Date: June 27, 2013
Course Number: FTC 209
Course Title: Timber Harvesting

☐ New Course OR ☒ Changes in existing course (check all that apply):

☐ Prefix ☒ Description ☐ Shared Resources
☒ Number ☒ Pre-requisite(s) ☐ Course Format
☐ Credits ☒ Co-requisite(s) ☐ Content
☐ Title ☒ Semester Offered

For new courses only, indicate if you would like approval as a course meeting the General Education standards in the following knowledge and skills area (check all that apply):

☐ American History ☐ Humanities ☐ Other World Civilizations
☐ The Arts ☐ Mathematics ☐ Social Sciences
☐ Basic Communication ☐ Natural Sciences ☐ Western Civilization

If changing an existing course, describe the change(s):
Changing the course offering from the spring semester to the fall semester. Includes stronger emphasis on the application of best management practices while planning and implementing timber harvests.

List any pre- or co-requisites here: Co-requisite: FTC 204, Introduction to Natural Resources Measurements; FTC 207, Introduction to Forest Technology and Safety

Institutional Impact:

Anticipated Enrollment: 30-50 per semester

Technology and Classroom Resource Demands: Ranger School Campus Distance learning Main Classroom with various electronic presentation formats. Textbook/copied material readings. Videotapes/CDs/DVDs from various organizations to illustrate harvesting systems and methods.

Computing Resources: Ranger School computer lab, with GIS programming.

Library Resources: Pertinent Ranger School Campus magazines and/or texts that reinforce class topics.

Transportation Requirements: Use of various Ranger School wheeled vehicles to transport students and equipment to field exercises.

Forest Properties or Field Practicum Facilities Required: James F. Dubuar Memorial Forest
Proposer Contact Information:

Name: Michael R. Bridgen
Email: bridgen@esf.edu

Department: FNRM Ranger School
Phone: 315-848-2566

Chair/Coordinator Signature: ________________________________
Health and Safety Considerations:

Conditions or situations present in association with the course?  Yes / No

1. Will substances with any of the following properties be used during instruction: flammability, toxicity, corrosivity, reactivity, registered pesticide, legally controlled, or other characteristics with the potential to cause harm or injury?  Yes

2. Will any physical hazards be present during instruction? (e.g., machines that need safety guards; razor blades or syringes; compressed gases, etc.).  Yes

3. Will any biological hazards be present during instruction? (e.g., handling animals (rabies or hantavirus); cultures or stocks of infectious agents (fungal spores, viruses, bacteria, etc.).  No

4. Will any radiation hazards be present during instruction? (e.g., radioisotopes, X-rays, ultraviolet rays, lasers, etc.).  No

5. Will any electrical equipment that, due to its design, location, or method of use, pose any threat to safety during instruction? (Give considerable thought to electrical use outdoors, or any potentially wet location.).  No

6. Will there be any personal safety issues related to the class? (e.g., due to time of day or location, at the end of any organized class exercise, will students be in danger of physical assault, etc.).  Yes

7. Will any students be driving official state or research sponsored land or water vehicles during any class or instructional exercise?  Yes

8. Will any type of personal protective equipment be necessary during class exercises? (e.g., hard-hats, eye/face protection, hearing protection, hand/foot protection, lab coat, visibility clothing, etc.)  Yes

If the answer was “Yes” to any of the HEALTH AND SAFETY questions, please explain:

1-2. Students will be instructed in all the proper safety procedures and techniques for operating any power or motive machinery the course requires, such as chainsaws, brush saws, skidding equipment and portable sawmills.

6. This course involves outdoor, field-oriented lab exercises. Students will be instructed on safe walking techniques while travelling forest paths in different seasons.

7-8 Due to the potential for falling debris in forested settings, students will be required to wear orange hardhats that meet or exceed the ANZI Z89.1-1986, Class A and B standards. Due to uneven terrain encountered on the field laboratory sites, students will be required to wear boots that provide ankle support and protection. Due to the abrasiveness of low-level forest vegetation, students will be required to wear long pants during all field exercises. Because of the dispersed nature of the field activities, all faculty and staff will be required to carry two-way radios to maintain contact with the administrative site in the event of emergencies. During field exercises involving power or motive machinery, students will be required to wear proper field clothing and personal safety equipment, such as hardhats, safety glasses, chaps, or other approved cut resistant safety pats, hearing protection, logging boots, and gloves. Students will be instructed on how to wear this gear safely and maintain its efficacy.

A detailed course description must accompany the Course Proposal Form.
DETAILED COURSE DESCRIPTION

COURSE: FTC 209 – Timber Harvesting
2 Credit Hours – Fall Semester
18 Hours lecture
36 Hours Laboratory/Field Instruction
Prerequisite(s): none
Co-requisites: FTC 204 Introduction to Natural Resource Measurements,
FTC 207 Introduction to Forest Technology and Safety

SCOPE:

1. Level of Instruction:
a. FTC 209 is designed for sophomores. This course is required for all students seeking an A.A.S. degree in Forest Technology at the Ranger School (Wanakena Campus).

2. Relation to curriculum or to other ESF or Syracuse University courses:
a. The content of this course relates to FTC 207 Introduction to Forest Technology and Safety, as well as to general forestry and forest management courses. This course also supplements the information presented in FTC 211 Silviculture and FTC 221 Natural Resource Management.
b. Shared resource requirements: none, a graduate offering is not planned

STUDENT LEARNING OUTCOMES:

After completing this course the student should be able to:

1. Explain the relationship between timber harvesting and other forest uses.
2. Describe the basic principles and methods used in harvesting, with emphasis on operations in the northeast.
3. Identify on-the-ground problems and solutions in planning, organizing, and operating a logging job.
4. Develop a timber appraisal.
5. Discuss the importance of using best management practices while harvesting timber.

MAJOR CONCEPTS OR METHODOLOGIES:

This course is comprised of lectures, laboratories for discussion, demonstrations, and field experience. The harvesting is composed of timber felling and bucking into merchantable forest products, location of timber skid trails and forest roads, timber appraisal and sales, logging planning and organization, and timber contract administration, including best management practices.

CATALOG DESCRIPTION

FTC 209. Timber Harvesting (2)

Eighteen hours of lecture and thirty six hours of laboratory or field instruction. Student learns basic harvesting methods with northeastern United States emphasis and its relationship to other forest uses. Student understand the role of best management practices in timber harvesting. A technical competence in timber sale contract administration and basic timber appraisal is gained. Fall.

Co-requisite(s): FTC 204, FTC 207.
COURSE HISTORY:

Last approved: November 10, 2009

On 1/26/72 a new two-year curriculum in Forest Technology was approved by the College of Forestry faculty. F. Tech 209 was approved at that time as part of the package and was taught at the Wanakena Campus beginning in fall 1973. The F. Tech abbreviation was redesignated FTC in August 1973 as part of the computerization of the college records. Minor changes were made on 4/24/74. A revised description of FTC 209 was approved on 3/23/78. By faculty action on 4/20/78 this course was moved from fall to spring. Minor changes to the catalog description were approved in March 1989. The description was reviewed by the instructor in December 1989. Revisions were made to the project manual during 1998–99 by the instructor. Minor changes were made by the instructor from 1995 to 1999. The three courses were combined into a new 5-credit course as part of a new 48-credit hour Forest Technology program curriculum in January 2000. The above specified revisions reflecting new technologies/methodologies occurred in November 2009. The transportation and utilization elements of the original course were reconstructed into a two courses – FTC 228 *Timber Transportation and Utilization*, and FTC 215, *Timber Harvesting*. This present revision moves the course from the spring to the fall semester, and places greater emphasis on field application of best management practices. Revised Draft: January 4, 2013 (form in protected format: 6/27/133/18/13)