#### NRM 76 Course Outline as of Fall 2010

# **CATALOG INFORMATION**

Dept and Nbr: NRM 76 Title: FOREST PHOTO INTERP

Full Title: Use of Aerial Photos in Forestry

Last Reviewed: 2/22/1994

| Units   |      | Course Hours per Week |      | Nbr of Weeks | <b>Course Hours Total</b> |       |
|---------|------|-----------------------|------|--------------|---------------------------|-------|
| Maximum | 3.00 | Lecture Scheduled     | 2.00 | 17.5         | Lecture Scheduled         | 35.00 |
| Minimum | 3.00 | Lab Scheduled         | 3.00 | 10           | Lab Scheduled             | 52.50 |
|         |      | Contact DHR           | 0    |              | Contact DHR               | 0     |
|         |      | Contact Total         | 5.00 |              | Contact Total             | 87.50 |
|         |      | Non-contact DHR       | 0    |              | Non-contact DHR           | 0     |

Total Out of Class Hours: 70.00 Total Student Learning Hours: 157.50

Title 5 Category: AA Degree Applicable

Grading: Grade or P/NP

Repeatability: 00 - Two Repeats if Grade was D, F, NC, or NP

Also Listed As:

Formerly: FOR 76

### **Catalog Description:**

Use of aerial photographs in forestry, including photo scales, orientation of photographs, forest type maps and measurement of forest volumes.

# **Prerequisites/Corequisites:**

## **Recommended Preparation:**

Eligibility for ENGL 100 or ESL 100.

#### **Limits on Enrollment:**

### **Schedule of Classes Information:**

Description: Use of aerial photographs in forestry, including photo scales, orientation of photographs, forest type maps and measurement of forest volumes. (Grade or P/NP)

Prerequisites/Corequisites:

Recommended: Eligibility for ENGL 100 or ESL 100.

Limits on Enrollment:

**Transfer Credit:** 

Repeatability: Two Repeats if Grade was D, F, NC, or NP

# **ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:**

**AS Degree:** Effective: **Inactive:** Area CSU GE: **Transfer Area** Effective: **Inactive:** 

**Transfer Area IGETC:** Effective: **Inactive:** 

**CSU Transfer:** Effective: **Inactive:** 

**UC Transfer:** Effective: **Inactive:** 

CID:

## **Certificate/Major Applicable:**

Certificate Applicable Course

# **COURSE CONTENT**

# **Outcomes and Objectives:**

Student will:

- A. Be able to view the photos in 3D
- B. Be able to determine the scale of an aerial photo
- C. Be able to locate the student's position on an aerial photo
- D. Be able to calculate tree heights from aerial photo
- E. Be able to separate different tree species
- F. Be able to make a basic timber type map from aerial photos
- G. Be able to make a recreational inventory
- H. Understand the use of satellite photography for natural resources

# **Topics and Scope:**

- A. Aerial Photos
  - 1. Types
  - 2. Remote sensing
- B. Photogrammetry
  - 1. Scale
  - 2. Shadows
  - 3. Displacement
  - 4. Stereoscopy
- C. Mapping
  - 1. Planimetric
  - 2. Contours
- D. Photo Interpretation1. Principles and techniques
  - 2. Measurement of trees
  - 3. Estimates of diameters
  - 4. Use of photographs in controlling ground inventories

## **Assignment:**

There will be assignments from text reports and mathematics.

## Methods of Evaluation/Basis of Grade:

**Writing:** Assessment tools that demonstrate writing skills and/or require students to select, organize and explain ideas in writing.

Lab reports, Essay exams, COMPUTATIONAL SKILLS

Writing 20 - 20%

**Problem Solving:** Assessment tools, other than exams, that demonstrate competence in computational or non-computational problem solving skills.

Homework problems, Field work, Lab reports, Quizzes, Exams

Problem solving 30 - 30%

**Skill Demonstrations:** All skill-based and physical demonstrations used for assessment purposes including skill performance exams.

Class performances, Field work, Performance exams

Skill Demonstrations 30 - 30%

**Exams:** All forms of formal testing, other than skill performance exams.

True/false, Completion, COMPUTATIONAL SKILLS

Exams 20 - 20%

**Other:** Includes any assessment tools that do not logically fit into the above categories.

None

Other Category 0 - 0%

# **Representative Textbooks and Materials:**

"Interpretation of Aerial Photographs"; Thomas Avery