

2019 Soft Matter REU Colloquia Series
Tuesday, June 11, 11:30am, SR 158



**Fabricating Shape-morphing Polymers
through Compounding and Processing**

**Dr. Kevin Cavicchi, University of Akron, Department of
Polymer Engineering**

The ability to program shape-changes into materials, such as shape memory and actuation, is of significant interest for remotely deployable devices and sensors. This talk will discuss how advanced materials can be fabricated from commodity polymers. In the first example it will be shown that molecular crystals are useful as active fillers that impart stimuli-responsive shape-changes triggered by their phase transition. In the second example, it will be shown that precise thermo-mechanical processing of nanostructured thermoplastic elastomers produces metastable morphologies, which convert the TPE into a shape memory polymer.

Schedule (Tuesday, June 11, 2019)

9:30 – Arrive on campus, meet with Kiril or Jessica TBD

9:45 – Speak with _____ and tour of the physics department

10:30 – Speak with _____

11:00 – Seminar Prep

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12:30 – Lunch with students

1:00 – Speak with _____ and tour of Chemical Engineering department

1:45 – Speak with _____

Must leave by 4:30pm