

## List of Advanced Environmental Seminar Research Projects

### Year Instructors

#### 1997 Hansen/Murray/Peaslee/Peterson

- *Correlations of Land Use to Nitrate Concentrations and Algal Biomass in Selected Sub-Watersheds of Lake Macatawa, Ottawa County, Michigan*  
Kate Horjus, Andrew Wyatt, Jessica Black, Shawna Hendrickson
- *An Analysis of Turbidity and Phytoplankton in Selected Stream Basins of the Lake Macatawa Watershed.* Adriana Crain, Jeanine Roberts, Ron Haveman, Kim Lake

#### 1998 Murray/Peaslee/Peterson

- *Effectiveness of Retention Basins within the Macatawa Watershed*  
Cindy Bannink, Matt DeBoer, Melissa Powell
- *Preliminary Toxicological Testing of Lake Macatawa Bottom Sediment Holland, MI*  
Eric Hiemstra, Kevin Menken, Travis Williams
- *Microbial Abundance and Sediment Composition of Urban and Agricultural Land Uses in the Lake Macatawa Watershed, Allegan and Ottawa Counties, Michigan.*  
Jon Brickner, Aaron Jubar, Holly Van Dam, Bethany Wezeman

#### 1999 Bodenbender/Evans/Peaslee/Peterson

- *The Concentration of E. Coli as a Fecal Coliform vs. the Concentration of Nitrates and Phosphates in Pine Creek*  
Brad Peuler, Casey Porter, Dave Powers
- *The Effectiveness of Buffer Strips: Optimum Width versus Economic Cost*  
Heather Roy, Junu Shrestha, Dan Wilkens
- *The Effect of Nitrates on the Changing Environment in the Lake Macatawa Watershed*  
Chris Cappa, Nate Whitmyer, Colleen Iversen

#### 2000 Bodenbender/Evans

- *Phytoremediation of Phosphates and Nitrates in the Lake Macatawa Watershed Using Wetland Plants*  
Nathan Ide, Aaron Petersen, Steve Rypma
- *KHI: An Analysis of the Impact on the Environment from its Operation by Trace Elements and General Groundwater Chemistry*  
Abraham Northrup, Jennifer Strehle, Yasemin Tulu
- *Determination of the Extent and Sources of Fecal Contamination in the Pine Creek Watershed Through Indicator Bacteria Analysis*  
Kristin Brondyke, Carrie Lowe, David Nash, Martin Van Oort

#### 2001 Bodenbender/Evans/Peterson

- *How do Passing Trains Affect the Noise Level Profile in the Hope College Vicinity?*  
Jacob Cain, Brian Flickinger, Laurie Beth Nederveld, Sara Maile
- *Assessing the Presence of Antibiotic Resistance of Bacteria in Surface Waters in Two Farm Areas*  
Spencer Bacon, Adrienne Hull, Erin Wysocki

#### 2002

not offered

**2003**

not offered

**2004 Evans/Peterson**

- *Environmentally Driven: The Relationship Between Actual Speed and the Posted Speed Limit, Ambient Light and Traffic Density*  
Christopher Avery, Jennifer Bassman, Sara Wade
- *Copper, Lead, Zinc and Phosphorus in Smalenburg Park Rain Gardens*  
Heather Mentzer, Emily Schmidt

**2005 Evans/Peaslee**

- *Examining No Till vs. Till Methods in the Lake Macatawa Watershed*  
Natalie Hoogeveen, Laura Thomas, Kristen McPhee
- *Composition and Effectiveness of Filtration in Natural and Mitigated Wetlands in the Macatawa Watershed*  
Emily Timmons, Kyle Williams

**2006 Peaslee/Sullivan**

- *Why is the Black River Black?*  
Amanda Brisbin, Eric Johnson
- *Tannin Leaching in the Macatawa Watershed*  
Karl Buter, Elliott Eisaman, Josh Frushour
- *Copper-Washed Soil Toxicity and the Aquatic Arthropod *Daphnia magna*: Effects of Copper Sulfate Treatments*  
Amanda Bylsma, Teri O'Meara

**2007 Bodenbender**

- *The Effectiveness of the Upper Macatawa Area Restoration*  
Trevor Daly, Tyler Depke, Stephen Pels, Meredith Praamsma

**2008 Peaslee/Sullivan**

- *Quantitative Analysis of the Relationship Between Riparian Buffer Widths and Suspended Stream Sediments* Chelsea Lynes, Andrew VanderYacht
- *Shuttle Bus vs. Shuttle Van: A Cost-benefit Analysis of Hope College Transportation*  
David Fraker, Jeffrey Mastin, Colleen McKinnie
- *The Relationship Between Stream Bank Erosion, Vegetative Cover and Soil Types*  
Joel Evenhouse, Edward Helderop, Allison Rogowski
- *Fueling the Debate: Exploring the Feasibility of Algae as a Biofuel in Holland*  
Sarah Brokus, Derek Duncan, Morgan Willming

**2009 Peaslee**

- *Turbidity as a Limiting Factor to Algae Growth in the Macatawa Watershed*  
Rachel Burkhart, Wyatt Curry, and Peter Van Heest
- *Detection of Trace Volatile Organics in Small Roadway Bodies of Water in the Lake Macatawa Watershed* Megan Haserodt and Drew Shaw

**2010 Peaslee**

- *A Recycling Initiative at Hope College*  
Jonathan Brooks, Adam Holman and Kathrin Nuetzmann
- *Identifying Sources of Fecal Coliform in Lake Macatawa via Antibiotic Resistance Analysis*  
Evan Arendsen, Ali English, Keri Smith
- *Carcinogens with Lake Macatawa*  
Dan Anderson, Kyle Arndt, Calab Nyboer

**2011 Peaslee and Peterson**

- *Analysis of Green Roof Runoff*  
Nate Erber, Jillian Farkas, Elizabeth Heinz and Ingrid Slette
- *Evaluation of Elemental Analytes in Street Sweeper and Catch Basin Sediment in Holland, MI*  
Dean Hazle, Sioned Sitkiewicz and Rachel Medina