ORGANIC CHEMISTRY

Dr. William Donaldson
TW 654, 288-7374, William.Donaldson@mu.edu
Prerequisites: Chem 2111/2113 or 2112/2114
Research Interests: Organic chemistry; Use of organo–iron complexes in the synthesis of natural products

Dr. Rajendra Rathore
TW 638, 288-3535, Rajendra.Rathore@mu.edu
Research Interests: Organic supramolecular chemistry; Preparation of electroactive organic materials for molecular devices, sensors, switches, etc.
Specific projects:
1. Synthesis of molecular wires
2. Development of organic sensors for nitric oxide
3. Preparation of electroactive organic bowls and tubes
4. Synthesis of organic macromolecules containing multiple redox–active chromophores

Dr. Daniel Sem
TW652, 288-7859, Daniel.Sem@mu.edu
Prerequisites: Chem2111/2112 or 2113/2114
Research Interests: Medical and biochemical methods development, with applications in proteomics.
Focus Areas: NMR spectroscopy, enzymology, fluorescence, cheminformatics, combinatorial and medicinal chemistry.

Dr. Mark Steinmetz
TW 633, 288-3535, Mark.Steinmetz@mu.edu
Prerequisites: Chem2111/2112 or 2113/2114
Research Interests: Photocleavable protecting groups
Specific projects:
1. Synthesis and photochemistry of photocleavable amides
2. Synthesis and photochemistry of photocleavable oximates
3. Synthesis and photochemistry of photocleavable heterocycles

INORGANIC CHEMISTRY

Dr. James R. Gardinier
TW617, 288-3533, James.Gardinier@marquette.edu
Prerequisites: Chem2111/2113
Research Interests:
Supramolecular Inorganic Chemistry; Chemical synthesis (Organic, Organometallic, Inorganic); New Boron Reagents for Technological Applications
Specific projects: 1. Self-Assembled Platinum Nanowires.
2. Magnetic and Luminescent Organic-Metalorganic Hybrid Semiconducting Materials.
3. Chemical Approaches to Borophenes, Borphyrins and other Oligomeric Boron Compounds.

Dr. Chae Yi
TW 619, 288-3536, Chae.Yi@mu.edu
Prerequisites: Chem2111/2113
Research Interests: Homogeneous catalysis; Organometallic chemistry
Specific projects: 1. Ruthenium catalyzed coupling reactions of alkenes and alkynes.
2. Synthesis and catalytic reactions of ruthenium-oxo complexes.

ANALYTICAL CHEMISTRY

Dr. James Kincaid
TW520, 288-3539, james.kincaid@mu.edu
Prerequisites:

Dr. Michael D. Ryan, Department Chair
TW517/101B, 288-1625, Michael.ryan@mu.edu
Prerequisites: CHEM2210
Research Interests: 1. Combining electrochemistry with spectroscopy specific projects: synthesis of Mo/Fe/S complexes.
2. Spectroelectrochemistry of Iron Porphine complexes.

Dr. Chieu Tran
TW509, 288-5428, chieu.tran@mu.edu
Prerequisites:

PHYSICAL CHEMISTRY

Dr. Dmitri Babikov
TW511, 288-3538, Dmitri.Babikov@mu.edu
Prerequisites: Chem4431 or 4433
Research Interests: Theoretical and Computational Chemistry
Specific projects: 1. Quantum control of molecular vibrations
2. Quantum descriptions of chemical reactions.

Dr. Jeanne Hossenlopp (Interim Dean)
TW 508, 288-3537, Jeanne.Hossenlopp@mu.edu
Prerequisites: Interest in chemistry
Research Interests: Materials science, chemical sensor development, design of fire retardant additives.
Specific projects: 1. Synthesis and characterization of nanodimensional layered metal hydroxide compounds.
2.Kinetics of anion exchange reactions
3.Gas sensor testing
4. Thermal degradation of polymers with metal hydroxide additives.

Dr. Scott Reid
TW 518, 288-7565, Scott.Reid@mu.edu
Prerequisites: Enthusiasm and interest
Research Interests: Laser spectroscopy of transient molecules and free radicals; development of coherent laser spectroscopies; thin film deposition via pulsed lasers; mass spectrometry.
Specific projects: 1. Laser spectroscopy of carbenes
2. Laser deposition of thin metal oxide films
3. Spectroscopy and photochemistry of alkoxy radicals.