In keeping with Allegheny’s commitment to provide students with a liberal arts education of high standards, the Senior Project is not a mere report or semester paper, but a significant piece of independent study, research or creative work conducted under the supervision of one or more faculty members. The outcome of a Senior Project is more than a grade or a written document; for the student it often results in a new way of looking at complex problems and inspires an appreciation for the power of ideas that might previously have seemed like abstract concepts in a textbook. Often it can be a pivotal moment when a student realizes his or her own abilities and potential.
Aydin Alikaya  
Major: Neuroscience  
Minor: Philosophy  
**The Effect of Testosterone on Neurogenesis in the Crayfish Brain**  
Project Advisor: Laureen French

Megan Bart  
Major: Communication Arts  
Minors: English; History  
**The People United Will Never Be Defeated: Social Media, Intercommunication, and the Production of Ferguson’s Resistant Subjects in Neoliberal Times**  
Project Advisor: Julie Wilson

Brynya Bowden  
Major: Environmental Studies  
Minor: Dance and Movement Studies  
**Yoga: A New Way to Approach Environmental Education?**  
Project Advisors: Eric Pallant; Eleanor Weisman

Maria Bozzo  
Major: Biology  
Minor: Psychology  
**An Investigation of the Methylation Status of the Promoter Region of Keap1 and Its Expression in Canine Hemangiosarcoma**  
Project Advisor: Kristen Webb

Cecilia Bruni  
Major: History  
Minors: Women’s Studies; Middle East and North African Studies  
**“The Lavender Menace”: The Complicated Relationship between Feminism and Lesbianism in the Second Wave of Feminism**  
Project Advisor: Barry Shapiro

Erica Bryson  
Major: Global Health Studies  
Minors: Biology; Psychology  
**Community Health Needs Assessment: A Collaborative Process for Survey Development**  
Project Advisor: Becky Dawson

Mario Buffalini  
Majors: International Studies; Spanish  
**The Argentine Default and Debt Restructuring: The Economic Crisis and Dealing with Outstanding Debt, 1983–2012**  
Project Advisors: Simon Bilo; Graciela Maglia; Shannan Mattiace

Melinda Buker  
Major: Spanish  
Minor: Women’s Studies  
**¿Joya cultural o cabeza de turco? La representación de los gitanos españoles en el siglo XX**  
Project Advisor: Teresa Herrera

Hope Collins  
Major: English—Nonfiction Creative Writing  
Minor: Psychology  
**Swallows, Anchors, & Sails: Essays from a U.S. Brig Niagara Deckhand**  
Project Advisor: Matthew Ferrence

Phoenix Cooke  
Major: Economics  
Minor: Studio Art  
**21st Century Inequality and Property Crime within U.S. Neighborhoods: Does Local Inequality Translate into Increased Levels of Property Crime for 2000 to 2010?**  
Project Advisors: Stephanie Martin; Zachary Klingensmith

Janos Cseh  
Major: Studio Art  
Minor: Economics  
**Isolation Room**  
Project Advisors: Darren Miller; Byron Rich

Kristen Dennis  
Majors: Math; Geology  
Minor: Psychology  
**Transient Electromagnetic Survey: Subsurface Investigation in the Santo Domingo Reservation, New Mexico**  
Project Advisors: Rachel Weir; Bob Schwartz

Hanna Hebert  
Majors: Managerial Economics; Environmental Studies  
**The Relationship between Corporate Environmental Performance and Corporate Financial Performance: An Empirical Analysis of 50 U.S. Corporations**  
Project Advisors: Steve Onyeiwu; Eric Pallant

Greta Hilbrands  
Major: Psychology  
Minor: English  
**Traits of Autism Associated with Internet Addiction and Social Anxiety in College Students**  
Project Advisor: Monali Chowdhury

Dalton Johnson  
Major: History  
Minors: Economics; Philosophy  
**Into the Night: George R.R. Martin’s A Song of Ice and Fire and the Early Icelandic Night Time**  
Project Advisor: Stephen Lyons

Raymond Jozwiak  
Major: Economics  
Minor: English  
**Identifying the Causal Factors that Affect the Industrial Organization of Primary Aluminum Smelters Across the Globe**  
Project Advisor: Tom Nonnenmacher

Tim Kloeppel  
Major: International Studies  
Minor: German  
**Hitler’s Consolidation of Power via the Remilitarization of the Rhineland (1936)**  
Project Advisor: Peter Ensberg

Aviv Lang  
Major: Behavioral Economics  
Minors: Studio Art; Communication Arts  
**Adjusting the Prism: Testing the Anchoring Effects of Color**  
Project Advisors: Lydia Eckstein Jackson; Douglas Frank

Cailyn Lingwall  
Major: Global Health Studies  
Minor: Political Science  
**Evaluating Physical Activity among Preschoolers at an Income-eligible “Pre-K Counts” Program in Rural Northwest Pennsylvania**  
Project Advisor: Caryl Waggett

Nicole Masters  
Major: Neuroscience  
Minor: Political Science  
**Experiences of Physical and Emotional Abuse are Associated with Blunted Cardiovascular Reactions to Psychological Stress**  
Project Advisor: Sarah Conklin

Maura Matvey  
Majors: Psychology; Spanish  
**The Effect of Accent Prejudice on the Subjective Well-Being of Non-native English Speakers**  
Project Advisors: Aimee Knupsky; Nancy Smith

Jessi Mazzoni  
Majors: Biology; Global Health Studies  
Minor: French  
**International Rights and Obligations to Health with Efforts to Combat Micronutrient Deficiency: Preventing Neonatal Vitamin A Deficiency through Supplementation in the Mouse Model (Mus musculus)**  
Project Advisors: Lee Coates; Ken Pinnnow

Steve Milcarek  
Major: Physics  
Minors: Economics; Astronomy  
**An Investigation of the Star V838 Monocerotis and Surrounding Astrophysical Parameter Space**  
Project Advisor: Jamie Lombardi
Katelyn Nicewander  
Major: Neuroscience  
Minor: Political Science  
**Lavender Essential Oil Aromatherapy Does Not Reduce Cardiovascular Reactions to Acute Psychological Stress**  
Project Advisors: Sarah Conklin; Lydia Eckstein Jackson

Brooke Ollander  
Major: Physics  
Minor: German  
**Dependence of the Contact Angle on the Method of Self-Assembled Monolayer Production**  
Project Advisors: Adele Poynor; David Statman

Alexandra Opsitnick  
Major: Environmental Geology  
Minor: Environmental Writing  
**Reservoir Quality of the Marcellus Shale Play of the Hill Unit 2H and Hill Unit 3H Wells**  
Project Advisor: Bob Schwartz

Shannon Petersen  
Major: Physics  
Minors: Writing; Mathematics  
**Quantifying the Relationship Between Surface Hydrophobicity and Depletion Layer Thickness**  
Project Advisor: Adele Poynor

Michael Petro  
Major: Biology  
Minor: Dance and Movement Studies  
**Determining the Importance of Force Production, Takeoff Speed, and Hip Flexion on Long Jump Performance**  
Project Advisor: Lisa Whitenack

Faith Robinson  
Major: Biology  
Minor: Music  
**The Effects of Musical Stimuli on Memory in Mice with Mice Modeled Alzheimer's Disease**  
Project Advisors: Lee Coates; Ron Mumme

Jenna Sandala  
Major: Biochemistry  
Minor: French  
**Disruption of Haemophilus ducreyi Biofilms by Probiotic Lactobacilli**  
Project Advisor: Tricia Humphreys

Lee Scandinaro  
Major: Communication Arts  
Minors: Theatre; Political Science  
**Diversity Discourse at Allegheny College: The Commodification of Citizenship in Neoliberal Times**  
Project Advisor: Emily Yochim

Julia Schock  
Majors: Communication Arts; Environmental Science  
**Hemlock**  
Project Advisors: Michael Keeley; Rich Bowden

Sara Schwartz  
Major: Environmental Studies  
Minor: English  
**Zooming In: A Photovoice Project that asks Fourth Grade Students to Frame How they Experience Physical Activity**  
Project Advisors: Caryl Waggett; Ben Haywood

Marlee Sherretts  
Major: Computer Science  
Minor: Spanish  
**Using Dynamic Invariant Detection and Static Visualization to Find Faults in Spreadsheets**  
Project Advisor: Gregory Kapfhammer

Sadie Stuart  
Major: Environmental Science  
Minor: Economics  
**The Carbon Athletic Conference: A Cleaner and More Affordable Option for Allegheny College Athletics**  
Project Advisor: Rich Bowden

Autumn Vogel  
Major: Psychology  
Minor: Values, Ethics and Social Action  
**Activist Theatre: The Effects of Activist Theatre on Socio-political Attitudes and Willingness to Engage in Activism**  
Project Advisor: Lydia Eckstein Jackson

Theodore Wassell  
Major: Mathematics  
Minor: Economics  
**The Fibonacci Numbers and Their Application to Probability**  
Project Advisor: Anthony Lo Bello

John Watt  
Majors: Political Science; Theatre  
**Theatre of Purpose: How Political Theatre Provides Commentary and Critique to Democracy in India**  
Project Advisors: Brian Harward; Eric Boynton

Lauren Wind  
Major: Environmental Science  
Minors: Chemistry; Spanish  
**Chronic Nitrogen Inputs Decrease Carbon Enzyme Activity in a Deciduous Northwestern Pennsylvania Forest**  
Project Advisor: Rich Bowden

Elizabeth Wozniak  
Major: Chinese Studies  
Minor: Psychology  
**The Effectiveness of Modern Pictographic Chinese Characters in Conveying Character Meaning**  
Project Advisors: Carl Olson; Xiaoling Shi

Naomi Young  
Majors: Political Science; Philosophy  
**The Perils of Trailblazing Same-Sex Marriage in the Law: A Case Study in Non-Humanist Jurisprudence**  
Project Advisors: Brian Harward; Eric Boynton

Annabel Zinn  
Major: History  
Minor: French  
**American Protestantism and Commercial Culture: Friends or Foes?**  
Project Advisor: Patrick Jackson

SENIOR PROJECTS IN ART

The Department of Art recognizes the following graduating students for their outstanding senior projects, which are currently on display in the Bowman-Penelec-Megahan Art Galleries:

**Jaysa Alvarez**  
**Natalie Bensel**  
**Jasmine Davis**  
**Ziania Narvaez-Garcia**  
**Brooke Osborne**  
**Joseph Phelps**  
**Greg Singer**  
**Sachika Yamaguchi**
The SENIOR PROJECT

HISTORY
Since the College’s first commencement in 1821, Allegheny students have showcased their exceptional academic achievements through a senior capstone experience of one kind or another. At times it involved an oral defense, at others a written thesis. The notion of a written Senior Project coupled with a comprehensive oral examination first appeared in the 1942 College Catalogue. In the 1970s, oral examinations shifted from a general defense of disciplinary expertise to a more focused verbal presentation of the Senior Project findings.

PREPARATION
The Senior Project provides students with an opportunity to integrate discipline-specific scholarship with the communication and research skills necessary for professionals in the 21st century. During their first year at Allegheny, students write, speak, and research frequently in their first-year seminars. By the sophomore year they are ready to undertake the complexities of writing and speaking in a specific discipline. They further hone these disciplinary communication skills in a junior seminar, the final preparatory phase for the Senior Project. By the senior year students are sufficiently prepared to undertake a scholarly endeavor approximating those experiences they will face as professionals in their field.

REALIZATION
The culminating experiences of the Senior Project are as varied as the disciplines that produce them, from recitals, performances, and exhibits to written and oral presentations on laboratory research. Many illustrate unusual combinations of disciplines, interests and skills. The Senior Project Celebration offers an open forum for students to present their projects, allowing seniors to refine their skills in presenting to a broad audience and share ideas with other students and the campus community.

ALLEGHENY COLLEGE