



Mentor: Melba Amador

1. *Democratization in Latin American Nations...* Jeffrey Thomas
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Mentor: Megan Bardolph

2. *The Applications of Augmented Reality in Historical Sites ...* Dylan Rummel
 3. *Is Time Travel Possible? It's Complicated...* Sairam Tanuboddi
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Mentor: Alina Bodea

4. *The Chernobyl Disaster: Lessons Learned for Sustainable Development...* Samantha Crawford
 5. *Global Health Explorations: A Study of Alcoholism in Russia...* Marcella Moore
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Mentor: Joseph Cuiffi

6. *Self-Leveling Platform...* Thomas Blythe, Ian Flasiak, Calvin Luchs
 7. *Automated Brewing System...* Eric Green, Erin Motto, Shane Toth
 8. *Clover Rover: An Autonomous Weedwacker...* Ryan Koscianski, Marc Russo, Nikita Rylow
 9. *Solar Cell Inverter Design...* Chris Oberdorf
 10. *Controlling a Conveyor Using the Internet of Things...* Michael Ott
 11. *Current Sensors and Energy Measurement ...* Sarah Peppler
 12. *Arduino Powered Automated Car Wash...* Sedona Rogers
 13. *Autonomous Wheelchair...* Nicholas Roth, Justin Dumm, Tyler Kline
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Mentor: Carley Gwin

14. *Planting a Butterfly Plot at PSNK: The Importance of Native Plant Selection ...* Gabrielle Kriley, Sienna McCoy
15. *The Significance of Genetic Screening for Tay-Sachs Disease...* Alyssa Stewart

Mentor: Carley Gwin

16. *Viewing Habitat Succession at PSNK...* Matthew Stanga
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Mentors: Carley Gwin and Robert Mathers

17. *Emerging Contaminants in Wastewater Treatment Plants: Antibiotics at Penn State New Kensington...* Matthew Stanga
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Mentor: Craig Hammond

18. *History vs Heritage: Was America Founded as a Christian Nation? ...* Cameron Clark
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Mentor: Rick Harnish

19. *Recall: Can It Really Change With Your Emotion?...* Tyler J. Campbell
20. *How Relaxation and Excitement Affects Reaction Time...* Michael Cochran
21. *Eyewitness Identification: Age, Lighting Conditions, Race and Alcohol Intoxication...* Hailey Dikun
22. *Does Background Music Have an Effect On Memory Recall?...* Ben Edwards
23. *Accuracy of Eyewitness Testimony ...* Jessica H. Kurtz
24. *Studying In Groups Versus Alone...* Katlynn Martin
25. *Effects and Treatments of Bipolar Disorder...* Kylie Meyer
26. *Information Recall Following an Online and Traditional Lecture...* Makayla Rae Shank
27. *Correlates of Compulsive Buying...* Savannah Smith
28. *What I Wish My Mentor Had Told Me: How to Edit an E-book...* Savannah Smith
29. *The Color Red and Memory...* Clara Starr
30. *Empathy: A Measurement Using Photos...* Evan V. Yoder

Mentor: Joan Kowalski

- 31. *Artificial Heart Development and Uses...* Chloe Fellabaum
 - 32. *Bar Shearing in Steel Mills...* Derrick Mack
 - 33. *3D Printing and an Object's Center of Gravity...* Aarron Smith
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Mentors: Joan Kowalski and Mohamed Abdelmoula

- 34. *Measuring Thrust Produced by a Solid Fuel Rocket Engine...*
Andrew Dauby, Nicholas Lawton
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Mentors: Joan Kowalski and Adam Zottola

- 35. *Prosthetic Hands: A Cost Effective Solution...* Jeffrey Will, Aaron Dominick
 - 36. *Determination of Glass Transition Temperature of Various Polymers...* Kevin A. Litzinger
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Mentors: Debra Majetic and Marcia Curler

- 37. *Fetal Alcohol Syndrome...* Alexa Burke, Alaina Sherrieb
 - 38. *2D vs 3D Mammography...* Bailee DiFilippo, Courtney Orr
 - 39. *Neurocysticercosis: The Brain Eating Parasite...* Tabitha Donaldson, Ashten Flynn
 - 40. *Alzheimer's Disease...* Emily McQuigg, Madison Sedilko
 - 41. *Three-Dimensional Medical Printing ...* Holly Pringle and Taylor Roach
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Mentor: Rujirutana Mandhachitara

- 42. *Hydration 4.0...* Devon Anckle, Christina Walters, Drew Rodgers
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Mentor: Rujirutana Mandhachitara and Joseph Cuiffi

- 43. *Returnit app. : A New Way of Returning...* Krystin Racki, Erika Finn, Nikita Rylow, Calvin Luchs

Mentor: Michael Manojlovich

- 44. *Advanced Persistent Threat: The Digital Invasion...* Logan Villella
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Mentor: Joie Marhefka

- 45. *The Future of Biomedical Engineering Technology...* Nicholas Shook
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Mentor: Penelope Morrison

- 46. *Stigma and STI Screening...* Jesse Cenci
 - 47. *Opioid Misuse in Rural Areas vs. Urban and Suburban Areas ...*
Carly Duncan
 - 48. *Examining the Relationship Between Opioid Misuse and Access to Healthcare...* Carly Duncan
 - 49. *Female Genital Mutilation and its Biopsychosocial Consequences on Women...* Kaylea Flick
 - 50. *Exploring the relationship between depression and exercise habits ...* Cora Rejniak
 - 51. *Community Health Needs Assessment: Exploring the relationship between SES & BMI...* Ashley Worlds
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Mentor: Kristal Tucker

- 52. *The Biological Impacts of Russian Tick-borne Encephalitis...* Alyssa Stewart
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Apollo-Ridge High School PJAS Projects

- 53. *Emerging Contaminants ...* Dominick Cicala
- 54. *"Cellular" Bacteria ...* Giovanni Cicala

