SESEY 2014 Projects

Faculty	Mentor(s)	Project Title	Student
Materials/EnvE/ChE	Claire Rodman	Haiti Project: Recycled Plastic Waste as Building Materials in Third-World Countries	Anna Tang and Alfondo Moreno
Materials/EnvE/ChE	Kayla Crossan, Michaela Mockler-Martens (Isaiah Garner)	CSI Plastics: Solving a murder mystery!	Raquel Paz and Chase Jacob
Materials/BioE/ChE	Amanda Reiter and Emma Molitor	Hydrogels and Composite Materials for Spinal Disc Replacement	Maribelle Stanley, Morgan Nelson, Heather Bemis
Materials/BioE/ChE	Helen Ann Haun and Justine Fiest	Rheological Properties of Synovial Fluid	Alexa Kerpich and Mari Domingo
Materials/BioE/ChE	Nikki Meads and Kylee Mockler-Martens	Rheology of Household Items	Katie Diekma and Jillian Nordness
Materials/BioE/ChE	Curran Gahan	3-D Printing	
Dr. Christine Kelly (ChE/Biological)	**Curtis Lajoie**		
Bioprocess ChE/BioE	Xuwen Xiang and Bryan Kirby	Algal Cultivation for the assesment of lipids and anaerobic digestion studies	Yosmely Miranda, Chloe Curtis, Amanda Tupper
Bioprocess ChE/BioE	Alexa Ruiz	Microfiltration - removal of cells from a bioreactor stream	Max Ware
Bioprocess ChE/BioE	Jakob Townsend	Pichia Pastoris Growth Kinetics	Luke Deuchars and Libby Paternoster
EnvE	Jimmy Beaty	Effectiveness of Wetlands as a natural water filtration System	Melissa Tensa, Anusha Gopal, Cate Lynn Ashford, Robert Quinton-Cox
Dr. Greg Herman (ChE/ECE)	Gustavo Albuquerque, Derek Wong	Microwave-assisted Synthesis of CPO-27-Ni	Sergio Sanchez and Kori Hansen
Dr. Alex Yokochi (ChE/ECE)	Emily Limon and Jacob Tenhoff	Validation of Reaction Kinetics in a Stirred Tank Reactor	Sean Foster and Abby McManus
Semprini/Azizian (EnvE)	Jenny Green and Stephanie Rich	Using Anaerobic Microorganisms to Detoxify Groundwater Contaminants	Scout Osborne and Haruka Tomishima
Semprini/Azizian (EnvE)	Dr. Anne Taylor, Paige Molzahn, Monique LaJeunesse	Microbes Turning Natutral Gas into Liquid Biofuels	Olivia Ramirez and Isa Serbegovic
Dr. Tyler Radniecki (EnvE)	Logan Smesrud	Assessing the risk of spreading antibiotic resistance through the reuse of treated wastewater	Sydney Galloway and Maya Payton
Dr. Jeff Nason (EnvE)	Will Young	Removal of engineered nanomaterials by conventional water treatment	Talmadge (Tre) Adams and Danica Ruud
Dr. Jeff Nason (EnvE)	Jasmin Kennard	Quantification of engineered nanoparticle aggregation in aquatic systems	Elena Borie and Melanie Nachtmann
Dr. Elain Fu (BioE)	Liam Wong, Jessy Imdieke, and Dylan Hinson	Developing Paper Microfluidic devices for low resource settings	Emily Bates and Kayla Gadd
Dr. Adam Higgins (BioE)	John Lahmann, Audrey Dickinson, Kaitlyn Clawson, Anica Neumann, Jolynn Meza Wynkoop	Microfuidics: Preserving and Separating Blood	Michele Valdes and Sitara Nath
Dr. Bo Sun (Bio-Physics)	Chris Jones and Garret Potter	Cancer Cell Mobility	Elissa Bloom and Lily Wong
School of Mechanical, Industrial and Manufacturing Engineering (MIME)			
Dr. Ravi Balasubramanian (Biomechanics)	Trystan Bartley	Robotic Hand Grasping Mechanisms	Sarah Holf and Anne Sweeney
Dr. David Blunck (ME)	Aaron Fillo	Diagnostic Tool for Determining CO2 releases from streams	Isabel Kalnin and Lisa Karnofski
Dr. Ethan Minot (Physics/Nanotechnology)	Lee Aspitarte	Nanotechnology: Carbon-based optoelectronics	Mallory Kirms and Trey Crim
Dr. Javier Calvo-Amodio (IME)	John McGrath	Finding Process Cadences Using Lego Kit Simulations	Micah Lorenz, Avery Johnson, Stephanie Hughes
Dr. Brady Gibbons (Materials)	Bryan Maack	Testing for Ferroelectric Properties in PZT Thin Films	Evelyn Cooper and Riley Kendrick
Dr. David Cann (Materials)	Nitish Kumar	Fabrication and testing of a piezoelectric ceramic	Alicia Carone and Sydney Clifton
School of Civil and Construction Engineering (CCE)			
Dr. Meghna Babbar-Sebens (CE)	Adriana D. Piemonti	Planning of Conservation Practices in Watersheds	Abbie Young and Angelica Allen
Dr. David Hurwitz (CE/Transportation)	Jennifer Warner, Medha Jannat	Right Hook Crashes	Shelby Cutter and Michael Cardani