

WHEATON COLLEGE

Student-Initiated Connection Proposal

Connections Learning Outcomes: As a result of connections students will be able to:

1. Understand how different academic disciplines analyze topics and solve problems
2. Apply methods or concepts from more than one discipline when analyzing topics or solving problems
3. Communicate using more than one different disciplinary perspective
4. Identify other disciplinary connections both in and outside the classroom

DIRECTIONS for structuring and submitting a Self-Initiated Connection Proposal:

The final date to submit the proposal is the "**last day to drop a course without record**" deadline of the semester in which you plan to take the last course of the Connection. Refer to the academic calendar on the Web for the specific date this semester.

- A proposed two-course Connection must link courses from at least two different Areas, a three-course Connection must link courses from three areas. **The six areas are:** History (ARHS), Creative Arts (ARCA), Humanities (ARHM), Social Sciences (ARSS), Natural Sciences (ARNS), Math/CS (ARMC).
- One single course cannot be used in two Connections.
- You cannot use English 101, Writing, or First Year Seminar, in a Self-Initiated Connection.
- When including an Independent Study in your proposal, you must also submit a statement that includes a full description of the Independent Study, plus the reading list. *It is the responsibility of the student to provide this information.*
- **Attention Seniors:** Proposals may **not** be submitted in your final semester.

Student Name: Grace Sherman

Date: 10/19/17

Wheaton ID: W00355506

Class Year: 2020

Title of Your Proposed Connection: BOTANICAL IMPERIALISM

1. Attach the syllabi from all courses included in this Connection.
2. In a brief essay, identify the inter-connection you have found among these courses. Your essay should address the **Connections Learning Outcomes** found at the top of this page.
3. The faculty teaching each course must read your essay and approve this proposed Connection in the box below.
4. Submit this form, the accompanying essay, and the syllabi to the Committee on Educational Policy, care of the Office of the Provost, Park Hall.

Course #	Course Title	Area	Semester Taken	Faculty Approval
(Example) SOC 230	(Follow this format when filling out your proposal.) Race and Ethnicity	ARSS	Fall 2014	Please print your name and sign below.
HIST 298	MEDICINE AND IMPERIALISM	ARHS	Spring 2017	"I have read this proposal and approve it." Print Name: NO longer teaches at wheaton. TRAVIS PEARSON Signature:
BIO 261	ECONOMIC BOTANY	ARNS	Fall 2017	"I have read this proposal and approve it." Print Name: SHUMWAY Signature: <i>sshumway</i>
				"I have read this proposal and approve it." Print Name: Signature:

Approved

Date _____

Chair, Committee on Educational Policy

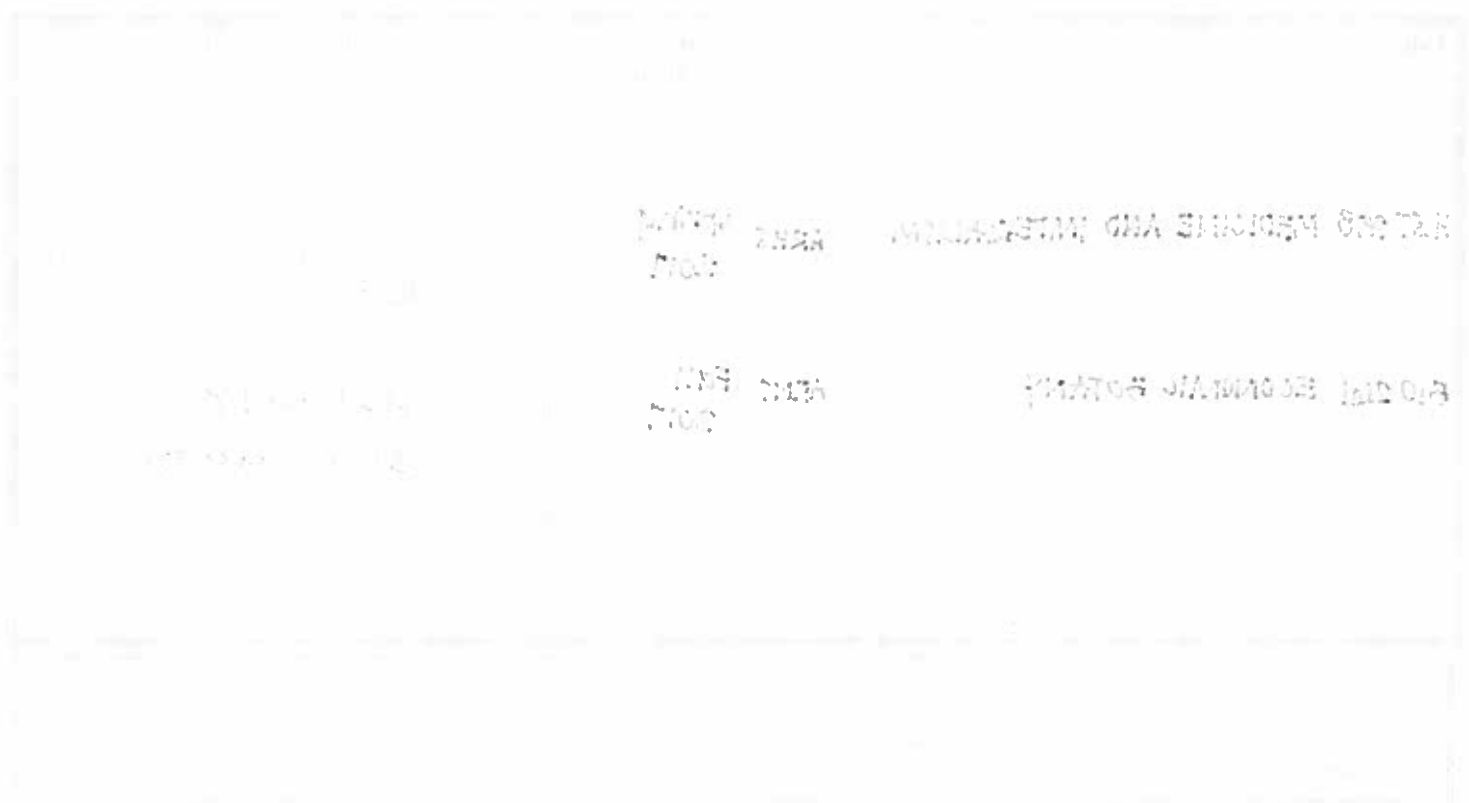
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Grace Sherman

Connection Proposal

Botanical Imperialism

I am proposing a connection between Medicine and Imperialism (HIST 298) and Economic Botany (BIO 261). Having taken Medicine and Imperialism last year, I feel as if I have a different perspective and another sense of background knowledge to Economic Botany that I would not have otherwise. My Freshman Year Seminar focused on the history of pain, and it caught my attention, so I thought I would give another similar history class a go. Medicine and Imperialism revolved around the history of how imperialism impacted modern day medicine and how medicine originated with indigenous people, practices, and plants. Economic Botany is providing me with the knowledge of how valuable plants are and the anatomy of them in the environment around us. Through the lenses of these two classes, botanical imperialism aims to explain how the search for conquest brought back plants that have shaped and changed the world completely.

In Medicine and Imperialism, we learned that modern medicine originated from plants used by indigenous people discovered through colonization. Colonization began as Europeans were searching for oriental spices during the Columbian Exchange, instead, stumbling upon indigenous medicinal practices. While scouring spice markets, colonists discovered that many plants thought useless to them, in fact had major medicinal properties. This class gave me a new perspective on how the majority of the medicine we have today came from the process of colonization and indigenous people, something I did not realize or truly appreciate before. I also gained insight about how the search for conquest and more knowledge on the indigenous uses of

medicinal plants led to some of the deadliest New and Old World diseases. As diseases like smallpox, malaria, scurvy, yellow fever, and beriberi wiped out mass populations, the medicinal properties found in many native plants were the only remedies. One of which was the bark from the Cinchona tree, native to South America, which aided in treating the fevers that arose from malaria. Without the search for conquest, Europeans would have most likely never encountered this tree along with its ability to help the fevers of malaria subside. Once this property of the bark was discovered and became public knowledge, a trade in counterfeit cinchona was sparked because of how highly valued the bark was for treating fevers. This prompted the “chemical revolution”, where medicinal plants, like cinchona, were broken down into their key elements to find what specifically aided in treating diseases. Cinchona was found to contain a compound called quinine, which is the component in the bark that helped to lower fevers from malaria. Without these discoveries through botanical imperialism, cinchona may have not have been discovered and quinine may not have been isolated and used to treat malaria.

While learning about the plants in the Poaceae (grass family), specifically corn, I saw the two classes intertwine even more. I learned in *Medicine and Imperialism* that colonialism led to a culture clash on goods and practices brought back between the Old World and the New World. Specifically in the subject of plants, there were misunderstandings on how to cultivate, use, or eat many of the newly introduced plant species. In *Economic Botany* I learned that the Mayans and Aztecs used corn as an integral part of their everyday diet. They would grind the corn by soaking it in lime and ash, a process called nixtamalization, which made it easier to remove the seed coat, making the corn more nutritious and better for digestion. When the Europeans discovered how much easier it was to grow corn in the European climate than wheat, it quickly became a staple in their diets. Although, they did not have the knowledge from years of

cultivating and learning about the crop that the Aztecs and Mayans did. Therefore, many Europeans developed a disease called Pellagra which could eventually lead to death. Both classes bring the common theme together that colonialism between the Old and New World introduced new plants and many factors that brought about deadly diseases. Before people began to switch from a nomadic lifestyle to a more sedentary one based around agriculture, they lived closely alongside their animals. The notion that diseases arose from living in close proximity to animals without immunity ties directly into how we learned about Old World diseases becoming New World plagues in Medicine and Imperialism. From the perspective of Medicine and Imperialism, those arising diseases created the perfect opportunity for modern Western medicine to begin to develop. Whereas, from the perspective of Economic Botany, the diseases from living closely with animals led to the switch to agriculture.

Through taking both of these courses, I have learned how the two subjects go hand in hand. Without one, we would not have the other. Without the switch from a hunter-gatherer lifestyle, people would have never learned to cultivate the plants which have become staples in many diets throughout the world. With no colonization and imperialism, we would not have access to or knowledge of many of the plants that we eat and use today from all over the world. If people had not set out on the search for spices and stumbled upon medicinal plants, modern medicine would be very different from what it is today. We would not be aware of plants that are not native to our own surrounding area. Without botanical knowledge, successfully cultivating plants to grow in different climates or selecting for a specific trait would be nearly impossible. Medicine and Imperialism reiterated the implications of colonialism in terms of diseases throughout history and how medicine arose from that. Economic Botany explains the anatomy of plants and how humans can use that information to their advantage. Botanical imperialism

encompasses the two classes as a whole, highlighting the fact that imperialism brought native plants from different indigenous people and practices and integrated them into the New World, shaping our world to be what it is today.