# **Honors 2016**

Requirements for Honors in Chemistry include a program of research with readings from the original literature, honors thesis, typically about 60 pages in length, and the satisfactory completion of a comprehensive oral exam area of the research.

## Isaac Alty

Hydrogen-Bonding Control of Solvatochromism and Non-Radiative Decay in the Fluorescence of 3-A Derivatives

#### Mark Broderick

Oligomers and Polymers of Copper(I) with Dicyanobenzene and Cyanopyridine Ligands

## Josiah Hammack

Synthesis and Characterization of Interpenetrating Polymer Networks for Applications in Extraterrestri Shielding

## Carolyn Hartley

Iron Complexes for Photocatalytic Hydrogen Generation

#### Zachariah Hasan

Fragmentation Studies of Lysine and Lysine Analog Containing Tetrapeptides

# Taylor Jacobs

Investigation of Unnatural Amino Acids as a Means to Modulate Protein Function

#### Anton Lachowicz

An Experimental and Theoretical Study of Proton Affinity in Proline-Containing Dipeptides: Exploring Effect"

#### Frances Morin

Studies of the Development of Intermolecular Networks During the Curing of Coatings Using Single-s Magnetic Resonance

#### Matthew Nelli

Total Synthesis of Peramine, a Defensive Alkaloid Produced by Endophytic Fungi of Cool Season Gra Anti-Insect Properties

#### Marshall Padilla

Utilizing Synthetic Tools to Address Biological Issues

### Jacob Robins

Construction of Bicyclo[2.2.2]diazaoctane Alkaloids via Intermolecular [4+2] Cycloadditions

#### Hannah Smith

Peptide Fragmentation Studies on Doubly Charged Proline and Pipecolic Acid Containing Pentapeptide Development for an HPLC/MS Instrument for Proteomics Experiments

#### Patrick Smith

The Effect of Ethanol, Methanol, and Water on the Hydrolytic Degradation of Polyamide 11

# Christina Stephens

Creating a Computational Model of Prion Disease in the Human Neocortex

## Jenna Tan

Probing Single-Molecule Photophysics of Rhodamines on TiO<sub>2</sub>

#### Jill Williamson

Domino Reactions Involving Merged Cycloaddition and Cycloreversion Processes Affording Pyridine