

Department of Civil Engineering
Kansas State University
CE 777 : PORTLAND CEMENT CONCRETE PAVEMENTS

Hours 5:30 p.m. in Room Seaton 142

Instructor: Dr. Stefan Romanoschi

Office: 2112 Fiedler Hall – KSU, Manhattan, KS 66506

Office Hours: W 11:30_2:30 PM

Phone: (785) 532-1594 Fax: (785) 532-7717

E_mail: sromano@ksu.edu

CATALOG DESCRIPTION: **CE 777 Portland Cement Concrete Pavements.** (3). II. Portland cement concrete mix design and production. Paving operations. Saw and seal operations. Subgrade preparation. Base selection. Drainage selection, design and construction. Bonded and unbonded concrete overlays. Whitetopping and Ultra-Thin Whitetopping. Concrete pavement restoration; Quality Assurance and Quality Control in Concrete Pavement Construction. 3hrs. Rec. Prerequisite: CE 641 or equivalent.

BRIEF DESCRIPTION: More than 500,000 miles of the nation's roads and streets are Portland cement Concrete (PCC) pavements. These roads are essential to both the nation's economy and it's mobility. CE 777 is being offered to meet the needs of undergraduate students in civil engineering and the graduate students in the transportation/materials area. The course is designed to provide the students with knowledge related to the historical development, current practice and research in the area of concrete pavement design, construction, maintenance and rehabilitation. The class will consist of a three-hour lecture session per week. At least one field visit to a PCC pavement construction site and a PCC mix production plant will be organized. The class will be offered nationally through the Division of Continuing Education - KSU, under the Long-Distance Learning Program. The laboratory demonstrations will be included as a virtual laboratory.

TEXTBOOK: No text book is required for this class. Handouts will be provided to the students at the beginning of each lecture.

ADDITIONAL MATERIAL :

1. Notes form NHI Course No. 131033: Construction of PCC Pavements
2. Notes form NHI Course No. 131062: PCCP Evaluation and Rehabilitation
3. Notes form NHI Course No. 131060: Design details for High Performance PCC Pavements.
4. S. Kosmatha, B. Kerkhoff and W. Panarese. Design and Control of Concrete Mixtures, 14th Edition. Published by the Portland Cement Association (www.portcement.org)

EFFECTIVE DATE: Fall 2002

