

# Pavement Materials — Graduate Certificate

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This graduate certificate prepares individuals to advance an engineer's knowledge and skills in the rapidly changing field of pavement materials. Engineers in the pavement materials area are responsible for roadway design, construction, maintenance, and rehabilitation of pavements. Pavements, a primary component of transportation infrastructure, are engineered with a strong understanding of materials behavior, mechanistic principles, and construction details.

The certificate requires two required and two elective graduate courses (12 credit hours) from the following:

Required (6 hours)

CIVL 6820 Design and Production of Asphalt Paving Mixtures (3) (Required)

CIVL 7870 Advanced Characterization of Pavement Materials (3) (Required - prerequisite CIVL 6820)

Electives (6 hours)

CIVL 6810 Pavement Design (3)

CIVL 6830 Sustainable Transportation Infrastructure (3)

CIVL 7820 Advanced Pavement Design and Rehabilitation (3) (prerequisite CIVL 6810/6816)

CIVL 7840 Pavement Management and Rehabilitation (3)

CIVL 7860 Pavement Construction (3)

CIVL 6630 Advanced Concrete Materials (3)

CIVL 6970 Pavement Materials Special Topics (3, e.g, Asphalt Binders)

CIVL 7970 Special Topics in Pavement Materials (3)