on soils, which sustain system health and productivity, biotic and abiotic factors affecting tree health, as well as the people that own, live among and are responsible for the long-term health and structure of these resources. This subject matter area is a professional specialty recognized and credentialed around the world. At the University of Georgia, three academic units share the major educational components, which comprise this area of study -- the College of Agricultural and Environmental Sciences Department of Horticulture, the College of the Environment and Design, and the Daniel B. Warnell School of Forest Resources.

Interdisciplinary Nature:

The Community Forestry Certificate Program is fully multidisciplinary with critical expertise divided among the participating majors. This Certificate depends upon the strengths of the participating majors with core courses within the College of Agricultural and Environmental Sciences Department of Horticulture, the College of the Environment and Design, and the Daniel B. Warnell School of Forest Resources. This Certificate is designed for students in the three participating majors, but does not exclude participation by students in other majors.

Certificants in the participating majors will normally have taken approximately one-half of the requirements for this Certificate as part of their majors. The other half of the Certificate requirements (~15-17 credits) can be taken as electives. Despite the large numbers of total hours in the Certificate, students in the three cooperating majors should graduate within the normal period of their academic programs. A unique feature of this Certificate is that no separate major is proposed. Instead three different academic units have come together to share expertise and enrich the student's experience. The highly interdisciplinary nature of this profession is well matched with the advantages of our existing programs, providing a discrete and valuable Certificate opportunity.

Certificate Requirements:

The Community Forestry Certificate Program provides a common curriculum to meet the needs of community forest managers. Courses included within the Community Forestry Certificate Program provide critical experiences and learning opportunities for students in a diverse group of subjects, all of which are essential for successful career placement, development, and advancement.

The Community Forestry Certificate is earned and awarded upon satisfactory completion of 17-20 credit hours of required courses (most within the student's major), and a minimum of 12

credit hours of approved elective courses used to better define a specialty within Community Forestry. A total of 29-32 semester credit hours are required for the Community Forestry Certificate. Students outside the three sponsoring academic units are eligible to earn the Certificate, but pursuing the certificate may extend their time at the University.

Required courses cover the following subject areas:

- Applied Ecology
- Landscape Horticulture
- Technical Arboriculture
- Tree Identification & Site Requirements
- Tree Pest Identification & Treatment
- Urban and Community Forest Management
- Urban Landscape Planning

Elective courses (no more than 7 credits in any one area) fall into five specialty areas of urban and community forestry and tree health care knowledge and practice. Elective courses include:

- Urban Trees and Sites
- Ecological Basis for Sustainable Systems
- Urban Landscape Planning & Design
- Human Dimensions
- Business Practice

Admission Requirements:

The program was designed specifically to interface with students having majors in the College of Agricultural and Environmental Sciences Department of Horticulture, the College of the Environment and Design, and the Daniel B. Warnell School of Forest Resources; however, the Community Forestry Certificate Program is open to all University of Georgia and University Center at Gwinnett students. To be eligible for admission to the Community Forestry Certificate Program, a student must:

- a) Be an undergraduate student in good standing of the University of Georgia in Athens or at the University Center at Gwinnett.
- b) Have completed two semesters (or equivalent) of full-time enrollment and is at least a rising sophomore.
- c) Be in good academic standing and have a cumulative grade point average of 2.5 on a 4-point scale.

Certification:

Students wishing to receive the Community Forestry Certificate will work with their academic advisor to develop a course schedule. Courses will be reviewed by the Director of the Certificate Program to ensure that required courses have been included in the program. After the Community Forestry Certificate Program is successfully completed, students or their advisors will notify the Certificate Program Director and a certificate is prepared. The Program Director will notify the Registrar of the University that the student has completed all requirements for the Community Forestry Certificate. The Certificate is signed by the student's advisor, the Director of the Community Forestry Certificate Program, the Provost of the University, and the President of the University. The awarding of the Certificate can be at a professional meeting or conference at the discretion of the academic advisor and the Director of the Community Forestry Certificate Program.

Undergraduate Certificate Program
In
Community Forestry

I. Basic Information

Institution:	University of Georgia
Schools / Colleges:	College of Agricultural and Environmental Sciences College of the Environment and Design Daniel B. Warnell School of Forest Resources
Departments :	Horticulture
Level:	Undergraduate
Proposed Starting Date:	Spring 2006

Abstract

Georgia is an urban / suburban state with an abundance of community and urban forest resources. Management of these resources requires specialized knowledge for successfully dealing with community forest and tree health, ecological constraints, psychological perceptions, and societal / cultural contexts. Professions working in these forests can come from many areas of study, but all must possess specific community forest management and tree health care knowledge.

A significant job pool is currently unfilled but available for entry into this natural resource management area in both the public and private sector. This need for both entry-level professionals and mid-level managers is expected to continue to strengthen. Students demonstrating a specialization can have greater access to entry level positions, are more likely to be invited to job search interviews, be recognized as having qualities and qualifications germane to the specific professional requirements of the job, and can initially advance more quickly than students in associated / related / general degree areas.

This proposal uses existing courses to develop a Community Forestry Certificate Program. No new courses, instructors, or facilities are required. The College of Agricultural and Environmental Sciences Department of Horticulture, the College of the Environment and Design, and the Daniel B. Warnell School of Forest Resources are the initiators and sponsors of this certificate program. They have worked together in creating an undergraduate program that utilizes existing resources and integrates faculty expertise across these academic units. It will provide students a level of professional expertise and knowledge, which is multidisciplinary in content and will lead to better cross-discipline communications.

Supporting Background

Demographics -- About 75% of the US population lives and works in urban / suburban counties. We are no longer a rural nation and have not been for more than four census cycles. Population changes continue to accelerate, taxing the environmental resources of the new spaces occupied (sprawl), and leading to ecological exhaustion of the available resources in spaces currently enclosed within urban / suburban areas. Professional urban and community forest resource managers are needed. Few universities offer specialization in this area.

Georgia is undergoing the same changes as the nation except at an accelerated pace. This trend in Georgia is shared by surrounding states and by all the Sunbelt states. Current population data on Georgia (July, 2002 – US Census Bureau) shows that of the estimated 8.6 million people in the State, about 6.6 million reside in urban / suburban areas. On a percentage basis, 77% of Georgia's citizens are in urban / suburban areas. Of the 6.6 million Georgian citizens in urban / suburban areas, approximately 4.5 million live in the Atlanta metropolitan area. They represent 52% of the states' overall population and 68% of all urban / suburban dwelling Georgia residents. The remaining urban/suburban citizens are primarily concentrated in the six next largest metropolitan areas (Augusta, Savannah, Columbus, Macon, Athens, & Albany) which represent about 22% of all Georgia's urban / suburban dwellers. In addition, about 10% of all urban / suburban dwellers live in the six emerging metropolitan areas in the state (Brunswick, Dalton, Hinesville, Rome, Valdosta, & the Chattanooga suburbs). All of these areas currently have, or are preparing, urban and community forestry programs.

Professional Careers -- Many types of careers require professional knowledge of the community forestry and tree health care subject areas. An evaluation conducted by The International Society of Arboriculture of its members examined how individuals developed careers in urban and community forestry and arboriculture. (Career Paths In Arboriculture, CD format, 2003, ISA, Champaign, IL.) They found that there are a number of entry points into the profession. The primary entry points into on-site resource management were in areas within the commercial arboriculture, municipal forest resources, and utility vegetation management sectors. Advanced placement out of a baccalaureate program was possible within the parks, arboretum, and botanical gardens career areas, and in the equipment manufacturing and sales areas, with undergraduate specialization in urban and community forest resources management and tree health care. Advanced education with an urban and community forest resources management and tree health care specialization allowed entry into middle management for government urban and community foresters, technical school instructors, and extension agents.

Entry points into the diverse area of professional urban and community forestry and tree health care have been filled primarily by people with training, certification and /or degrees in urban and community forest resources management, landscape architecture, arboriculture, regional planning, ornamental horticulture, nursery management, woody plant health care, botany, and outdoor recreation.

It should be noted that the term “forester,” “consulting arborist,” “Certified Arborist (CA),” and “arborist” are registered, licensed, or otherwise protected and regulated terms in different nations, states, or political jurisdictions. These professional terms denote graduates with particular skill sets and educational backgrounds. For example, under Georgia's registered forester regulations, a professional cannot use the term “community forester” unless they are a registered forester.

II. Responses to the Criteria for All Programs

Purpose and Educational Objectives

The establishment of the Community Forestry Certificate Program is intended to provide opportunities, incentives, support, and structure for students in urban and community natural resource management fields. The purpose is to broaden and strengthen a student's education and knowledge in the subjects comprising community forest resources and tree health care. Students in the three academic units -- the College of Agricultural and Environmental Sciences Department of Horticulture, the College of the Environment and Design, and the Daniel B. Warnell School of Forest Resources can improve their knowledge base, skills, and credentials for professional employment or graduate study. The Community Forestry Certificate Program will accelerate the development of a multidisciplinary team approach to community forestry activities required in the field. Enhancing multidisciplinary communications among a variety of future professionals is a critical benefit of this program.

There are approximately eight faculty members at the University of Georgia in various units, which teach, conduct research, and facilitate public service and outreach in the specialty of urban and community resource management and tree health care. These faculty members are identified in Appendix A. They represent a broad and diverse set of specialties, expertise and experiences. All combine to provide a unique and valuable knowledge base and set of professional contacts.

Program Need

The Community Forestry Certificate Program is needed because no single existing degree program covers the complexity and breadth of urban and community forestry and tree health care. Educational components necessary for effective professional development of students are scattered in subjects areas and disciplines housed in separate academic units .

The Community Forestry Certificate Program will provide students multidisciplinary coursework and information necessary for careers in urban and community forest resources management and tree health care. Courses currently available on Campus are listed in Appendix B. The Community Forestry Certificate Program will make our graduates more attractive to employers, improve our graduates on-the-job performance, provide graduates with a broader foundation for graduate study and professional credentialing, and enhance the perceived value of the UGA graduate which can influence recruiting students into programs and garner outside support.

There is an accelerating demand for, and recognition of, the importance of Community Forestry and tree health care programs. Faculty within the Community Forestry Certificate Program expect this area to remain viable and grow at a modest pace (Table 1)

Table 1: UGA Community Forestry Certificate Program time line data.

Date of program initiation:	Spring semester 2006
Date of full implementation:	Fall semester 2006
Expected date of first certificate conferred:	Spring semester 2007
Expected number of annual graduates:	12
Expected future enrollment trend:	6 per semester

Student Demand

Students taking courses currently taught in this area have been informally polled about their perceptions of the profession and the desirability of a multidisciplinary approach in instruction and specialization at the undergraduate level. Feedback has been highly positive regarding establishment of the Community Forestry Certificate Program. An outside advisory group composed of professionals in the community forest resources management and tree health care areas convened to request this certificate be created and quickly developed. A career development survey of entry into the profession showed strong values associated with a Community Forestry Certificate. Student demand should reach an equilibrium level within a few years of certificate establishment. We anticipate about 24 undergraduates in the program at any one time.

Curriculum

No new courses or sections will be developed for the program. The Community Forestry Certificate curriculum is based upon existing classes in the participating colleges, schools and departments. It will be earned and granted upon the successful completion of an undergraduate degree from the home academic unit.

The Community Forestry Certificate requires completion of 17-20 credit hours in specific courses (almost all already in the participating majors,) and a minimum of 12 credit hours of approved elective courses used to more fully develop a specialty within community forestry and tree health care. Total semester credit hours required for the Community Forestry Certificate is 29-32. Classes not on the approved elective list may be substituted upon approval by the Community Forestry Certificate Program Director. For example, a communication skills for natural resource professionals course could be inserted by the Director (Table 2).

The Community Forestry Certificate program is not expected to add additional hours to most students' undergraduate programs because many of the classes are either requirements or electives in the participating majors. Students from other academic programs that elect to earn the Certificate may require 1-2 additional semesters to fulfill Certificate requirements. The classes included under the Community Forestry Certificate have been selected to provide a broad base in applied urban ecology, landscape horticulture, tree identification and site requirements, technical arboriculture, tree pest identification and treatments, urban forest management, and urban landscape planning. The key value in this Certificate is its interdisciplinary nature with cross-academic unit enrichment.

Faculty Resources

Currently, eight faculty at the University of Georgia teach, conduct research, or translate research in the fields of community forest resources management and tree health care (Appendix A). This core group of UGA community forest resources management and tree health care faculty are dedicated to fostering teaching, research, and outreach collaborations. This core group of faculty desire to provide a better quality and practical undergraduate education for students, and promote continued professional development and cross-discipline enrichment for faculty. The culmination of this desire for improvement of undergraduate education in this area has initiated this proposal.

Library, Computer, & Instructional Resources Needed

No additional library, computer, or instructional resources are needed for this program because the curriculum is composed of existing classes taught on a regular basis. Over time, a modification of teaching, research, and service faculty allocations within the academic units may be needed as the program grows.

Physical Facilities Required

No additional physical facilities are needed for this program because the curriculum is composed of existing classes taught on a regular basis.

Instructional Expenses

Expenses include secretarial assistance to the Director, along with a small administrative / office budget for miscellaneous expenses, such as marketing materials for the program. The proposed budget is listed below in Table 3.

Commitments of Financial Support

The Dean of the Daniel B., Warnell School of Forest Resources will provide the budget necessary for implementation of this Certificate program.

Program Administration

The Community Forestry Certificate Program will be administered by a Director, with support from an advisory committee composed of community forestry and tree health care faculty and external professionals. The Director will have a biennial appointment. The Director will serve as the program advisor for students. The program will accept and maintain any interested student who is in good academic standing within their home academic unit. Students from outside the participating academic units may require extra semesters to fulfill Certificate requirements. The Certificate will be earned and granted to any student who successfully passes the required and elective courses outlined in this certificate, and successfully fulfills all the degree requirements of their major in their home academic unit.

Table 2: UGA Community Forestry Certificate Program Core Curriculum**Certificate Requirements – 17-20 semester credit hours ****

Applied Ecology	FORS 3020-3020L (4) or LAND 4360 (3)
Arboriculture / Landscape Maintenance	HORT 4090 (3)
Tree Identification & Site Requirements	FORS 3010-3010L (3) or HORT 3720 (4) or LAND 3410 (3)
Tree Pest Identification & Treatment	[PATH 3830-3830L (2) and ENTO 3820-3820L (3)] or ENTO(EHSC)(BIOL)(ECOL)(LAND) 3590-3590L (4) or PATH(ENTO) 4360/6360 (3) or ENTO(CRSS)(PATH) 4740/6740-4740L/6740L (3)
Urban Landscape Planning	LAND 3530 (2)
Urban Tree Management	FORS 5010/7010 (3)

Certificate Electives – minimum of 12 semester credit hours (no more than 7 semester credit hours from any one subject area.)

Trees and Soils	
Tree physiology/Tree health	FORS 3040 (2) or HORT(CRSS) 4440/6440-4440L/6440L (3)
Soil fertility	CRSS(HORT) 4590/6590 (3)
Soil conservation	CRSS 4580/6580-4580L/6580L (3)
Microclimatology	ENGR(GEOG) 4161/6161-4161L/6161L (4)
Ecological Basis for Sustainable Systems	
Ecosystem ecology	ECOL 4010/6010 (3)
Watershed hydrology	FORS 4110/6110-4110L/6110L (4)
Wetland delineation and function	FORS 4140-4140L (3)
Urban Landscape Planning & Design	
Residential design	HORT(LAND) 3450 (3)
Urban and regional planning	EDES 4650/6650 (3) or GEOG 4660/6660 (3)
Geographic information systems	FORS 3910-3910L (3) or GEOG 4370/6370-4370L/6370L (3)
Human Dimensions	
Public relations	ADPR 3850 (3)
Dispute resolution	EETH(JURI) 5870/7870 (2)
Park recreation	RLST (FORS) 3310 (3) or RLST (FORS)(ANTH) 5400/7400-5400L/7400L (3)
Public administration	PADP 4620 (3)
Humans and the environment	ANTH 3090 (3) or SOCI 3400 (3)
Business Practice	
Personnel management	no course yet identified
Marketing	AAEC 3040 (3) or FORS 5760/7760 (3)
Small business management	AAEC 3980 (3)
Landscape contracting and mgmt.	HORT 4091 (2) or LAND 4710/6710 (2)

** Note: The total credit hours in this Certificate (29-32 total hours) are split between courses already required by the participating majors and elective courses used for fulfilling Certificate Requirements. Additional hours needed for the Certificate by students in the three participating majors are only 15-16 hours.

Table 3: Proposed budget for UGA Community Forestry Certificate Program.

	FY1	FY2	FY3
Personnel	\$1000	\$1000	\$1000
Operating costs	\$1000	\$1000	\$1000
Capital outlays	\$0	\$0	\$0
Library acquisitions	\$0	\$0	\$0
Total	\$2000	\$2000	\$2000

Appendix A:

University of Georgia

Community Forestry Certificate Program

Faculty

Unit	Name (last, first)	Rank	Phone	E-mail
FORS	Coder, Kim	Professor	542-9050	kcoder@arches.uga.edu
	Morris, Larry	Professor	542-3293	lmorris@uga.edu
	Newman, David	Professor	542-7649	newman@forestry.uga.edu
HORT	Berle, David	Asst. Prof.	542-2471	dberle@uga.edu
	Smalley, Tim	Assoc. Prof.	542-2471	tsmalley@uga.edu
LAND	Ferguson, Bruce	Professor	542-0709	bfergus@uga.edu
	Lahaie, Brian	Assoc. Prof.	542-4716	blahaie@uga.edu
	Weinberg, Scott	Professor	542-4715	weinberg@uga.edu

Appendix B:

University of Georgia
Community Forestry Certificate Program

List of All Courses Mentioned In Text

Unit Number	Title	Hours
AAEC 3040	Agribusiness Marketing	3
AAEC 3980	Intro. to Agribusiness Management	3
ADPR 3850	Public Relations	3
ANTH 3090	Evolution of Human Ecosystems	3
CRSS 4580/6580-4580L/6580L	Soil Erosion and Conservation	3
CRSS(HORT) 4590/6590	Soil Fertility & Plant Nutrition	3
ECOL 4010/6010	Ecosystem Ecology	3
EDES 4650/6650	City Planning	3
EETH(JURI) 5870/7870	Environmental Dispute Resolution	2
ENGR(GEOG) 4161/6161 -4161L/6161L	Environmental Microclimatology	4
ENTO 3820-3820L	Forest Protection Entomology	3
ENTO(CRSS)(PATH) 4740 /6740-4740L/6740L	Integrated Pest Management	3
ENTO(BIOL)(ECOL) Urban Entomology (EHSC)(LAND) 3590-3590L		4
FORS 3010-3010L	Dendrology	3
FORS 3020-3020L	Ecology of Natural Resources	4
FORS 3040	Tree Physiology	2
FORS 3910-3910L	Spatial Information in Forest Resources	3
FORS 4110/6110-4110L /6110L	Forest Hydrology	4
FORS 4140-4140L	Introduction to Wetlands	3
FORS 5010/7010	Urban Tree Management	3
FORS 5760/7760	Forest Products Marketing	3
(FORS)(ANTH)RLST 5400 /7400-5400L/7400L	Parks & Ecotourism Management	3
GEOG 4370/6370- 4370L/6370L	Geographic Information Science	3
GEOG 4660/6660	Urban & Regional Development	3
HORT 3720	Woody Landscape Plant Identification & Use	4
HORT 4090	Landscape Horticulture	3
HORT 4091	Professional Landscape Practices	2
HORT(CRSS) 4440/6440 -4440L/6440L	Environmental Physiology	3
HORT (LAND) 3450	Residential Design	3
LAND 3410	Plants of the South	3
LAND 3530	Planning & Design	2
LAND 4360	Applied Landscape Ecology	3
LAND 4710/6710	Profession Practice	2
PADP 4620	Public Administration and Democracy	3
PATH 3830-3830L	Forest Pathology	2
PATH(ENTO) 4360/6360	Ornamental Pest Management	3
RLST(FORS) 3310	Outdoor Recreation & Environmental Awareness	3
SOCI 3400	Environmental Sociology	3