College of Liberal Arts and Sciences

Faculty Research Colloquium

17 September 2021

Via Zoom

Presentations begin at 3:00pm.

**Dominic P. Nanni** (Writing) “Rhetoric and the Practice of Liberal Education”

Rhetoric was once the focal point of a liberal education, providing the necessary instruction of teaching students how to communicate effectively as citizens in a democratic society. This talk considers the relationship between rhetoric and philosophy, a debate which first occurs in the drama of the Platonic dialogues, as informing how we look at rhetoric as part of a liberal education.

**Pei-Lan Tsou** (Cell and Molecular Biology) "Detection of SARS-CoV2 via Digital Droplet PCR in Wastewater"

SARS-CoV-2, the virus that is causing is the COVID-19 pandemic is an RNA-enveloped virus. The most common clinical presentations of COVID-19 include fever and pulmonary clinical manifestations such as cough, shortness of breath and sputum production. In more serious cases, it can cause acute respiratory failure and death. SARS-CoV-2 can be detected not only in the respiratory tract but also in feces. Studies show that individuals start shedding viral particles in feces before the onset of symptoms. Moreover, studies show that more than half of the patients remained positive for viral RNA in the feces after the pharyngeal swabs turned negative. The MDHHS/ MDEGLE SARS-CoV-2 wastewater surveillance project organized multiple institutions across Michigan, from colleges to health departments, to more rapidly detect the circulation of the SARS-CoV-2 virus within different communities. Wastewater samples were collected from different locations to test for SARS-Co-2 in the wastewater. Viral RNA was detected using digital droplet PCR, or ddPCR using primers and probes generated from viral RNA. We compared our results with those from clinical tests, where available, and found broad agreement between these two testing methods. Currently, with the Delta variant spreading in our community, we are seeing a surge in viral counts in the wastewater from wastewater plants. Future directions could include adapting this protocol for early detection of new variants and other infectious diseases.

Future colloquia are scheduled for:

Friday, Oct 15

Friday, Nov 19

Thursday, Jan 20

Thursday, Feb 17

Thursday, March 17

If you would like to give a presentation at one of the colloquia in the winter semester, please send an email to stavesm@gvsu.edu with preferred dates and a tentative title for your presentation.