

FOR 236 : AERIAL PHOTO

Transcript title

Aerial Photo

Credits

3

Grade mode

Standard letter grades

Contact hours total

50

Lecture hours

20

Lab hours

30

Recommended preparation

[MTH 102](#) or a course from the foundational requirements math list and [FOR 230B](#).

Description

Covers practical use of aerial photographs including photo interpretation, navigation, scale, area and distance determination, corner search, basic type-mapping and GPS application. Second course in the sequence of [FOR 235](#), [FOR 236](#), and [FOR 237](#).

Learning outcomes

1. Determine the average representative fraction of a vertical air photo.
2. Demonstrate the mathematical relationships between lens focal length, camera altitude, ground elevation, photo distance, ground distance, representative fraction, and photo scale reciprocal.
3. Describe the characteristics of black and white, color, and infrared images using film and digital photography using spectral bands.
4. Explain aerial photo flight planning.
5. Determine the azimuth of air photo baselines and use to determine azimuths of flight lines and other lines on air photos.
6. Navigate using air photos.
7. Interpret features and land use patterns using air photos.
8. Utilize the vocabulary of air photo interpretation and photogrammetry.

Content outline

Light and the electromagnetic spectrum

Care and preparation of photo images

Stereo Vision

Basic photogrammetry

Photo scale

Cameras, lenses, film, and sensor plates

Photo interpretation and interpretation elements

Timber type mapping with insect and disease detection

Tools for measurements

Remote sensing spectral bands

Air photo mission planning

Height and depth measurements

Required materials

Magnifying glass, straight pins, ultrafine point marker, calculator, Rite in the Rain field book, boots, and field clothes.