

Sub

FORMAT 1

10. COMPLETE CATALOG DESCRIPTION including dept., number, title and credits (50 words or less, if possible):

**CE F656H, New Technology for Construction, 1 credit**

Students will learn the basic science of GIS and GPS, as well as their current application in construction, and be able to judge their applicability to construction projects within their specialty and geographic areas. Students will gain an overview of other new technology and be alert for beneficial applications of new technology as well as likely limitations. Students will practice making inquiries of vendors and users of new technology in order to make informed choices.

11. COURSE CLASSIFICATIONS: (undergraduate courses only. Use approved criteria found on Page 10 & 17 of the manual. If justification is needed, attach on separate sheet.)

H = Humanities

S = Social Sciences





## Syllabus

New Technology for Construction CE 656H 1 Credit

Prerequisites: None. Recommended: College degree in engineering or science or any college degree with construction experience

Meets in the UAF Center for Distance Education conference room, corner of University and Davis Rd. 3PM to 5:15 PM.

Instructor: Dr. Robert Perkins, PE, 253 Duckering, 474 7694 [robp@uaf.edu](mailto:robp@uaf.edu) Office Hours 9:30 to 12, Tues and Thurs or by appointment.

There is no required textbook. There will be paper handouts and/or electronic references. Students will be required to download course material from web.

### Goals, Description, and Schedule

Goat Students will learn the basic science of Geographic Information Systems (GIS) and Global Positioning Systems (GPS), as well as their current application in construction, and be able to judge their applicability to construction projects within their specialty and geographic areas. Students will gain an overview of other new technology and be alert for beneficial applications of new technology as well as likely limitations. Students will practice making inquiries of vendors and users of new technology in order to make informed choices.

### Description

Review of new technology for construction, both recent advances in current use in some locations, and incipient technology, some of which will come on line in the near future. Recent advances include GIS in data management, GIS and GPS in surveying and mapping, GPS and laser guided construction. Other topics may include:

- x Applications of (Intelligent Transportation Systems) ITS to workzones, such as cameras, sensors, input devices, automated data processing, and dynamic message signs (DMS),



