

**Columbia College Honors Program
Honors Project Prospectus
Cover Sheet**

Name Shannon C. Theobald

Title of project Immuno-histological Research

Hon. 498 Semester/Year: Spring 2014 Credit hours 3 hrs

The following items should be addressed in the prospectus:

1. Describe the goals of the project. Provide specific details about how the project will be conducted and state a specific hypothesis (if applicable). You may also want to provide some background information about your topic.
2. Describe how the project fits in with your educational background and experience and how the project is related to your post-graduation plans for career or graduate study. Describe how the project enhances your honors education.
3. Detail how your director will assess your project. Include specific details about the assessment criteria. Describe in detail any product that you expect to generate. For example, if you will be completing a written paper, provide information about the expected length of the paper, the number of resources to be used, and the citation style to be used (APA or MLA, etc.). If you will be doing a creative performance or preparing a portfolio or some other product, you may include a checklist of items to be included and details about how the project will be judged.
4. Provide a preliminary bibliography. Generally, a preliminary reference list of resources will be appropriate.

Note: Projects completed during spring semester are due to faculty directors for assessment by early April. Projects completed during fall semester are due to faculty directors for grading by early November. The project is showcased for students, faculty, family, and friends at the senior Honors Medal Ceremony held before graduation. Displays may vary from computer presentations, to poster displays, to video segments, to artifact collections or any other creative, appropriate means to share your project. Although students complete their project during the junior year, graduates are expected to participate in the showcase at the Medal Ceremony.

The undersigned agree to the guidelines set forth in the Honors Project Prospectus:

Shannon Theobald
Student Signature

1/16/14
Date

Marlee B. Maroz
Faculty Director Signature

1/16/14
Date

Mr. Zubiawet
Honors Program Director Signature

1/16/14
Date

1. Describe the goals of the project. Provide specific details about how the project will be conducted and state a specific hypothesis (if applicable). You may also want to provide some background information about your topic.

Over the course of the semester a research project will be conducted in which I will dissect local fish collected from Saluda Shoals and examine the fish for parasites. Organs will be obtained from fish and prepared for histologic and immunologic examination. I will be trying to determine the immune response of the fish to the parasites.

2. Describe how the project fits in with your educational background and experience and how the project is related to your post-graduation plans for career or graduate study. Describe how the project enhances your honors education.

Having taken a course in immunology in the fall of 2013 and histology in the fall of 2012, both taught by Dr. Marsh, at Columbia College, I will further my education in these fields through conducting research in the spring of 2014. As a biology major with a chemistry minor, I felt it appropriate to do research as a senior capstone despite not being required to do so. I have yet to conduct research during my undergraduate career and it is often suggested if not required by graduate programs. I plan to attend medical school, but I am also interested in getting my master's in public health. Therefore, it is important that I understand how to conduct research. Conducting student research is the perfect way to practice the Honor's Program's motto: "Not more, but better." By practicing and seeing what I have learned first-hand will increase my understanding and knowledge of the subject matter. Not all students have the opportunity to conduct research, however, completing my honors project will allow me to utilize this research opportunity.

3. Detail how your director will assess your project. Include specific details about the assessment criteria. Describe in detail any product that you expect to generate. For example, if you will be completing a written paper, provide information about the expected length of the paper, the number of resources to be used, and the citation style to be used (APA or MLA, etc.). If you will be doing a creative performance or preparing a portfolio or some other product, you may include a checklist of items to be included and details about how the project will be judged.

During the project, I will acquire hands-on research experience/techniques, experience the scientific process from hypothesis through synthesis of results, apply scientific knowledge to real-world molecular and environmental problems, and have a Capstone experience by demonstrating scientific writing skills through submission of a final scientific report. I will attend a weekly research meeting and will submit required documentation of 120 hours of work/research. I will also write a final scientific paper using CSE format and submit either a poster or presentation abstract with my research partners for SCAS 2014 meeting on April 5th in Charleston, SC. The research will also be presented at Columbia College during Science Seminar Senior Presentations.

4. Provide a preliminary bibliography. Generally, a preliminary reference list of resources will be appropriate.

Govett EP, Weber S. Parasitology and Necropsy of Fish. Compendium: Cont Ed for Vets. 2009 Feb: E1-E7.

Mumford S, Heidel J, Smith C, Morrison J, MacConnell B, Blazer V. Fish Histology and Histopathology. NCTC-USFWS. 2007 July.

Parasitology. NWFHS Laboratory Procedures Manual. 2nd ed. Washington (D.C.): 2004

Scholz T. Parasites in cultured and feral fish. Vet Parasit. 1999;84:317-335.