

## Honors Projects, Fall 2017

### **Abigayle Endress**

*Course: Introduction to Animal Science; Instructor: Justin Ebert*

Research was conducted on the trends in milk, meat, and poultry industries. The research was made through the form of reading, interviews, and literary research to compare and contrast “clean” meat, meat produced in petri dishes, vegetarian meat, and traditional meat. Investigation was made on how meat affects human health and the environment.

### **Miranda Goeke**

*Course: Biology I; Instructor: Karla Giuffre*

A plant experiment was conducted comparing different species of plants watered with different solutions of salt. The data collected was compared to determine which species could regulate salt concentrations better than others and determine the cellular damage that occurs.

### **Taylor Haag**

*Course: General College Chemistry I; Instructor: John Sullivan*

The project consisted of completion of iodometric titration of cysteine utilizing the Lambda Biot UV-vis spectrophotometer. For this project, the student used a starch indicator to combine the amino acid building blocks to form a larger molecule cysteine, a disulfide, using a spectrophotometer.

### **Taylor Haag**

*Course: Biology I; Instructor: Karla Giuffre*

An analysis of personal DNA was performed using the National Geographic Genographic Project. After the testing of DNA, the individual was able to determine the origin of common ancestors through the maternal mitochondrial DNA (mtDNA) line. The mtDNA was able to be traced from Africa all the way to West Asia and Northern Europe. This mtDNA was compared to Neanderthal DNA, which accounted for more than 1% found in the DNA results.

### **Michelle Johnson**

*Course: Introduction to Art; Instructor: Bob Apolloni*

An art project that involved three forms of expression was created. The first part incorporated the art of photography and how an image can show an event or expression, make a statement, or simply please the eye. The second part is a representational painting of a horse. Representational art takes objects that viewers recognize from the natural, everyday world.

### **Madeline Kuhl**

*Course: Introduction to Art; Instructor: Bob Apolloni*

A photography portfolio was created showcasing different art forms and the actions done to complete the art forms. The final project included traditional Mexican dance, musical instruments, and/or painting. Photographs were included for each subject.

**Madeline Kuhl**

*Course: Introduction to Fiction; Instructor: Donna Tufariello*

Intensive research into the criticisms of *Great Expectations* was performed. A 1500 word literature paper was written that includes the work of professional critics.

**Jenna Lafferty**

*Course: Organic Chemistry I; Instructor: Dr. Brendan Dutmer*

A collaboration project was conducted with another Honors student to study the energetics of a pericyclic, concerted reaction between a reactive aminoborane containing a tetravalent boron and alkenes with trifluoromethyl substituents in varied locations. One student focused on the energetics of the transition state and the other student focused on the products. The work will be presented in a poster session during the 255<sup>th</sup> [American Chemical Society \(ACS\) National Meeting in New Orleans](#), Louisiana in March 2018.

**Keaton Lawson**

*Course: Organic Chemistry I; Instructor: Dr. Brendan Dutmer*

A collaboration project was conducted with another Honors student to study the energetics of a pericyclic, concerted reaction between a reactive aminoborane containing a tetravalent boron and alkenes with trifluoromethyl substituents in varied locations. One student focused on the energetics of the transition state and the other student focused on the products. The work will be presented in a poster session during the 255<sup>th</sup> [American Chemical Society \(ACS\) National Meeting in New Orleans](#), Louisiana in March 2018.

**Caroline Martin**

*Course: Introduction to Psychology; Instructor: Dr. Chelsea Martinez*

A dream investigation was completed to determine if there is a link between environmental factors and dreaming. The honors student studied their own dreams by recording various settings that could affect dreams or the production of nightmares and collecting data on the outcomes.

**Caroline Martin**

*Course: Education as an Agent for Change; Instructor: Dr. Chelsea Martinez*

The student worked with the Tri-County Christian fourth grade class with the writing and development of a history book. The project encourages research skills in the classroom and gave the honors student experience with lesson planning and teaching. At the completion of the project, books were made (with the aid of an Honors program scholarship) to give each child a copy of what they helped create.

**Rhonda Pokoj**

*Course: Psychiatric Nursing; Instructor: Chrislyn Senneff*

A research investigation was conducted on anxiety and what the effects of today's technology (cell phones, social media, etc) have on the condition. First, online research on the subject was conducted followed by IRB-approved surveys to college adults at Highland. The goal was to see if the younger generation has more or less anxiety than those who were raised without a "computer" in their hands.