

# CHEMICAL & MATERIALS ENGINEERING

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**Department Head:** Joseph H. Holles<sup>1</sup>

**Associate Department Head:** Martha C. Mitchell

**Professors** Holles<sup>1</sup>, Houston, Luo, Mitchell, **Associate Professors** Andersen, Brewer, Manz **Assistant Professors** Martinez-Monteagudo, Zhou **Emeritus Professors** Bhada, Ghassemi, Johnson, Patton, Rockstraw<sup>1</sup>

**Research Interests:**

*P.K. Andersen* (Ph.D., University of California, Berkeley) physicochemical hydrodynamics, nuclear chemical engineering, modeling and simulation, education and training; *C.E. Brewer* (Ph.D., Iowa State) biomass thermochemical processing, sustainable agriculture, biorenewable resources, brewery engineering; *J.H. Holles*<sup>1</sup> (Ph.D., Virginia) heterogeneous catalysis, structure/property relationships in catalysis, pseudomorphic overlayer bimetallic catalysts, research preparation for undergraduate and graduate students; *J. P. Houston* (Ph.D., Texas A&M) biomedical engineering, biophotonics, flow cytometry; *H. Luo* (Ph.D., Tulane) nanostructured materials, thin films, photovoltaics, batteries, electrocatalysts, photocatalysts; *T.A. Manz* (Ph.D., Purdue) quantum chemistry simulations of materials, catalysis, and space physics; *S. Martinez-Monteagudo* (Ph.D., University of Alberta, Canada) food engineering, valorization of byproduct streams, synthesis of sweeteners, and green extraction methods; *M.C. Mitchell* (Ph.D., Minnesota) computer modeling and simulation of molecular-level phenomena, thermodynamic characterization of aerospace fuels, statistical mechanics, engineering education, diversity and inclusion in STEM; *M. Zhou* (Ph.D., New Mexico State) hydrogen production, CO<sub>2</sub> reduction, fuel cell and solar cell.

<sup>1</sup> Registered Professional Engineer