



## Undergraduate Research Opportunity in Fluvial Geomorphology

Field studies to examine interactions in stream channel morphology, large in-stream wood, and sediment dynamics in Rathburn Run, a tributary to Little Killbuck Creek that drains a forested watershed in Wooster Memorial Park.

### Project Description

Field observations indicate that the portion of Rathburn Run, flowing through the gorge section in Wooster Memorial Park, in Wooster, OH has experienced rapid channel change over the last several years. Observations include substantial bank erosion and stream bed incision to bedrock, coupled with channel migration associated with large in-stream wood recruitment. The purpose of this project is to quantify rates of channel change and place this geomorphic behavior within a context of broader environmental change, in particular, historical and contemporary changes in land use and climate patterns.

In a landscape, where most stream channels are highly altered and modified from agricultural and urban land use, this is a rare opportunity to evaluate geomorphic processes in a natural and intact system and a beautiful field setting. In addition, you will gain experience in classic geomorphic and hydrologic field measurement protocols.



Rathburn Run, Wooster Memorial Park

### Timeline

This project is well scoped for an undergraduate Independent Study or Honors Project. Project development and study design will occur during Spring 2014 (potentially Fall 2013 depending on individual student timeline). Associated field work will occur during Summer 2014. Project analysis and synthesis in a document that follows a peer-reviewed journal article format will occur during academic year 2014-2015.

If interested, please send an email to Dr. Kris Jaeger, Assistant Professor, School of Environment and Natural Resources, Ohio State University (jaeger.48@osu.edu). In your email, include a written statement that describes your interest in the project and details previous field experience or academic courses related to this project.

To learn more about Dr. Jaeger's research please visit,  
<http://go.osu.edu/KrisJaeger>