

**College of Engineering
Proposed Catalog Changes
Effective Summer 2020**

Chemical and Materials Engineering

1. Reactivate the following course:

MSE 525 Electronic Materials

3 credits

Study of major chemical and physical principles affecting properties of solid-state engineering materials. Topics include bonding, carrier statistics, band-gap engineering, optical and transport properties, novel materials systems, characterization, magnetism, and comprehensive introduction to physics of solid-state devices.

Prereq: Materials Science Engineering graduate student or Permission.

Rationale: Reactivate existing course that was mistakenly inactivated even though it has been actively taught for several years now.

2. Reactivate and change the following course:

MSE 517 Reaction Kinetics

3 credits

Application of absolute reaction rate theory; time and temperature dependence; kinetics of gas-solid reactions; kinetics of solid-solid reactions; corrosion, diffusion, and recrystallization. ~~(Alt/years)~~

Prereq: Materials Science Engineering graduate student or Permission.

Rationale: Reactivate existing course that was mistakenly inactivated even though it has been actively taught for several years now.