

Chemical and Materials Engineering Graduate Program



Faculty and Research

R. Michael Banish; Ph.D., University of Utah
Associate Professor
Crystal growth, transport property measurements,
and characterization.

Ramón L. Cerro; Ph.D., UC Davis
Professor
Theoretical and experimental fluid mechanics and
physicochemical hydrodynamics.

Chien P. Chen; Ph.D., Michigan State
Professor and Chair
Lab-on-chip microfluidics, multiphase transport,
spray combustion, computational fluid dynamics,
turbulence modeling of chemically reacting flows
and aero-optics.

Krishnan K. Chittur; Ph.D., Rice University
Professor
Biomaterials, bioprocess monitoring, gene
expression bioinformatics, and FTIR/ATR.

James E. Smith Jr; Ph.D., South Carolina
Professor
Ceramic and metallic composites, catalysis and
reaction engineering, fiber optic chemical sensing,
combustion diagnostic of hypergolic fuels, and
hydrogen storage.

Rodrigo E. Teixeira; Ph.D., Stanford University
Research Assistant Professor
Biotechnology, biomass conversion to renewable energy
and materials, including process design, modeling,
monitoring and control.

Jeffrey J. Weimer; Ph.D., MIT
Associate Professor
Surface science and technology as applied to adhesion
phenomena, biocompatibility, corrosion, friction,
heterogeneous catalysis, sensors, and thin films.

The Department of Chemical & Materials Engineering offers an **M.S Degree in Engineering**. A **Ph.D. Degree** is offered as a Chemical Engineering **option to the Mechanical Engineering Ph.D. Degree** and through collaborative programs in **Materials Science or Biotechnology**.

Faculty in the department have a broad range of research interests. This breadth affords graduate students unique opportunities to be on the forefront of many emerging technologies, especially in **materials or biotechnology** related areas.

The location of the UAHuntsville campus provides a strong potential for chemical engineering graduate students to apply their research to real-world problems. The campus sits near the **NASA Marshall**

Space Flight Center and Redstone Arsenal. It is also in proximity to over **200 high-technology industries** that support the corresponding aerospace, weapons systems, and biotechnology demands of these agencies. The campus is also near many chemical production plants, such as for fibers, catalysts, and polymers.



Chemical and Materials Engineering
130 Engineering Building
Huntsville, Alabama 35899
Ph: 256-824-6810 Fax: 256-824-6839
<http://www.uah.edu>
<http://www.che.uah.edu>



THE UNIVERSITY OF ALABAMA IN HUNTSVILLE								
School of Graduate Studies								
PROGRAM OF STUDY FOR MASTER'S DEGREE								
Name:							A#	
Address:							Phone:	
Department/Program	CHEMICAL AND MATERIALS ENGINEERING						Degree:	MSE
	<input type="checkbox"/>	Thesis	<input type="checkbox"/>	Non-Thesis				
UAH Course #	Title of course	Credit Hours	Grade	Term	Name of Institution if transfer course request*; remarks;		Transfer Course #	
Required Courses								
Chemical Engineering - 12 hours								
CHE 641	Advanced Thermodynamics	3		Fall	Year 1			
CHE 648	Transport Phenomena I	3		Fall	Year 1			
CHE 649	Transport Phenomena II	3		Spring	Year 1			
CHE 658	Chemical Catalysis	3		Fall	Year 2			
Mechanical Engineering - 6 hours								
MAE 692	Graduate Engineering Analysis I	3		Fall	Year 1			
MAE 693	Graduate Engineering Analysis II	3		Spring	Year 1			
Electives - 6 hours								
	Elective	3		Spring	Year 1			
	Elective	3		Fall	Year 2			
Thesis Courses (if applicable) - 9 hours								
CHE 699	Master's Thesis	3		Fall	Year 2			
CHE 699	Master's Thesis	6		Spring	Year 2			
ESL Courses (if applicable)								

*Copy of transcript must accompany transfer request