

# The Process Standards in Calculus: Reflecting on Affordances

Dr. Andrew Hoffman

**STEM Teach IV Huntington University Summer 2020**

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**Facilitator:** Dr. Andrew Hoffman, Phone: (260) 359-4208, Email: ajhoffman@huntington.edu

**Date and Time:** July 28th and July 29th, 9:00 AM to 12:00 PM each day

**Location:** Delivered virtually through Zoom

**Required Materials:** It is advised you use a computer to access the workshop, but a mobile device can work, too.

## **Brief Description:**

The workshop will explore the beginning calculus curriculum (limits through basic integrals) using the eight Indiana Process Standards as a lens to analyze associated tasks. Two contrasting ways to address a variety of topics will be presented: a way that minimizes the process standards and a way that promotes them. Participants will engage with the topics and the process standards as they put themselves in students' roles. Freely-available technology such as GeoGebra will be frequently utilized.

## **Tentative Workshop Outline:**

Each of the eight process standards will be examined in turn, four on each day. For each standard, we will (a) begin with an overview of the standard, (b) introduce a topic from beginning calculus curriculum, (c) explain how the topic could be covered in a way that would minimize opportunities for students to engage with the process standards, and then (d) let participants engage with a way to teach the topic that would emphasize the process standards.

## **About the Instructor:**

Dr. Andrew Hoffman is a Mathematics Professor at Huntington University where he teaches a variety of mathematics courses including calculus, statistics, and courses for future teachers. Before coming to Huntington, he was at Purdue University, where he earned his PhD in Mathematics Education. In addition to preparing future teachers at Purdue and Huntington, he worked with teachers in Frankfort, IN over four summers to invigorate their algebra teaching. His passion is deepening teachers' understanding of mathematics.