2017 Catalog Data: CEE 6900: Special Problems Credit 3. Investigation of a topic which is compatible with students’ prerequisites, interests, and abilities.

Required Textbook: None

Faculty Coordinator: L. K. Crouch, Professor of Materials in Civil Engineering

Prerequisites: Consent of instructor.

Goal: To learn to design Tennessee Department of Transportation concrete mixtures.

Course learning objectives:
1. To familiarize the student with design of TDOT Class D Portland cement concrete mixtures;
2. To familiarize the student with design of TDOT roller-compacted concrete mixtures;

Major Topics Covered:
1. Aggregate gradation and specific gravity for mixture design;
2. MS Excel spreadsheet use for mixture design;
3. Compliance with TDOT specifications;
4. Concrete mixture adjustment;
5. Mix design submittal;

Measurable outcomes:
Students will be expected to:
1. Be able to design TDOT Class D concrete mixtures;
2. Be able to design TDOT roller-compacted concrete mixtures;