

**Department of Applied Mathematics and Statistics**  
**COLORADO SCHOOL OF MINES**  
MATH484: Capstone - Mathematical and Computational Modeling

**Final Project Groups and Topics**

**Undergraduate Projects**

- Paul Diaz, Eric Jones, Kelsey Kalmbach, & Chelsea Sandridge - Spatial Spread of Ebola in West Africa
- Nathaniel Keller & Matt Childers - Patterns in Sand and Dune Formations
- James Brown - Traffic Modeling
- April Snively & Thomas Luckett - Climate Change and Glacial Thickness
- Dustin Burchett & Alyssa Mandarin - Underwater Acoustic Waves
- Corey Boettiger & Brian Greg - The Noble Model of the Heart's Pacemaker
- Shawn Johnson & Ben Sattelberg - Diffie-Hellman & AES Encryption
- Sarah Verros - Seismic Wave Propagation
- Kerrek Stinson - Kortweg-de Vries equation
- Nhat Thanh Tran, Jeffrey Young, & Tyler Bank - Formation of ripples due to fluid flow
- Jacob Vigil - Epidemiology of HEV using SEIR

**Graduate Projects**

- Andrew Glaws - Differential Game Theory & Pedestrian Traffic
- Holy Wenham - Growth & development of skin cancer