



SENATE COMMITTEE ON CURRICULAR AFFAIRS
COURSE SUBMISSION AND CONSULTATION FORM

Principal Faculty Member(s) Proposing Course

Name	User ID	College	Department
Amara Solari	als66	Liberal Arts (LA)	Not Available
MARTHA BLAIR FEW	mzf52	Liberal Arts (LA)	Not Available
SIELA N. MAXIMOVA	snm104	Agricultural Sciences (AG)	Not Available

Academic Home: Liberal Arts (LA)

Type of Proposal: Add Change Drop

Message for Reviewers:

Course Designation

(ANTH 129N) Chocolate Worlds

Course Information

Cross-Listed Courses:

HIST 129N(LA) PLANT 129N(AG)

Prerequisites:

Corequisites:

Concurrents:

Recommended Preparations:

Abbreviated Title: Chocolate Worlds
Discipline: General Education
Course Listing: Inter-Domain

Special categories for Undergraduate (001-499) courses

Foundations

- Writing/Speaking (GWS)
- Quantification (GQ)

Knowledge Domains

- Health & Wellness (GHW)
- Natural Sciences (GN)
- Arts (GA)
- Humanities (GH)
- Social and Behavioral Sciences (GS)

Additional Designations

- Bachelor of Arts
- International Cultures (IL)
- United States Cultures (US)
- Honors Course
- Common course number - x94, x95, x96, x97, x99
- Writing Across the Curriculum

First-Year Engagement Program

First-Year Seminar

Miscellaneous

Common Course

GE Learning Objectives

GenEd Learning Objective: Effective Communication

GenEd Learning Objective: Creative Thinking

GenEd Learning Objective: Crit & Analytical Think

GenEd Learning Objective: Global Learning

GenEd Learning Objective: Integrative Thinking

GenEd Learning Objective: Key Literacies

GenEd Learning Objective: Soc Resp & Ethic Reason

Bulletin Listing

Minimum Credits: 3
Maximum Credits: 3
Repeatable: NO
Department with Curricular Responsibility: Anthropology (UPLA_ANTH)
Effective Semester: FA 2019
Travel Component: NO

Course Outline

A brief outline or overview of the course content:

This course will examine the legacy of chocolate throughout the course of human history, beginning with its ritualized origins among the Maya inhabitants of ancient Mesoamerica and ending with its modern cultivation and use as one of the world's luxury commodities. Interdisciplinary in design and intent, this course's lectures and assigned readings work in concert to study the interaction of diverse societies and this crop, functioning as a lens through which to examine the interaction of humans and various landscapes across time and space. We will take a broad approach, exploring cacao from its genetic structure to its role in tropical agriculture and the modern global economy. Field trips will include visits to sites such as local chocolate manufacturing facilities and cocoa research sites and laboratories.

A listing of the major topics to be covered with an approximate length of time allotted for their discussion:

Unit 1: Introduction to the Course (1.5 weeks)
- Lecture #1: Intro and Syllabus Review
- Lecture #2: A view of chocolate from the humanities (GH)
- Lecture #3: A view of cacao and chocolate from the sciences (GN)
Unit 2: Cacao Cultivation (3.5 weeks)
- Lecture #4: Visual evidence of cacao in ancient Mesoamerica (GH)
- Lecture #5: Field Trip to Penn State Cacao Plant Science Lab and Greenhouses (GN)
- Lecture #6: Scientific evidence of cacao in ancient North America (GH)
- Lecture #7: Contrasting contemporary cacao farming (GN)
- Lecture #8: Cacao genome sequencing (GN)
- Lecture #9: Cacao cultivation and climate change (GN)
- Lecture #10: Exam #1
Unit #3: Cacao and commerce (3.5 weeks)
- Lecture #11: Cacao and international development (GN)
- Lecture #12: Cacao and Chocolate: International business perspective (GN)
- Lecture #13: Chocolate and tribute in New Spain (GH)
- Lecture #14: Chocolate and Pennsylvania (GN & GH)
- Lecture #15: Chocolate and Pennsylvania continued, in class discussion (GN & GH)
- Lecture #16: Aztec chocolate trade
- Lecture #17: Exam #2
Unit #4: Chocolate and Society (3.5 weeks)
- Lecture #18: Ancient Maya ceramic production (GH)
- Lecture #19: Chocolate and Contemporary Art (GH)
- Lecture #20: Chocolate in early modern Europe (GH)
- Lecture #21: Cocoa, Chocolate and slavery (GH & GN)
- Lecture #22: Chocolate, art, and race (GH)
- Lecture #23: Chocolate and Historical Recipes
- Lecture #24: Exam #3
Unit #6: Chocolate as Consumable (3.5 weeks)
- Lecture #25: Cacao harvest and post-harvest processing (GN)
- Lecture # 26: Chocolate Manufacturing (GN)
- Lecture # 27: Chocolate and sorcery (GH)

- Lecture #28: Chocolate and health (GN)
- Lecture #29: Chocolate and cultural exchange (GH)
- Lecture #30: The Science of Flavor (GN)
- Exam #3 during Finals Week

Course Description:

This course will examine the "world" of chocolate throughout human history. First cultivated by the ancient peoples of the Americas and then manufactured by Europeans and Pennsylvanians alike, chocolate has played a privileged role as a luxury good. An interdomain course, "Chocolate Worlds" is interdisciplinary, taught by faculty in the departments of Plant Science, Anthropology, and History. As a team we investigate the how diverse societies have differentially interacted with this crop. Rather than be organized chronologically, this course will be divided into course "Units," such as the history of cocoa uses and cultivation, cocoa plant science and farming issues, chocolate making and markets, and the state of the global chocolate industry. The course's lectures and assigned readings work in concert equally directed by scientific inquiry and the queries of the social sciences and humanities. Assignments will address real world questions relating to contemporary cocoa cultivation and production, and its role in international development and social justice. As a class we will take field trips to sites such as local chocolate manufacturing facilities and cocoa research sites and laboratories. The learning objectives of this course include students' broad knowledge of cacao production, its history, and ethnical issues surrounding its cultivation in today's global economy. Additionally, students will gain an historical appreciation for the role this crop his played in diverse human societies and a scientific understanding of its genetic structure.

The name(s) of the faculty member(s) responsible for the development of the course:

| Name: Amara Solari (als66)

Title:

Phone:

Address:

Campus: UP

City:

Fax:

| Name: MARTHA FEW (mzf52)

Title: LATIN AMERICAN HISTORY

Phone: +1 814 865 1367

Address: 0108 WEAVER BUILDING

Campus:

City:

Fax:

| Name: SIELA MAXIMOVA (snm104)

Title: SR SCNTST & ASC PROF HORT

Phone: +1 814 863 7286

Address: 0421 LIFE SCIENCES BLDG

Campus:

City:

Fax:

Course Justification

Instructional, Educational, and Course Objectives:

This section should define what the student is expected to learn and what skills the student will develop.

This course demands that students engage with skills of integrative thinking as it uses a singular topic, chocolate production, as a means to illuminate the fields of anthropology, history, and plant science. In addition to disciplinary integrative thinking., student will have to compare human approaches across time and space as the course examines a diverse set of human societies. Students will also use this to expand their global learning as they will be exposed to various human societies for which they have had no previous experience.

Evaluation Methods:

Include a statement that explains how the achievement of the educational objective identified above will be assessed. The procedures for determining students' grades should be specifically identified.

Students will be assessed using the following methods (note: this is just one possibility of assessment)

- Attendance/Clicker Responses to questions answered during lecture: 10%
- four exams, each taken at the conclusion of a thematic unit: 10% each = 40%
- 1 Individual Project: 25%
- 1 Group Project: 25%

Relationship/Linkage of Course to Other Courses:

This statement should relate the course to existing or proposed new courses. It should provide a rationale for the level of instruction, for any prerequisites that may be specified, or for the course's role as a prerequisite for other courses.

This course does not link to any existing course, but will be cross listed in the departments of Plant Science, Anthropology, and

History as part of the new General Education interdomain initiative.

Relationship of Course to Major, Option, Minor, or General Education:

This statement should explain how the course will contribute to the major, option, or minor and indicate how it may function as a service course for other departments.

For each of the represented majors, this course will satisfy an elective requirement.

A description of any special facilities:

We will need a lecture hall that has a digital projector and an "in house" computer

Frequency of Offering and Enrollment:

The course will be offered during every Fall semester and the projected enrolment is 200 to 300 students of the departments of Plant Science, History, and Anthropology and others.

Alignment with General Education Objectives

EFFECTIVE COMMUNICATION – the ability to exchange information and ideas in oral, written, and visual form in ways that allow for informed and persuasive discourse that builds trust and respect among those engaged in that exchange, and helps create environments where creative ideas and problem-solving flourish.

KEY LITERACIES – the ability to identify, interpret, create, communicate and compute using materials in a variety of media and contexts. Literacy acquired in multiple areas, such as textual, quantitative, information/technology, health, intercultural, historical, aesthetic, linguistic (world languages), and scientific, enables individuals to achieve their goals, to develop their knowledge and potential, to lead healthy and productive lives, and to participate fully in their community and wider society.

CRITICAL AND ANALYTICAL THINKING – the habit of mind characterized by comprehensive exploration of issues, ideas, artifacts, and events before accepting or formulating a conclusion. It is the intellectually disciplined process of conceptualizing, applying, analyzing, synthesizing, and/or evaluating information gathered from, or generated by, observation, experience, reflection, reasoning, or communication, as a guide to belief and action.

INTEGRATIVE THINKING – the ability to synthesize knowledge across multiple domains, modes of inquiry, historical periods, and perspectives, as well as the ability to identify linkages between existing knowledge and new information. Individuals who engage in integrative thinking are able to transfer knowledge within and beyond their current contexts.

CREATIVE THINKING – the capacity to synthesize existing ideas, images, or expertise in original ways and the experience of performing, making, thinking, or acting in an imaginative way that may be characterized by innovation, divergent thinking, and intellectual risk taking.

GLOBAL LEARNING – the intellectually disciplined abilities to analyze similarities and differences among cultures; evaluate natural, physical, social, cultural, historical, and economic legacies and hierarchies; and engage as community members and leaders who will continue to deal with the intricacies of an ever-changing world. Individuals should acquire the ability to analyze power; identify and critique interdependent global, regional, and local cultures and systems; and evaluate the implications for people's lives.

SOCIAL RESPONSIBILITY AND ETHICAL REASONING – the ability to assess one's own values within the social context of problems, recognize ethical issues in a variety of settings, describe how different perspectives might be applied to ethical dilemmas, and consider the ramifications of alternative actions. Individuals should acquire the self-knowledge and leadership skills needed to play a role in creating and maintaining healthy, civil, safe, and thriving communities.

What component(s) of the course will help students achieve the General Education Learning Objectives covered in the course? Provide evidence that students in the course have adequate opportunities to achieve the identified learning objectives.

This is intended as an interdomain course, as it utilizes the disciplinary methods taken from the natural sciences (Plant Science) and the humanities (History and Anthropology), ensuring that students will be able to hone their skills of integrative thinking. By the end of this course, students will have amassed a wide knowledge of the multiple ways cacao and chocolate intersect with human history and experience. They will have developed a knowledge of the historical, scientific, anthropological, and artistic context of chocolate consumption and production on a global scale, thus their procurement of expanded global learning. Specific attention will be paid to recent scientific queries into the plant's genetic structure and its effect on sustainable land use and food production. Enrolled students will hone a variety of analytical skills, including gaining experience comparing and contrasting these multiple disciplinary approaches. Their assignments will have students engage with primary source material and they will learn to critically construct a persuasive argument using convincing evidence from class lectures, readings, and their own independent research.

Integrative Thinking: Students will hone this skill by having to approach a singular topic via multiple academic and disciplinary lens simultaneously. They will also have to connect related sociological issues to diverse human societies across time and place, connecting how different human populations approached and solved the same cultural problems.

Global Learning: Students will hone this skill due to the course's diverse topics, which are global in nature. They will critically assess how various human groups have utilized cacao as an elite commodity and to what end. This will most likely be best witnessed towards the end of the course when the students work in small groups to produce an educational website.

How will students be assessed to determine their attainment of the Learning Objective(s) of General Education covered in this course? This assessment must be included as a portion of the student's overall performance in this course.

Students will be assessed using two traditional exams, one taken at the midterm and the other at the end (final) of the course. These will be multiple choice and short answer. Students will also be responsible for a series of mini-essays (2-3 pages) that address various aspects of the course, most significantly, chocolate's history and modern global marketing. These assignments will address real world questions related to contemporary cocoa cultivation and production, and its role in international development and

social justice.

Integrative Thinking: This skill will be based assessed within the context of the exams, where students will be queried about the divergent approaches to chocolate cultivation.

Global Learning: Student assessment of their global learning will become clear in the context of their written assignments, but also during class discussions.

General Education Domain Criteria

General Education Designation: Inter-Domain

GH Criteria

Explain the methods of inquiry in humanities fields and describe how the contributions of these fields complement inquiry in other areas

Demonstrate competence in critical thinking about topics and texts in the humanities through clear and well-reasoned responses

Critically evaluate texts in the humanities— whether verbal, visual, or digital— and identify and explain moral or ethical dimensions within the disciplines of the humanities

Demonstrate knowledge of major cultural currents, issues, and developments through time, including evidence of exposure to unfamiliar material that challenges their curiosity and stretches their intellectual range

Become familiar with groups, individuals, ideas, or events that have influenced the experiences and values of different communities

What components of the course will help students achieve the domain criteria selected above?

This course will ask students to comparatively analyze a range of human experience, specifically through the lens of chocolate cultivation, production, and consumption. To do so, they will use the methods of humanistic inquiry, and specifically analyze various primary source material (texts, images, material culture, and film) produced by divergent cultural groups, including 16th and 17th-century Spaniards living in the New World, ancient Mayas and Aztecs, 19th-century Europeans, and modern peoples of the Caribbean, West Africa, and Indonesia. This human diversity will inevitably force students to rethink what it means to be human throughout the course of history, critically evaluating through a comparative lens how these societies engaged various ethnics in regards to plant cultivation .

GN Criteria

Explain the methods of inquiry in the natural science fields and describe how the contributions of these fields complement inquiry in other areas

Construct evidence-based explanations of natural phenomena

Demonstrate informed understandings of scientific claims and their applications

Evaluate the quality of the data, methods, and inferences used to generate scientific knowledge

Identify societal or philosophical implications of discoveries in the natural sciences, as well as their potential to address contemporary problems

What components of the course will help students achieve the domain criteria selected above?

The units on genetics force students to construct evidence-based explanations for natural phenomena as they will be required to use their knowledge of dna to explain exhibited external traits such as resistance to pests. They will asked to evaluate the quality of data used to generate scientific knowledge in regards to the implementation of these species cultivation on a global scale. For this purpose the students will be required to read relevant scientific literature, engage with scientific discussions, exploration and data analysis to "demonstrate informed understandings" of their new knowledge and their own ideas through different forms of oral and written communication.

Integrative Studies

Explain how the intellectual frameworks And methodologies of the two Knowledge Domains will be explicitly addressed in the course and practiced by the students.

While the disciplines and approaches of the humanities and the natural sciences could be vastly different, spanning from more interpretative methodologies of the humanities to more data oriented and empirical methodologies of the natural sciences, the ultimate goals of these disciplines are to understand, appreciate and improve the human condition and the relationship of humans with their environment. Thus to the goal of this course is to provide a basic understanding of the array of approaches that could be taken across different knowledge domains in the context of the history and science of chocolate. Ultimately, the journey into the cacao and chocolate's diverse role in the history of human experience, guided by expert instructors working together as a team, will apply methods taken directly and evenly from the sciences and the humanities, leading to understanding of the strengths and importance of the humanities and sciences methodologies of investigation and their integration. To develop the necessary skills to make informed decisions based on scientific evidence and to be able to construct arguments using persuasive evidence, the students will be led through the process of reading and evaluating quality scientific literature on the topics of cacao and chocolate, they will be engaged with scientific discussions, and will perform simple data analysis. Considering that writing and development of writing skills is fundamental to all academic work, the class will include as a requirement the preparation of short scientific reports following the literature evaluation. In addition, the course will include experiential learning components where students will be able to apply their knowledge and conceptual understanding to solving a problem related to the class topics. To ascertain the more "humanistic" sides of chocolate history, students will be asked to engage in comparative cultural awareness. They will examine period texts as a means to more fully comprehend historical epistemologies and use of evidence, with a view to understand cultural values associated with chocolate in Amerindian and European history. They will also engage with visual analysis of historical images/objects and modern images used for chocolate marketing.

Demonstrate that each Of the two domains will receive approximately equal attention, providing evidence from course topics, assignments, or other course components, and that students will integrate material from both domains.

Each domain will receive approximately half of the courses dedicated lectures.

Introduction to the Course (GN and GH)
A view of chocolate from the humanities (GH)
A view of chocolate from the sciences (GN)
Visual evidence of cacao in the ancient Americas (GH)
Scientific evidence of cacao in the ancient Americas (GH)
Field Trip to Penn State Cacao Lab (GN)
Modern cacao farming (GN)
Cacao genome sequencing (GN)
Cacao cultivation and the ethics of climate change (GN and GH)
Cacao and international development (GN)
Chocolate and tribute (GH)
Chocolate Tourism (GH)
Chocolate and Pennsylvania (GN & GH)
Chocolate and Pennsylvania continued, in class discussion (GN & GH)
Aztec chocolate trade (GH)
Ancient Maya ceramic production (GH)
Chocolate and Contemporary Art (GH)
Chocolate in early modern Europe (GH)
Cocoa, Chocolate and slavery (GN and GH)
Chocolate, art, and race (GN and GH)
Chocolate and Historical Recipe (GH)
Cacao harvest and post-harvest processing (GN)
Chocolate Manufacturing (GN and GH)
Chocolate and sorcery (GH)
Chocolate and health (GN and GH)
Chocolate and cultural exchange (GH)
The Science of Flavor (GN)

Briefly explain the staffing plan. Given that each Inter-Domain course is approved for two Knowledge Domains, it will be taught by an instructor (or instructional team) with appropriate expertise in both domains.

This course will be taught by professors from three departments: Plant Science, Anthropology, and History. As stated above, this course is organized thematically with even distribution between the participating faculties' areas of expertise. Drs. Few and Solari will evenly share the cultural and historical aspects of the course and Dr. Maximova will oversee the scientific components.

Staffing experience and knowledge relevant to instruct the course:

1. Dr. Amara Solari has been teaching pre-Columbian cultural production at Penn State for the last nine year. Her research has focused on many aspects of cultural exchanges of the "Encounter" between the Old and New Worlds of the 16th century. As a Maya scholar, she teaches and has presented papers on the intersection of chocolate cultivation and ritual practices of ancient Mesoamerican people. Most recently, she has been researching the continued use of chocolate in medical practices of the early modern period.
2. Dr. Martha Few is Professor of Latin American history and Women's, Gender, and Sexuality Studies at Penn State University. Since 1997, she has been teaching courses on the ethnohistory of Indigenous peoples during Spanish colonial rule through the lenses of medicine and public health, gender and sexuality, and environmental history. She has published her research on the environmental history of chocolate and its production and use in multi-cultural colonial societies in her first monograph and in associated journal articles. More recently, she has been researching the intersections of food history and animal studies to explore how colonial Indigenous peoples dealt with insects and threats to New World food production, including cacao, corn, indigo and other key agricultural crops.
3. Dr. Siela Maximova has been teaching plant sciences and biotechnology at Penn State since 1999. Additionally, since 1998, she has been conducting an active research on cacao, the chocolate tree at Penn State and in cocoa-producing countries in Latin America, Asia and Africa. Her research is focused on the genetic improvement of the cacao tree and optimization of the cacao growing practices. Currently Dr. Maximova is the project director from Penn State for "Cacao for Peace" project in Colombia and "Center for Innovation of Cacao" in Peru. Dr. Maximova is uniquely qualified to instruct this course because of her long-time experience in working with all actors of the cacao value chain, participation in a variety of interdisciplinary research projects, extensive knowledge of all the aspects of cacao production and chocolate manufacturing and her extensive teaching experience.

Describe the assessments that will be used to determine students' ability to apply integrative thinking.

Students will be assessed using four mini exams, each taken at the termination of each of the course's units. These will be multiple choice and short answer, thus evaluating them on the more objective portions of the course's knowledge production, the science themes. Students will also be responsible for a an individual essay and a group assignment that address various aspects of the course, most significantly, chocolate's history, and modern marketing. These assignments will address real world questions related to contemporary cocoa cultivation and production, and its role in international development and social justice. The written assignments will serve as our method of assessing the student's mastery over the humanistic aspects of the course.

Attendance/Clicker Responses
10%

Exam #1
10%
Exam #2
10%
Individual Assignment
25%
Exam #3
10%
Group Assignment
25%
Exam #4
10%

General Education Designation Requirements

Bachelor Of Arts Requirements:

- BA: Natural Sciences
- BA: Other Cultures
- BA: Foreign/World Lang (12th Unit)
- BA: Humanities
- BA: Social and BA: Behavioral Sciences
- BA: Arts
- BA: Quantification
- BA: Foreign/World Lang (All)

This course satisfies the GE for natural sciences as nearly one half of its course material examines genetic components of cacao species and the manipulation of dna for various cultivated ends. It is a humanities because we also engage with "habits of minds" from diverse human societies, most importantly those of the ancient Amerindian world, the cultural groups responsible for chocolates initial cultivation and its rise to the forefront of world's economy. Because of the course's engagement with diverse historical societies (Aztecs, Mayas, Olemcs, Taino, various peoples of African decent), it clearly exemplifies the university's requirement of "other cultures."

Campuses That Have Offered () Over The Past 4 Years

semester	AB	AL	BK	BR	BW	CR	DS	ER	FE	GA	GV	HB	HN	HY	LV	MA	NK	PC	SH	SL	UP	WB	WC	WS	XC	XP	XS	YK
----------	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

Potential Impact

Pre-Requisites

is listed as a pre-requisite or concurrent course for the following courses:

Note: Not all courses may be listed here, due to lionpath requirement incompleation.

No pre-requisites or concurrent courses found

Review History

This section represents all consultation history that has occurred on this proposal

Legend



Approve



Rejected



Waiting Review



User Action Required



Pending Action(s)



Moved to Rejected Status



Approved

(#) - Review Order Sequence Number

Consultation



Recipient Name: [BARBARA WIENS-TUERS](#)

Department: Altoona Administration

Position: Consultation

Campus: ALTOONA CAMPUS

Title: ASSOC PROF ECONOMICS

Chocolate Worlds

Plant Science/History/Anthropology 197
Siela Maximova, Martha Few, Amara Solari



Course Description

This course will examine the legacy of chocolate throughout the course of human history, beginning with its ritualized origins among the Maya inhabitants of ancient Mesoamerica and ending with its modern cultivation as one of the **world's** luxury commodities. Interdisciplinary in design and intent, this **course's** lectures and assigned readings work in concert to study the interaction of diverse societies and this crop, functioning as a lens through which to examine the interaction of humans and various landscapes across time and space. As such, the course will be equally directed by scientific inquiry and the queries of the social sciences and humanities. Rather than be organized chronologically, this course will be divided into course "Units," such as the history of cocoa uses and cultivation, cocoa plant science and farming issues, chocolate making and markets, and the state of the global chocolate industry. Assignments will address real world questions relating to contemporary cocoa cultivation and production, and its role in international development and social justice. Field trips will include visits to sites such as local chocolate manufacturing facilities and cocoa research sites and laboratories.

Course Objectives

- To expand students' knowledge of the historical development of cacao as a cultivated crop
- For students to appreciate the role cacao played in the emergence of a global economy in the early modern world
- An understanding of how diverse human actors, from different places and time periods, have differentially utilized the cultivation, production, and consumption of chocolate to advertise social status.

General Education Learning Objectives

INTEGRATIVE THINKING

- By the end of this course students will be able to synthesize knowledge of cacao cultivation, production, and historical usage across time and space

GLOBAL LEARNING

- By the end of this course students will have grasped a firmer understanding of cacao's international role in global politics and the economy, today and in historical time periods.

Texts and Readings

Multiple readings are required for this course; these are located under the “Files” tab in Canvas in a folder called “Course Readings.” Please come to class with a copy of the day’s assigned reading.

Expectations for Student Conduct

Since material will be discussed that is not covered in the assigned reading it is imperative that you attend all lectures. We ask that you arrive on time, remember to turn off and put away your cell phone, and remain seated until the completion of each lecture. If you need to leave early or miss a lecture, please discuss your situation with one of the 3 main instructors or a TA prior to the start of class. If you have any questions, please email the TAs first who will forward the message on to the relevant professor to answer. When corresponding with the TAs or the class instructors via email, remember that this is an academic exchange and treat it accordingly. Please refrain from using text messaging-style script and remember to include a salutation. Laptop computers will be allowed during lecture until it becomes obvious that students are engaging in non-scholarly activities; if this happens, all students will be required to take hand written notes. No texting. Seriously. If caught, you will be asked to leave the class. Moreover, we will *deduct one percentage* point from your *final* grade.

Course Requirements

To evaluate student success in this course, grades will be based on class attendance, three in class exams, and two assignments

The grade breakdown is as follows:

Attendance/Clicker Responses	10%
Exam #1	10%
Exam #2	10%
Individual Assignment	25%
Exam #3	10%
Group Assignment	25%
Exam #3	10%

Attendance/Clicker Responses : Students are required to purchase a clicker from the Penn State bookstore and bring it to class for every lecture. During the course of the lecture the professor will ask for students “clicked” responses; this will serve as a form of attendance taking.

Exams : At the end of each Unit, we will have a multiple choice/fill in the blank exam. The material on each exam will be reviewed in lecture during the week prior to the scheduled exam.

Assignments : During the course of the semester, students will complete one individual assignment and one group assignment. Final grades will be determined as follows.

- A = 100-94.0%
- A- = 93.9-90.0%
- B+ = 89.9-87.0%
- B = 86.9-84.0%
- B- = 83.9-80.0%
- C+ = 79.9-77.0%
- C = 76.9-70.0%
- D = 69.9-60.0%
- F = 59.9-0

Penn State’s Academic Integrity Statement
--

“Penn State defines academic integrity as the pursuit of scholarly activity in an open, honest and responsible manner. All students should act with personal integrity, respect other students’ dignity, rights and property, and help create and maintain an environment in which all can succeed through the fruits of their efforts (Faculty Senate Policy 49-20). Dishonesty of any kind will not be tolerated in this course. **Dishonesty includes, but is not limited to, cheating, plagiarizing, fabricating information or citations, facilitating acts of academic dishonesty by others, having unauthorized possession of examinations, submitting work of another person or work previously used without informing the instructor, or tampering with the academic work of other students.** Students who are found to be dishonest will receive academic sanctions and will be reported to the University’s Judicial Affairs office for possible further disciplinary sanctions.”

Any violation of this policy will result in a failing grade for the entire course.

Statement Regarding Students with Disabilities

Accommodations are collaborative efforts between students, faculty and the Office for Disability Services (ODS). Students with accommodations approved through ODS are responsible for contacting the faculty member in charge of the course prior to or during

Course Lecture/Reading Schedule

Introductions to the Course

Lecture #1: Introduction to the Course

Reading: None

Lecture #2: A view of chocolate from the humanities

Reading: Melissa Swindell, "George Washington Drank Hot Chocolate," Smithsonian Museum

<http://americanhistory.si.edu/blog/2012/12/george-washington-drank-hot-chocolate.html>

Lecture #3: A view of cacao and chocolate from the sciences

Reading: None

Unit 1: Cacao Cultivation

Lecture #4: Visual evidence of cacao in ancient Mesoamerica

Reading: Excerpt from the Madrid Codex

Lecture #5: Field Trip to Penn State Cacao Plant Science Lab and Greenhouses

Reading: None

Lecture #6: Scientific evidence of cacao in ancient North America

Reading: Crown PL, and Hurst WJ, "Evidence of cacao use in the Prehispanic American Southwest." *Proc Natl Acad Sci USA* 106: 7 (2009):2110-2113

Lecture #7: Contrasting contemporary cacao farming

Reading: <http://plantscience.psu.edu/research/labs/guiltinan>

Lecture #8: Cacao genome sequencing

Guest Lecture: Mark Guiltinan (Professor of Plant Science)

Reading:

http://www.genomenewsnetwork.org/resources/whats_a_genome/Chp2_2.shtml

Lecture #9: Cacao cultivation and climate change

Reading: Peter Läderach, "Predicting the Impact of Climate Change on Cocoa Growing Regions in Ghana and Cote d'Ivoire"

https://www.eenews.net/assets/2011/10/03/document_cw_01.pdf

Lecture #10: Exam #1

Unit 2: Cacao and commerce

Lecture #11: Cacao and international development

Reading: <http://news.psu.edu/story/464807/2017/05/15/research/coca-cacao>

Lecture #12: Cacao and Chocolate: International business perspective

Guest Lecture: Daniel Azzara (Professor of Agribusiness)

Reading: IBIS World Industry Report: Global Candy & Chocolate Manufacturing, 2017

Lecture #13: Chocolate and tribute in New Spain

Reading: Janine Gasco, "Soconusco Cacao Farmers Past and Present: Continuity and Change in an Ancient Way of Life," 322-337.

Lecture #14: Chocolate and Pennsylvania

Field Trip: Hersey Chocolate Research Center and Chocolate World

Reading: D'Antonio, Michael D. 2006. Hershey: Milton S. Hershey's Extraordinary Life of Wealth, Empire, and Utopian Dreams. pp. 106-126

Lecture #15: Chocolate and Pennsylvania continued, in class discussion

Reading: Brenner, Joel. 2000. The Emperors of Chocolate: Inside the Secret World of Hershey and Mars. Chapters 5, 13 pp. 49-69, 179- 194

Lecture #16: Aztec chocolate trade

Reading: Excerpt from the *Codex Mendoza*

Lecture #17: Exam #2

Unit 3: Chocolate and Society

Lecture #18: Ancient Maya ceramic production

Reading: "The Rio Azul Cacao Pot: Epigraphic Observations on the Function of a Mayan Ceramic Vessel." *Antiquity* 62 (1988), 153-157 and John S. Henderson, Rosemary A. Joyce, Gretchen R. Hall, W. Jeffrey Hurst and Patrick E. McGovern. "Chemical and archaeological evidence for the earliest cacao beverages." *Proceedings of the National Academy of Science* 104 (2007) 18937-40.

Lecture #19: Chocolate and Contemporary Art

Guest Lecturer: Sarah Rich (Professor of Art History)

Reading: "The Art of Chocolate (and Soap)" at Smithsonian.com:

<http://www.smithsonianmag.com/smithsonian-institution/art-chocolate-and-soap-180954180/>

Lecture #20: Chocolate in early modern Europe

Reading: Kathryn Sampeck, The Color of its Countries: Chocolate, Clothing, and Personhood in the Eighteenth Century

<https://kathrynsampeck.wordpress.com/2013/09/27/the-color-of-its-countries-chocolate-clothing-and-personhood-in-the-eighteenth-century/>

Lecture #21 Cocoa, Chocolate and slavery

Guest Lecture: Mark A. Brennan , Professor and UNESCO Chair in Community, Leadership, and Youth Development

Reading: watch: The Dark Side of Chocolate. 2010. Miki Mistrati, dir.
<https://www.youtube.com/watch?v=7Vfbv6hNeng>
Higgs, Catherine. 2012. Chocolate Islands: Cocoa, Slavery, and Colonial Africa. pp. 133-165

Lecture #22: Chocolate, art, and race

Reading: Ilona Katzew, "The Rise of Casta Painting: Exoticism and Creole Pride," 95-109.

Lecture #23: Chocolate and Historical Recipes

Reading: Ryan Kashanipour, "Thomas Gage's Chocolate Recipe and Regimen of 1655," "The Recipes Project," <http://recipes.hypotheses.org/7589>

Lecture #24: Exam #3

Unit 4: Chocolate as Consumable

Lecture #25: Cacao harvest and post-harvest processing

Reading: None

Lecture # 26: Chocolate Manufacturing

Guest Lecture: Gregory Ziegler (Professor of Food Science)

Reading: Beckett's Industrial Chocolate Manufacture and Use, 5th Edition
Steve T. Beckett (Editor), Mark S. Fowler (Editor), Gregory R. Ziegler (Editor)
ISBN: 978-1-118-78014-5; Chapter 2: Cocoa beans: from tree to factory (Mark S. Fowler and Fabien Coutel)

Lecture # 27: Chocolate and sorcery

Reading: Martha Few "Chocolate, Sex, and Disorderly Women in Seventeenth- and Eighteenth-Century Guatemala," (lead article), *Ethnohistory* 52:4 (fall 2005), 673-687.

Lecture #28: Chocolate and health

Guest Lecture: Joshua D. Lambert (Associate Professor of Food Science)

Reading: Nutritional and health aspects of chocolate Beckett's Industrial Chocolate Manufacture and Use, 5th Edition. pp. 521 - 531

Lecture #29: Chocolate and cultural exchange

Reading: Norton, Marcy. 2006. "Tasting Empire: Chocolate and the European Internalization of Mesoamerican Aesthetics." *The American Historical Review* 111 (3): 660-691

Lecture #30: The Science of Flavor

Guest Lecture: Helene Hopfer (Assistant Professor of Food Science)

Reading: Afoakwa, Emmanuel O. 2016. "Sensory Character and Flavour Perception of Chocolates." In: *Chocolate Science and Technology*, p. 202-222

Exam #3 during Finals Week