

BIO/HIS-195: Global Medicinals
A Global Learning Program (GLP) Tutorial - Spring 2019

Contact Information

Instructor: Carolyn Herbst Lewis
Office: 317 Mears Cottage
lewiscar@grinnell.edu

Instructor: Josh Sandquist
Office: 1203 Noyce
sandquis@grinnell.edu

DLAC Staff: Gina Donovan
donovang@grinnell.edu

Lewis Office Hours: Wednesday, 10:30-Noon, or by appointment. Using the Outlook Scheduling Assistant function in the Calendar is the easiest way to see my availability. I'm happy to show you how to use it. You can also email for an appointment. No appointment needed during office hours.

Sandquist Office Hours: Mon & Wed 9:30-10:30; Wed 4-5; Fri 11-12. These are times I promise to be in my office (unless otherwise informed). Outside those times, if I am in my office I am generally available to chat. I prefer to work with my door closed, but if I am in my office please feel free to knock. If my office hours align poorly with your schedule, email me for an appointment.

Course Description

What is a medicine? What does it mean to medicate? How do our beliefs about the body, health, and illness affect our assumptions about what does and does not count as a medicine? When we need a medicine, who do we trust to prescribe it, to make it? Why do we take it? This Global Learning Program (GLP) Tutorial will explore the past, present, and future of global medicines. We will examine various herbal traditions, the most cutting-edge pharmaceuticals, and the complicated relationships between them.

As human beings, as biological organisms, we are shaped, both literally and figuratively, by the stuff that enters our bodies. Beyond the basic consumption of calories as a source of energy, the molecules to which we are exposed, whether synthetic or organic, can cause or cure illness or otherwise augment the human experience. Data from a variety of academic disciplines confirm that humans have long sought to alleviate suffering and maintain wellness through the application of various substances to their person, whether by ingestion, injection, inhalation, or topical application to their skin. This practice almost certainly began with early humans noting that the ingestion of certain plants in their natural, unprocessed form produced reproducible effects on certain bodily functions. And while human physiology, and by extension the physiological response to a given molecule, is largely universal, the customs and habits of consumption – of foods, of medicines, of anything we take in – can vary greatly by individual preference, cultural practice, and social norms.

Cultural practices often seem strange when viewed outside of the culture they developed in and separated from their historical roots. Whether it is trick-or-treating or tailgating, acupuncture or tree bathing, it is difficult to fully appreciate a practice from afar. In contemporary United States of America, where the phrase “there is a pill for everything” is both cheeky commentary on our society’s reliance on drugs and an almost genuinely accurate statement, the idea of rubbing plantain, a common backyard weed, on a mosquito bite may seem... dated, to put it mildly. And yet, almost everyone knows that the active ingredient in aspirin was first isolated from the bark of the willow tree. Indeed, the vast majority of our pills are filled with purified and, often, slightly modified forms of molecules first identified in nature. That there are still useful remedies hidden away in roots and leaves not yet fully studied by science seems undeniable, which brings us to the object of this course.

This GLP Tutorial will explore the historical and contemporary definitions and uses of medicinals - operationally defined as any substance or process thought to have healing properties. The course content will compare diverse medical belief systems that have existed and continue to exist worldwide, looking at the rise of “Western” medicine and its seeming contrast to those systems that now are labeled “herbal,”

“indigenous,” “traditional,” or “alternative.” A central question is: What is a medicine? Is a medicine something one takes only when they are ill or can things thought to maintain good health be considered medicines? Similarly, can food be considered medicine? Who decides what is a medicine or when a medicinal treatment is necessary? How is knowledge about medicines generated and preserved? Who are the gatekeepers of medical knowledge? And, ultimately, what are the challenges to collating the parts that work from various medical systems into one future system of the broadest possible utility?

To explore the above questions, we will discuss readings from a variety of sources and invite in outside speakers who have specialized knowledge on related topics. Perhaps more significantly, as a GLP Tutorial, we will travel as a class to Japan and England in order to explore the medicinal systems of these two cultures in greater depth. Both countries are leaders in the global pharmaceutical industry. Moreover, each has a long history of traditional herbal medicine that has informed and continues to inform synthetic pharmaceuticals.

Instructor Backgrounds

Carolyn Herbst Lewis teaches courses on the histories of medicine, sexuality, and women in the United States. In *Prescription for Heterosexuality: Sexual Citizenship in the Cold War Era* (University of North Carolina Press, 2010,2013), she explored the definitions of gender and sexual health maintained by the American medical profession in the 1950s and 1960s. Shifting standards of medical authority were a central part of this story, which relied upon data collected from hundreds of professional medical journal articles written in this period. Since then, she has continued to study the often-overlapping fields of medical, sexual, and gender history. She has both published and forthcoming articles on the history of home birth in the twentieth century United States. In 2017, she began studying herbalism through courses at the Greater Des Moines Botanical Garden. She brings to this GLP Tutorial expertise in the history of modern medicine, an interest in interrogating questions of power, authority, and knowledge-producing, and experience as both a patient and student of alternative medical practices, including Traditional Chinese Medicine, Japanese Reiki, Qi Gong, and Euro-American herbalism.

With a B.S. in the Pharmaceutical Science and a Ph.D. in Pharmacology, Josh Sandquist has a deep understanding of the development and uses of modern “Western” pharmaceutical agents. Further, he regularly teaches a 300-level biology course at Grinnell called “Principles of Pharmacology,” which explores not only the scientific theory relating to the ways modern pharmaceuticals are made and work in the body, but also some of the history and societal relevance of pharmacology. Additionally, a significant portion of Josh’s BIO150 covers the history of embryology and how it relates to modern reproductive biology, and his recent Freshmen Tutorial, “The ART of Baby Making” explored the scientific, moral, ethical, and legal aspects of assisted reproductive technologies (ART). Together these experiences have increased his interest in working with students to examine the interface between medical science and society. He is excited that this GLP Tutorial will provide the opportunity to work with students to ask relevant questions in a variety of cultural contexts around the globe.

Course Learning Goals

The broad mission and core learning objective of the Global Learning Program (GLP) is to provide first year students an opportunity to travel internationally and use that experience, along with their general skills and knowledge cultivated at Grinnell, to explore an interdisciplinary topic of global significance. A detailed description of the College’s global education learning goals can be found here. More details on course themes and topics that will be covered in the course are described in the following section.

Course Themes and Guiding Questions

‘Modern’ medicine isn’t necessarily better, but we understand it better. It is easier for a doctor to understand and predict the effects of taking 200 milligrams of sodium acetylsalicylate (aspirin) versus drinking a tea made from a handful of willow bark. The purity and formulation of an aspirin tablet fits better into the Western system of medical practice, and thus may, on the surface, appear to be the

preferred. That is not to say, however, that willow bark tea has no value. The question is: how does a person and society in general decide whether a treatment or therapy is useful and safe? What factors go into such decisions? Who decides? Who profits? The themes below and associated questions organize the intellectual exploration students will undertake in this course. A central theme throughout is understanding the origins and development of the ideas that guide current practices in various cultures.

Theme 1: Making Medicinals. An exploration of the various means of producing and processing different types of medicinals in different cultural contexts. What tools, processes, and knowledge are used to make medicinals, whether in a person's home or a pharmaceutical laboratory? Who makes (and profits from making) medicine in different medical systems? What is the chemical relationship between specific herbal and pharmaceutical remedies? What standards for producing medicinal agents exist, or should exist? How do medicines fit into the larger systems of the body, illness, and wellness?

Theme 2: Prescribing Medicinals. An exploration into the power structures that control access to medicinals. Who has the authority to prescribe (and profits from prescribing) a particular course of medicinal treatment? Who holds the knowledge about medicinals? What are the rules for prescribing a therapy, and who determines whether the relevant people are following the rules? Is formal training necessary to prescribe medicines and therapies; if so what does it look like? What systems have been established to study how best to use different medicinal agents or therapies?

Theme 3: Taking Medicinals. An exploration of the various means by which people seek to take a medicinal. How do people access medicinals? What knowledge or resources are necessary? Who promotes or advertises medicinal options? How do individuals seek to improve their own health? What spiritual and cultural concerns influence the decision whether or not to pursue medicinal treatment?

Major Course Activities & Assignments

In addition to regular readings (mixture of books, journal articles, etc.) and discussions typical of courses at Grinnell, this course will feature visits from outside guests, short local field trips, and international travel. While the international travel is exciting and an important element of learning in this course, the instructors wish to acknowledge that it is also a challenge. In particular, you will have to sacrifice some of your free time over spring break and the first week of summer. Brief descriptions of the planned international travel are included below.

Japan: The trip to Japan will take place during spring break, from March 19-27. This will include an approximately 13-hour flight from Minneapolis to Haneda Airport outside Tokyo and several train rides between major cities in Japan, including Kyoto, Nara, Toyama, and Tokyo. On this trip, we will largely focus on Kampo, a Japanese traditional medical system based on Traditional Chinese Medicine. In addition to exploring the history of Kampo, such as how its early focus on treating the poor stemmed from Buddhist traditions, we will meet with scientists and practitioners who are currently investigating means of standardizing Kampo medical knowledge, with regards to both illnesses and treatments, so that Kampo can be used more effectively today. For example, ginseng is a widely used herbal, but not all ginseng is the same. In fact, there over a dozen types of ginseng that are all chemically distinct. Even the exact same plant species can have varying medicinal properties depending on the environment in which it is grown or what time of year it is harvested. We will meet with researchers at the University of Toyama who are, among other things, using advanced techniques to define the chemical nature of various herbal medicines, including ginseng. Further, we will meet with government officials in the Nara prefecture who are concerned with making more visible the history of Kampo in the region and developing its current-day uses as a means of expanding access to affordable healthcare. Beyond the meetings mentioned above, we will also visit museums, access points for Kampo (e.g. shops, pharmacies, hospitals), and important cultural sites.

England: The trip to England will take place upon conclusion of the spring term, from May 18-26. This will include an approximately 7-hour flight from Chicago to London and several train and/or bus rides between major cities, including London, Exeter, Bristol, and Bath. On this trip we will explore the historical and modern roles of herbals in medical practice in England. In London, we will meet researchers who are interested in characterizing the chemical nature of herbals and exploring how the development of herbal medicines has exploited traditional knowledge possessed by different peoples all over the world. London is also home to multiple sites concerned with the preservation of herbalism's history, including the Chelsea Physic Garden and the Old Operating Theatre and Herb Garret. At the University of Exeter in Exeter we will meet people who study the history of medicine, including a growing interest in food as medicine. We also will learn about current efforts at sustainable cultivation at the Organic Herb Trading Company's garden. In addition to the medicinal-related experiences described above, we will visit important cultural sites, such as the Roman Baths and St. Paul's Cathedral.

Major Assignments: In order to give students the opportunity to engage in meaningful ongoing conversations about the course themes, to integrate the travel experiences into the broader course, and to give students the chance to share their thoughts and experiences beyond the class, students will be completing a series of podcasts and digital storytelling assignments. In order to facilitate this, Gina Donovan, Instructional Technologist in the Digital Liberal Arts Collaborative, will accompany the class to Japan and England. These major assignments relate directly to the travel experiences, but they will build off of knowledge developed through normal class assignments and discussions taking place over the course of the semester.

Learning Goals

The broad mission and core learning objective of Global Learning Program is to provide first year students an opportunity to travel internationally and use that experience, along with their general skills and knowledge cultivated at Grinnell, to explore an interdisciplinary topic of global significance. A detailed description of the College's global education learning goals can be found [here](#). More specifically, your professors' learning goals for this course are as follows:

- 1) Through travel experiences and learning activities, students will deepen their understanding of what it means, clinically and culturally, to medicate.
- 2) Through written assignments and digital projects, students will strengthen their ability to present their ideas effectively with sophistication and offer informed analysis through multiple forms of communication.
- 3) Through the close study of two distinct medicinal systems (Euro-American herbology and Japanese Kampo), students will practice identifying their own implicit biases and engaging with beliefs and cultures that differ from their own.

Meeting Times & Location

Meeting Times: Mon & Wed | 2:30-3:50 pm

Location: JRC 226

Syllabus Quick Links

[Resources and Materials](#)

[Assessment](#) (general expectations of work and [grading scale](#))

[Major assignment overview](#)

[Major assignment descriptions](#)

[Assignment guidelines](#)

[Course policies](#)

[Proposed course schedule](#)

Resources & Materials

- All readings will be provided via Blackboard, the library's e-reserves system, or websites.
- A three-ring binder or a folder will be useful for keeping track of handouts, etc.
- Writing Guides:
 - The Grinnell College Guide to Writing, Research, and Speaking can be found [here](#).
 - The Purdue Owl (<https://owl.english.purdue.edu/owl/>) is another excellent online resource for all things writing, from general writing tips to specific citation formats.
- Academic Resource Centers (<http://www.grinnell.edu/academics/arc/>) are a network of various academic resources, including the Reading and Writing Labs, which can provide you with help on many aspects of your studies. The Writing Lab offers courses on writing for credit, which can be a great way to improve your writing.

Assessment

The assigned readings, exercises, and activities are designed to facilitate your understanding of the subject matter and your achievement of the stated learning objectives for the course. As this is primarily a writing-intensive course a number of in-class and out-of-class writing assignments of various formats will comprise the major portion of your final grade. Oral presentations, class participation and overall engagement will also factor in, as broken down below.

<u>Assignment / Grade Component:</u>	<u>Points (135):</u>
Reflection essays (x3)	10 (each)
Kampo presentation project	10
Japan digital storytelling project	25
England podcast project	25
Smaller assignments/exercises	25 (total)
• initial reflection	
• reading questions	
• others	
Participation / class preparation	20

* See the proposed schedule at the end of the syllabus for due dates of major assignments.

Out of class expectations:

We expect you to spend approximately 8 hours per week outside of class performing the class readings and/or completing your assignments. The ratio of reading to writing will vary by the week.

Grading Scale:

93-100% A	83-86% B	70-76%	C
90-92% A-	80-82% B-	60-69%	D
87-89% B+	77-79% C+	below 60%	F

Final grades will be based on the percentage scale provided above and not on a “curve”. Thus, you will receive at minimum the grade determined by how well **you** perform on each assignment, as opposed to how well you perform relative to your peers. Note that continued effort and demonstrable improvement over the course of the semester will have a positive effect on your final grade.

If you are concerned about your grade, please contact the professors promptly so that we can evaluate your progress and discuss ways to help you improve your performance on subsequent graded assignments.

Course Policies

Relative Responsibilities:

There is a strict division of labor in this class. We, the instructors, will do our best to provide information in a clear and interesting fashion and to carefully describe our goals and expectations for all work in the course. We will also be available and happy to answer any questions you have or to help clarify any misunderstandings. You, the students, are responsible for earning your grade. This means only you can attend class, participate in discussions, and complete and submit assignments on time. Please note that we can only grade you on the skill you demonstrate through your work. Generate thoughtful and complete work products. Understand that marginally related fluff makes it difficult to assess your true understanding of the material/concepts. In other words, satisfactory work not only contains relevant and useful information but is devoid of irrelevant information. Similarly, strive to make relevant and cogent contributions to discussions. An essential part of your job as a student in this class is to attend all class meetings and engage with your classmates and your professors.

Group Work:

Knowledge creation is often a collaborative process. It is our hope that you will discuss your readings and assignments with each other. However, all graded work is required to be the unique product of the individual turning it in unless otherwise specified. If you are not sure about whether group work is allowed on a particular assignment, ask. When group work is allowed and you turn something in for grading, list the names of all those involved.

Attendance Policy:

As mentioned above, attendance is essential for your success in this course. Thus, we expect you to be at every class session. However, verifiably necessary absences will be accepted and the terms for making up missed material will occur on a case-by-case basis. Any graded in-class work missed without a verified absence will be graded as 0 points.

If you know of a scheduled absence (i.e. athletic trip, religious observance, etc.) please notify the professors as soon as possible and before the absence, or it will be an unexcused absence. If you plan to observe holy days that coincide with class meetings or assignment due dates, please consult with the professors in the first three weeks of classes so that we may reach a mutual understanding of how you can meet the terms of your religious observance and also the requirements for this course.

Late Policy:

Assignments turned in after the deadline will be immediately penalized 5% (half a letter grade), with prolonged tardiness resulting in further reductions. Computer problems are not a legitimate excuse for late work. As we intend to provide timely feedback so that you can learn from your work, we cannot allow extensions on assignments. Extensions will only cause work to pile up, creating a bigger hole for yourself in the future. That being said, we understand life can be complicated. As such, each student will be allowed one extension per semester, no questions asked - use it wisely! Note: extensions cannot be used on group work.

Community and Accountability:

This classroom is a community of individuals from diverse backgrounds and experiences coming together to learn. In order for this course to be a productive learning environment, it is imperative that we all treat one another with respect and courtesy. To that end, we ask that you refrain from arriving late or leaving early. Doing so is disruptive to your classmates as well as your instructors. So, too, are cell phone and other alert tones. Please make sure that all devices are turned off once you enter the classroom. Also, you may think that making a quick check on social media or reading email or other communications on your laptop during class time is discrete; it is not. Your changing facial expressions give you away every time. Students who regularly disrupt the class in any way

will have their course grade penalized at the discretion of the instructors. If you are asked to modify your behavior, please do so. As members of this community, you all are responsible for informing us if at any point if a classmate's behavior is impairing your ability to concentrate and learn in this class. This is not asking you to police one another, but to take responsibility for defending your right to a productive learning environment. Bottom line: let's all treat each other with the same respect and courtesy we would like to receive.

Academic Honesty:

As learning the policies and practices that govern honesty and integrity in academic work is a major goal of this course, we will discuss this subject at length in class. Stated briefly here:

The College presumes that your work for any course is your own contribution to that scholarly conversation, and it expects you to take responsibility for that contribution...

Students who are found responsible for committing dishonest acts, whether intentionally or through carelessness, will face outcomes usually including a lower assignment grade, lower course grade, ineligibility to graduate with honors, failure in a course, probation, suspension, or dismissal from the College.

More information on this subject can be found in Academic Policies and Procedures, under the link for "[Honesty in Academic Work](#)" on the College's website.

Accessibility:

If formal accommodations need to be made to meet your specific learning or physical abilities, please contact us soon as possible to discuss appropriate accommodations. You will also need to contact the Coordinator for Disability Resources, John Hirschman [hirschma], located on the 3rd floor of the Rosenfield Center (x3702) to provide documentation of your disability and have a conversation about your needs. You may also contact the disability office at access@grinnell.edu with questions. We will all work together to ensure that this class is as accessible and inclusive as possible.

Meditations:

This course is all about health and wellness. It seems rather hypocritical to study these subjects without also addressing our own varied health and wellness needs. We will be using short meditations at the start of class to center ourselves and create a spirit of community. We will be creating space to talk about campus events and issues. We will be recognizing the opportunities to learn, grow, relax, and have fun outside of the classrooms. We do so to honor the reality that this course – indeed, all of your courses – is just a sliver of your life. We hope that you will learn a lot about Global Medicinals in this course. We hope even more that you learn something about yourself.

Assignments & Activities

By Friday of each week we will distribute a "Weekly Preview" that outlines the readings and other assignments for the following week. Additionally, we will provide detailed written (hard copy or via P-web) instructions for all major assignments. Some of the major assignments are briefly described below.

Assignment guidelines

We will usually describe the length of written assignments in terms of the number of words so that the length is consistent regardless of font size, margins, and line spacing. For your reference, we assume 500 words is about 1 page using standard formatting. In general, 1-inch margins using Times New Roman (12 pt) or Helvetica (11 pt) with 1.5 line spacing is a good formatting choice. We may occasionally ask for hard copies of assignments with different margins to make it easier to write comments.

When submitting an assignment electronically we will give you an "assignment tag" to help us organize our documents. Please name your files in the following way: *yourlastname_assignmenttag_GLP*.

Also, when emailing us (or any person) it is helpful to use a descriptive subject title. For example, “GLP homework submission” or something like that immediately indicates what is in the message.

Initial reflection essay

This initial essay will help us understand your views on the topic and gauge your writing skills coming into course. There are two parts to this assignment. First, in 300-400 words write about your current views on complementary and alternative medicines (CAMs), whatever that means to you. Some examples are herbals and acupuncture. What do you think about them personally? Do you have personal experience with CAM? How do think our society views CAM in general? What about the established medical society? Please don't do any research on the topic. Simply explain your view clearly. Second, briefly describe your thoughts on global learning. What are the benefits/challenges of global learning? What does global learning even mean? Please post your essay on P-web (details here) before class on Wednesday, January 23rd. Use the assignment tag ‘reflection’ to name your file. For more on assignment tags and general guidelines concerning your writing assignments see the “Assignment guidelines” section of the syllabus.

Participation

This is not a lecture course. Students are expected to come to class having completed the assigned readings, thought about their content, and formulated ideas and questions for class discussion. Participation is not the same as attendance, and it is not assessed according to a strict formula. By the end of the semester, we will know whether or not you are someone who has made regular and thoughtful contributions to the classroom discussion of readings and other material. How do you as a student ensure that you get a high mark for this portion of your grade? First, you attend class regularly. You cannot participate if you are not here. Second, you complete the assigned readings and spend time thinking about them before class. Finally, you answer the questions we pose to the class, ask questions of us and your classmates based on the readings and lecture content, share your thoughts about the material, and respond to your classmates’ comments about the material. Occasionally students will be asked to gather items or complete short assignments that will be factored as part of the discussion grade.

Proposed Course Schedule

Notice: This is a proposed and approximated course schedule for major discussion topics and activities. Changes to the schedule may occur, although every attempt will be made to avoid changes to major assignment due dates. You will be informed of any significant changes ASAP. More accurate reading and assignment notices will be given via “Weekly Previews” posted on P-web.

<u>Date:</u>	<u>Major activities & assignments:</u>
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Week 1

Mon, 1/21 No class. MLK Jr. Day observation.

Wed, 1/23 **Topics:** Syllabus review. What is global learning? What is medicine?

Readings:

- 1) Excerpt from “Powerful Medicines” by Jerry Avorn.
- 2) Landorf & Doscher, “Why GLobal Learning is Foundational to Higher Education”

Assignments: Initial reflection essay due (see ‘Assignments & Activities’ in syllabus)

Week 2

Mon, 1/28 **Topics:** Heritage and scope of modern pharmacology. Different body and medicinal systems.

Readings:

- 1) “Levine’s Pharmacology”, pg. 1-21
- 2) Excerpt from William Withering’s “Account of the Foxglove and some of its Medical Uses with Practical Remarks on Dropsy and Other Diseases”.

Assignments: Reading questions.

Wed, 1/30 **Topics:** Basics of drug action in the body. Specificity of drug action.
Readings:
1) “Levine’s Pharmacology”, pg. 29-39
2) Strebhardt and Ullrich article, “Paul Ehrlich’s magic bullet concept”
Assignments: “Muddiest point” summary.

Week 3

Mon, 2/4 **Topics:** Overview process of drug discovery and development.
Readings:
1) Pandit and Soltis chapter on “Drug Discovery and Approval”
2) American Chemical Society article on “Discovery of Camptothecin and Taxol”
<https://www.acs.org/content/acs/en/education/whatischemistry/landmarks/camptothecin-taxol.html>
Assignments: Reading questions.

Wed, 2/6 **Topics:** Case studies in pharmaceutical industry.
Readings:
1) Chapter 1 from “Bitter Roots” by Osseo-Asare
2) Prescott web article “The Pill Kills: Women’s Health and Feminist Activism”
<https://nursingcliclo.org/2017/04/27/womens-health-feminist-activism-and-the-pill/>
Assignments: Reading questions.

Week 4

Mon, 2/11 **Topics:** More on Big Pharma, via discussion of “Lorenzo’s Oil” movie.
Readings:
1) Moser film review of “Lorenzo’s Oil”
2) Siva update on “Positive effects with Lorenzo’s oil”
Assignments:
1) Movie must be viewed prior to class on 2/11, either at class movie night or on own via the media center.
2) Movie viewing questions.

Wed, 2/13 **Topics:** Medical belief systems around the world.
Readings:
1) “Fundamentals of Pharmacognosy” Chapters 2, 14, and 16
2) A reading on Aboriginal medicine in Australian hospitals.
Assignments:
1) Short small group in-class presentations on “Oriental” traditions
2) First (1 of 3) ‘Reflection Essay’ due on 2/15

Week 5

Mon, 2/18 **Topics:** Introduction to Japanese history and Kampo.
Readings:
1) View timeline of Japanese history @ <https://www.visitnara.jp/history/>
2) Dharmananda’s web article on “Kampo Medicine”
<http://www.itmonline.org/arts/kampo.htm>
3) Terasawa lecture, part 1 - “Is Kampo CAM?”
4) Excerpt from Bates’s “Why Not Call Modern Medicine Alternative?”
Assignments: In-class work.

Wed, 2/20 **Topics:** Deeper look at Kampo. Overview of our Japan trip.

Readings: Terasawa lecture, part 2 - “The Concept of Sho”

Assignments:

- 1) In-class work
- 2) Attend IGE global symposium this weekend

Week 6

Mon, 2/25

Topics: Modern Kampo.

Readings:

- 1) Terasawa lecture, part 3 - “How should Kampo be evaluated?”
- 2) Burns’s chapter on "Japanese Patent Medicine Trade in East Asia"

Assignments: In-class work.

Wed, 2/27

Topics: Drug regulation and oversight in US and Japan.

Readings:

- 1) American Cancer Society web article on dietary supplements
<https://www.cancer.org/treatment/treatments-and-side-effects/complementary-and-alternative-medicine/dietary-supplements/fda-regulations.html>
- 2) Nagata & Rafizadeh-Kabe article on “Japanese pharmaceutical and regulatory environment.”
- 3) Maegawa et al. article on “Regulation of traditional herbal medicinal products in Japan.”

Assignments: In-class work on Kampo presentation.

Week 7

Mon, 3/4

Topics: Science background for Japan site visits.

Readings:

- 1) Explore “ME-BYO” web app @ <http://me-byo.com/>
- 2) Plotnikoff et al. (2011) research article on Kampo treatment for hot flashes
- 3) Andoh et al. (2017) research article on Kampo medicinal alleviation of chemotherapy side effects.

Assignments: In-class brainstorming on digital story projects

Wed, 3/6

Topics: Cultural travel training. Student Kampo presentations.

Readings: NA

Assignments: Small group Kampo presentation today.

Week 8

Mon, 3/11

Topics: Travel assignment (digital story) preparations.

Readings: TBD

Assignments: Second (2 of 3) ‘Reflection Essay’ due today

Wed, 3/13

Topics: Preparations for international travel.

Readings: TBD

Assignments: Written travel packing plan.

Spring break. Japan Trip from 3/19-3/27.

Week 9

Mon, 4/1

Topics: Japan trip recap and work on digital story projects

Readings: None

Assignments:

Wed, 4/3 **Topics:** Euro-American herbalism
Readings: “Fundamentals of Pharmacognosy,” Chp 15; “Modern Herbal Dispensatory,” 1-15.
Assignments: “Muddiest point” summary

Week 10

Mon, 4/8 **Topics:** Sharing Digital Story Projects & Reading Sources in Herbalism
Readings:
Assignments:
 1) Be prepared to share your digital story project from Japan!
 2) In class work

Wed, 4/10 **Topics:** Household Medicine in the Past
Readings: Stobart, 1-9, 29-54, 79-101
Assignments: Reading questions

Week 11

Mon, 4/15 **Topics:** “Exotic” additions and New World Medicine
Readings: TBD
Assignments:

Wed, 4/17 **Topics:** American Ginseng
Readings: “Ginseng Dreams,” 111-138, 163-188
Assignments:

Week 12

Mon, 4/22 **Topics:** Podcast Assignment Preparation
Readings: TBD
Assignments: TBD

Wed, 4/24 **Topics:** Folk Remedy Revival?
Readings: “Rescuing Folk Remedies,” and list of blogs distributed in class
Assignments: In class work

Week 13

Mon, 4/29 **Topics:** Standardization & Regulation
Readings:
 1) “Standardization of Herbal Medicines, A Review”;
 2) “Herbalist Stung by FDA Inspection,”
 3) “How to Apply for a Traditional Herbal Registration,”
 4) <https://www.gov.uk/guidance/apply-for-a-traditional-herbal-registration-thr>
Assignments: “Muddiest point” summary

Wed, 5/1 **Topics:** Podcast Assignment Preparation
Readings: TBD
Assignments: Third (3 of 3) ‘Reflection Essay’ due today

Week 14

Mon, 5/6 **Topics:** Planning & Preparation for the Podcast
Readings: TBD
Assignments: TBD

Wed, 5/8 **Topics:** Wrapping Up & Packing Up
Readings: TBD
Assignments: Written travel packing plan.

Finals week from 5/13-5/17

England trip from 5/18-5/26