

FOREST MEASUREMENTS & MAPPING: FRSC 1140

DR WAID

Room 116, YOW Bldg. Phone: 391-4811

Office Hrs: Posted in Classroom & Office 116

PREREQUISITES / COREQUISITES: MATH 0097, 0099, or 1101

TEXTBOOK: None Required

MATERIALS: Calculator (No Cell phones) Clear plastic ruler (6", English / Metric)
T-square (24") Soft eraser
Triangle (30 - 60) Drafting tape
Semicircular protractor Engineer's scale
(6", 1/2° graduations) Pencils (2H)

GRADING:	2 Hourly Exams (20% @)	40%	<u>GRADE</u>	A	90 - 100%
	Final Exam (Cumulative)	30%		B	80 - 89%
	Field & Lecture Quizzes	20%		C	70 - 79%
	<u>Lab & Class Participation</u>	<u>10%</u>		D	60 - 69%
	Total	100%		F	< 60%

OJECTIVES: Upon completion of this course, the student should be competent in the following forestry, and wildlife management skills:

1. Determination of tree diameters using the D-tape, and the tree caliper.
2. Determination of tree heights using the clinometer.
3. Computation of cubic foot, cord, and board foot volumes of timber.
4. Conversion between timber weight and various volume units.
5. Determination of tree age using an increment borer.
6. Determination of stand density with the glass wedge prism.
7. Determination of paces per chain and number of feet per pace.
8. Use of the hand compass for orientation, plot location, and traversing.
9. Conversion among various units of distance and area measurement.
10. Determination of stand volume using strip, and line-plot cruising methods
11. Obtaining, reading, and interpreting the various types of maps used in forestry and wildlife management
12. Plotting surveyed lines using protractor and engineer 's scale
13. Locating land ownerships by the various land sub- divisions and referencing systems (Land Lot/Land District System; State Plane Coordinate System; UTM System; U.S Public Land Survey System)
14. Computing the area scale associated with any given linear scale
15. Computing acreage using the dot grid method, or formulas for regular geometric figures
16. Construction of high quality natural resource maps
17. Use of GPS in obtaining locations

Students enrolled in the Forestry, and Wildlife Technology Programs will be expected to demonstrate an understanding of subject matter requiring higher order processing skills. Examination questions may include essay, synthesis, analysis, and application; as well as completion, multiple choice, true-false, and matching. Computational skills and drawing or diagramming may also be required.