Term Information

Effective Term	Autumn 2026

General Information

Course Bulletin Listing/Subject Area	Food, Agricul & Bio Engineer
Fiscal Unit/Academic Org	Food, Agric & Biological Eng - D1123
College/Academic Group	Engineering
Level/Career	Undergraduate
Course Number/Catalog	3200.01S
Course Title	Cultivating Communities: Engineering for Food Security and Urban Sustainability
Transcript Abbreviation	Eng Food Sec Sust
Course Description	This course examines the intersection of engineering, food security, urban sustainability, and the role of community organizations in addressing local challenges. Through lectures, readings, discussions, field visits, and group projects, students will apply engineering design principles to develop solutions for small-scale farms and urban agriculture in collaboration with community partners.
Semester Credit Hours/Units	Fixed: 4

Offering Information

Length Of Course	14 Week, 12 Week
Flexibly Scheduled Course	Never
Does any section of this course have a distance education component?	No
Grading Basis	Letter Grade
Repeatable	No
Course Components	Laboratory, Lecture
Grade Roster Component	Lecture
Credit Available by Exam	No
Admission Condition Course	No
Off Campus	Never
Campus of Offering	Columbus, Lima, Mansfield, Marion, Newark, Wooster

Prerequisites and Exclusions

Prerequisites/Corequisites	None
Exclusions	
Electronically Enforced	Yes

Cross-Listings

Cross-Listings

Subject/CIP Code

Subject/CIP Code	14.0301
Subsidy Level	Baccalaureate Course
Intended Rank	Sophomore, Junior, Senior

Requirement/Elective Designation

Sustainability; Service-Learning

The course is an elective (for this or other units) or is a service course for other units

Course Details

Course goals or learning objectives/outcomes

- Goal 1:Understand the interdisciplinary nature of food security and urban sustainability challenges.
- As a result, students will be able to:

  1.1 Explain the key concepts of food systems, sustainability, and community engagement.
- I.2 Identify the roles of engineering in addressing food security and sustainability.
- Course Goal 2: Apply engineering design principles to real-world problems in urban agriculture.

  2.1 Develop design solutions for urban farming systems based on community needs.
- 2.2 Evaluate the feasibility and sustainability of proposed engineering solutions.
- Course Goal 3: Engage in collaborative, community-based learning experiences.
  - 3.1 Demonstrate effective teamwork and communication in interdisciplinary settings.
- o 3.2 Reflect on personal and group contributions to community-engaged projects.
- Course Goal 4: Develop critical thinking and problem-solving skills through experiential learning.
  - 4.1 Analyze complex systems and propose evidence-based interventions
- o 4.2 Integrate knowledge from multiple disciplines to address sustainability challenges.
- Course Goal 5: Communicate technical and non-technical information effectively.
  - 5.1 Prepare and deliver presentations tailored to diverse audiences.
- o 5.2 Write clear, persuasive grant proposals and technical reports.

Content Topic List

- Background/Context Phase
  - Human-centered design: mindsets
  - Growing and producing food
  - Food system and food security
- Community partners
  - Food as medicine
  - Human-centered design: inspiration
  - Partnering with college campuses: community perspectives
- Food politics
  - Growing justice
  - Food justice approaches
  - Role of the outsider
- Teamwork, organization, goal setting
  - Secondary research
  - Small-scale farm design
  - Small-scale farm systems and tech #1
  - Small-scale farm systems and tech #2
- Grant proposal development
  - Research strategies and feedback

Sought Concurrence Yes

Attachments

- submission-sustainability - 3200.01S.pdf: Support doc

  (Other Supporting Documentation. Owner: Trefz,Kelvin Eugene)

- service-learning-inventory - 3200.01S.pdf: Support doc

  (Other Supporting Documentation. Owner: Trefz,Kelvin Eugene)

- Concurrence Request FABENG 3200_01S Cultivating Communities.docx: Support doc

  (Concurrence. Owner: Trefz,Kelvin Eugene)

- ACEL Re_ Concurrence Request_ FABENG 3200.01S Cultivating Communities_ Engineering for Food Security and Urban Sustainabili.docx: ACEL

  (Concurrence. Owner: Trefz,Kelvin Eugene)

- CoPH RE_ Concurrence Request_ FABENG 3200.01S Cultivating Communities_ Engineering for Food Security and Urban Sustainabili.docx: Support CoPH

  (Concurrence. Owner: Trefz,Kelvin Eugene)

- FCOB Re_ Concurrence Request_ FABENG 3200.01S Cultivating Communities_ Engineering for Food Security and Urban Sustainabili.docx: FCOB

  (Concurrence. Owner: Trefz,Kelvin Eugene)

- FST RE Concurrence Request FABENG 3200_01S Cultivating Communitie Engineering for Food Security and Urban Sustainability.docx: FST

  (Concurrence. Owner: Trefz,Kelvin Eugene)

- Geography RE_ Concurrence Request_ FABENG 3200.01S Cultivating Communities_ Engineering for Food Security and Urban Sustain.docx: Geography

  (Concurrence. Owner: Trefz,Kelvin Eugene)

- HCS FABENG 3200.01S concurrence.docx: HCS

  (Concurrence. Owner: Trefz,Kelvin Eugene)

- MCoL RE_ Concurrence Request_ FABENG 3200.01S Cultivating Communities_ Engineering for Food Security and Urban Sustainabili.docx: MCoL

  (Concurrence. Owner: Trefz,Kelvin Eugene)

- Sample Concurrence Request_ FABENG 3200.01S Cultivating Communities_ Engineering for Food Security and Urban Sustainabilit.docx: Sample

  (Concurrence. Owner: Trefz,Kelvin Eugene)

- SENR Re_ Concurrence Request_ FABENG 3200.01S Cultivating Communities_ Engineering for Food Security and Urban Sustainabili.docx: SENR

  (Concurrence. Owner: Trefz,Kelvin Eugene)

- FABENG 3200.01S Syllabus SB1 ADA 20250930.docx: Syllabus

  (Syllabus. Owner: Trefz,Kelvin Eugene)

Comments

- Sent back, per 10/27/2025 email request from Jeanne Osborne. *(by Brower,Sarah Elizabeth on 10/27/2025 11:37 AM)*
- Revise as per COAA via email message 25 September 2025

Hold at Department for concurrences to be attached per conversation 21 August 2025

Revise as per email message 8 August 2025

Revise as per discussion 11 June 2025 *(by Osborne,Jeanne Marie on 09/25/2025 10:12 AM)*

Workflow Information

Status	User(s)	Date/Time	Step
Submitted	Trefz,Kelvin Eugene	01/21/2025 03:03 PM	Submitted for Approval
Approved	Chen,Qian	01/21/2025 03:56 PM	Unit Approval
Revision Requested	Quinzon-Bonello,Rosario	02/05/2025 10:03 AM	Ad-Hoc Approval
Submitted	Trefz,Kelvin Eugene	02/10/2025 12:44 PM	Submitted for Approval
Approved	Chen,Qian	02/10/2025 01:10 PM	Unit Approval
Approved	Quinzon-Bonello,Rosario	04/22/2025 01:21 PM	Ad-Hoc Approval
Revision Requested	Osborne,Jeanne Marie	06/12/2025 11:28 AM	College Approval
Submitted	Trefz,Kelvin Eugene	06/30/2025 02:48 PM	Submitted for Approval
Approved	Chen,Qian	07/01/2025 09:58 AM	Unit Approval
Approved	Quinzon-Bonello,Rosario	07/08/2025 11:40 AM	Ad-Hoc Approval
Revision Requested	Osborne,Jeanne Marie	08/08/2025 11:13 AM	College Approval
Submitted	Trefz,Kelvin Eugene	08/19/2025 09:40 AM	Submitted for Approval
Approved	Chen,Qian	08/19/2025 12:57 PM	Unit Approval
Approved	Quinzon-Bonello,Rosario	08/20/2025 10:09 AM	Ad-Hoc Approval
Revision Requested	Osborne,Jeanne Marie	08/21/2025 10:15 AM	College Approval
Submitted	Trefz,Kelvin Eugene	09/17/2025 04:03 PM	Submitted for Approval
Approved	Chen,Qian	09/17/2025 04:47 PM	Unit Approval
Approved	Quinzon-Bonello,Rosario	09/18/2025 10:57 AM	Ad-Hoc Approval
Revision Requested	Osborne,Jeanne Marie	09/25/2025 10:12 AM	College Approval
Submitted	Trefz,Kelvin Eugene	10/09/2025 11:54 AM	Submitted for Approval
Approved	Chen,Qian	10/09/2025 12:16 PM	Unit Approval
Approved	Quinzon-Bonello,Rosario	10/09/2025 04:47 PM	Ad-Hoc Approval
Approved	Osborne,Jeanne Marie	10/10/2025 08:58 AM	College Approval
Approved	Reed,Kathryn Marie	10/16/2025 06:08 PM	OAA Approval
Approved	Sweigart,Claire GERMAINE	10/24/2025 10:56 AM	Ad-Hoc Approval
Revision Requested	Brower,Sarah Elizabeth	10/27/2025 11:37 AM	OUR Approval
Submitted	Trefz,Kelvin Eugene	10/27/2025 12:00 PM	Submitted for Approval
Approved	Chen,Qian	10/27/2025 06:43 PM	Unit Approval
Approved	Quinzon-Bonello,Rosario	10/28/2025 09:56 AM	Ad-Hoc Approval
Approved	Osborne,Jeanne Marie	10/28/2025 12:07 PM	College Approval
Pending Approval	Jenkins,Mary Ellen Bigler Neff,Jennifer Vankeerbergen,Bernadette Chantal Steele,Rachel Lea	10/28/2025 12:07 PM	ASCCAO Approval

Cultivating Communities: Engineering for Food Security and Urban Sustainability Syllabus

FABENG 3200.01S AU 2026

Course Information

- **Course times and location:** Tuesdays and Thursdays, 10:20 a.m.-11:40 a.m. Lecture (80 minutes min.), Monday Laboratory or Field Work 10:05 to 11:55.
- **Credit hours:** 4
- **Mode of delivery:** In Person

Instructor

- **Name:** Dr. Chris Ratcliff
- **Email:** ratcliff.21@osu.edu
- **Phone Number:** 614-292-2572
- **Office location:** Room 3042 Smith Laboratory

- **Office hours:** To be posted on course Carmen page
- **Preferred means of communication:**
  - My preferred method of communication for questions is **email.**
  - My class-wide communications will be sent through the Announcements tool in CarmenCanvas. Please check your notification preferences (go.osu.edu/canvas-notifications) to be sure you receive these messages.

Course Prerequisites/Co-Requisites

None

Course Description

This course explores the intersection of engineering, food security, and urban sustainability, aiming to provide a detailed understanding of food security challenges and the role of community organizations. Through a combination of lectures, readings, discussions, field visits, and group projects, students will learn to apply design principles to develop solutions for small-scale farms and urban agriculture, working closely with community partners.

As a service-learning course, an important part of this course involves engaging with community partners at off-campus sites in Columbus, OH. These engagements are designed to be meaningful for students, and to be sequential, starting with introductions, followed by tours and analysis, and culminating in volunteer work. The instructor will work with students to arrange transportation options. While participation in these visits is crucial for the student experience, the instructor acknowledges that students with significant out-of-class commitments (e.g., caregiving, work, student athletics) may not be able to attend every engagement. The instructor will do what it takes to make accommodations; it is critical to the success of courses like this that it is accessible to all students. Visits will be recorded, and make-up work will be provided for those unable to participate. For more details, refer to the "Field Visit Expectations" section.

The goal of this course is to attract a diverse group of students by appealing to different disciplines. Our outreach strategy involves collaborations with student organizations and hosting seminars with community partners to engage a broad audience. We emphasize the universal impact of food and farming on everyone's lives, underscoring that a diversity of perspectives enriches the learning experience for all participants.

Throughout the course, students will **conduct field visits** to local community gardens and urban farms, observing and analyzing sustainable agricultural practices. They **will reflect on where their food comes from**, their direct connections to environmental systems, and their family's history with food and farming. By understanding the fundamental dependence of humans on Earth and environmental systems and the resilience of these systems, students will learn to devise informed and meaningful responses to sustainability challenges based on the interpretation of appropriate evidence and explicit statements of values.

By the end of the course, students will have **developed a strong foundational, interdisciplinary understanding of food security and sustainability, equipped with the skills to create innovative solutions for real-world challenges in a variety of fields**.

Course Learning Goals and Outcomes

By the end of this course, students will:

- **Course Goal 1:** Understand the interdisciplinary nature of food security and urban sustainability challenges.
    - CLO 1.1 Explain the key concepts of food systems, sustainability, and community engagement. ABET 1.1; 2.1

  - CLO 1.2 Identify the roles of engineering in addressing food security and sustainability. ABET 2.2

- **Course Goal 2:** Apply engineering design principles to real-world problems in urban agriculture.
  - CLO 2.1 Develop design solutions for urban farming systems based on community needs. ABET 2.1, 4.1
  - CLO 2.2 Evaluate the feasibility and sustainability of proposed engineering solutions. ABET 2.2, 7.1
- **Course Goal 3:** Engage in collaborative, community-based learning experiences.
  - CLO 3.1 Demonstrate effective teamwork and communication in interdisciplinary settings. ABET 5.1, 3.1
  - CLO 3.2 Reflect on personal and group contributions to community-engaged projects.
- **Course Goal 4:** Develop critical thinking and problem-solving skills through experiential learning.
  - CLO 4.1 Analyze complex systems and propose evidence-based interventions.
  - CLO 4.2 Integrate knowledge from multiple disciplines to address sustainability challenges.
- **Course Goal 5:** Communicate technical and non-technical information effectively.
  - CLO 5.1 Prepare and deliver presentations tailored to diverse audiences.
  - CLO 5.2 Write clear, persuasive grant proposals and technical reports.

General Education Expected Learning Goals and Outcomes

As part of the Sustainability category of the General Education curriculum, this course is designed to prepare students to be able to do the following:

- **GE Goal 1:** Successful students will investigate sustainability at a more advanced and in-depth level than in the Foundations component.
  - ELO 1.1 Engage in critical and logical thinking about the topic or idea of sustainability. CLO 1.1, 1.2, 2.1, 2.2
  - ELO 1.2 Conduct in an advanced, in-depth, scholarly exploration of the topic or idea of sustainability. CLO 1.2, 2.2, 6.1, 6.2, 6.3

- **GE Goal 2:** Successful students will integrate approaches to sustainability by making connections to out-of- classroom experiences with academic knowledge or across disciplines and/or to work they have done in previous classes and that they anticipate doing in future.
    - ELO 2.1 Identify, describe and synthesize approaches or experiences as they apply to sustainability. CLO 2.1, 2.2
    - ELO 2.2 Demonstrate a developing sense of self as a learner through reflection, self-assessment and creative work, building on prior experiences to respond to new and challenging contexts. CLO 2.3
- **GE Goal 3:** Successful students will analyze and explain how social and natural systems function, interact, and evolve over time; how human well-being depends on these interactions; how actions have impacts on subsequent generations and societies globally; and how human values, behaviors and institutions impact multifaceted potential solutions across time.
    - ELO 3.1 Articulate elements of the fundamental dependence of humans on Earth and environmental systems, and on the resilience of these systems. CLO 3.1, 4.3
    - ELO 3.2 Describe, analyze, and critique the roles and impacts of human activity and technology on both human society and the natural world, in the past, present and future. CLO 3.2, 4.3
    - ELO 3.3 Devise informed and meaningful responses to problems and arguments in the area of sustainability based on the interpretation of appropriate evidence and an explicit statement of values. CLO 3.3, 4.2, 4.3

This course fulfills the Service-learning outcomes. Students will engage in analyzing service, community, and engineering within their projects at a more advanced and in-depth level. Students will use integrated approaches to study Service by making connections between their out-of-classroom experiences, academic knowledge across disciplines, and past/future work.

This course fulfills the General Education learning outcomes for the Sustainability Theme by:

- Engaging in critical and logical thinking about the topic of service through a series of lectures, discussions, and writing (Homeworks, Discussions, and projects) The course will expose students to different types of data sets that are generated on a farm and community level and how they could be used to implement the best practices that helps to reach goals.
- Engaging in a semester-long in-depth and advanced scholarly exploration of service and engineering projects and in the homework's.
- Analyzing, and providing visualization of the data sets that helps to communicate the results to public, stakeholder groups (local or global communities) that helps to make informed decisions towards a more sustainable future.
- Throughout the semester students will submit written reflections on the Guest Speakers, descriptions of their work, and their view of the impact of digital agriculture on sustainability for the next "ten years.". Additional writings about thought leaders, current

trends, sources of data generated on the farm, and the future of digital agriculture will help to develop the student's knowledge base in digital agriculture and sustainability. This will improve their ability to interact with other students from other disciplines and stakeholders who are interested in sustainability.

- The lecture topics provide descriptions of the interactions between human activity, technology, and societal norms in relation to the environment and impact of their interactions on sustainability based on the data generated from various sources on the farm. The delicate balance of meeting societal needs with the increasing population requires a new approach. Students will learn how data is gathered on the farm and analyzed to make informed decisions taking into consideration productivity and sustainability.
- Describing, analyzing, and critiquing the roles and impacts of human activity and technology on both the society and the environment will help students to understand there needs to be a delicate balance between the needs and desires of an increasing population considering the natural resources required to meet those demands in the future.
- Devising informed and meaningful responses to problems and issues related to sustainability based on the interpretation of appropriate evidence and an explicit statement of values. Knowledge gained in this course will help students to understand digital technologies and their application to evaluate the impact of different conventional and new food production systems on sustainability. The experiences from the course will allow the student to make informed decisions in real life about the impact of production practices on sustainability.

This course will fulfill the GE Integrative Practice: Service-Learning

How This Course Works

Mode of delivery:

This course is taught in person. Students are expected to attend class each week during the scheduled meeting sessions. Exams will be administered via Carmen during the scheduled class meetings as found on the course schedule.

Pace of online activities: This course is divided into **weekly modules** that are released one week ahead of time. Students are expected to keep pace with weekly deadlines but may schedule their efforts freely within that time frame.

Credit hours and work expectations: This is a 4 credit-hour course. According to Ohio State bylaws on instruction (go.osu.edu/credithours), students should expect around 3 hours lecture plus 2 hours for laboratory or field work per week of time spent on direct instruction (instructor content and Carmen activities, for example) in addition to 7 hours of homework (reading, lab and field work reports, assignment preparation) to receive a grade of [C] average.

Course Meetings, Participation and Attendance

Student participation requirements

Attendance and participation are critical for your success in this course. If you have a situation that might cause you to miss class, discuss it with me *as soon as possible*. The following is a summary of everyone's expected participation:

- **Class attendance: THREE (3) TIMES PER WEEK (2) Lectures and (1) Lab**

  Class attendance will be taken daily via TopHat in the first 5 minutes of both class and lab. Complete all required readings and assignments before coming to class.

- **Class participation**: **EVERY CLASS SESSION**

  Students are expected to engage fully during class. Full engagement also requires on-time arrival. Each unexcused arrival more than 5 minutes late (with one pass for each student) will result in losing 0.25% out of the 10% of your grade assigned to participation. The evaluation of your participation will be based on attendance, punctuality, and contribution to in-class discussions. To be excused, please notify me in advance or as soon as possible in the case of emergency or illness possible.

- **Attendance and Punctuality Policy**

  Each unexcused arrival more than 5 minutes late (after one free pass) will result in a deduction of 0.25% out of the 10% of your grade assigned to participation.

  Excused absences, including those due to illness, family matters, or other legitimate circumstances, will not result in deductions. To be excused, please notify me in advance or as soon as possible in the case of emergency or illness possible.

- **Class Environment**

  In class, we have frequent opportunities to discuss course topics. Students will be coming into the class with a wide range of experiences and thoughts about the course topics. **Let's maintain a supportive learning community where everyone feels safe and where people can disagree amicably.**

Course Materials, Fees and Technologies

Required Materials and/or Technologies

- Gottlieb, Robert, and Anupama Joshi. *Food justice*. MIT Press, 2010. (Available through OSU libraries as free eBook). Connect to resource MIT Press, Connect to resource (off-campus) MIT Press
- IDEO.org. *The Field Guide to Human-Centered Design*. 1st ed., IDEO.org, 2015. (Provided via course Carmen site).
- **Off-campus** access to most OSU Library resources may be obtained through these routes
- CATME: online teamwork software.
- TOPHAT: online attendance/learning tool.
- Additional required readings available free online:
    - Cruikshank, Jane. "The Outsider: An Uneasy Role in Community Development." Canadian Social Work Review / Revue canadienne de service social, vol. 7, no. 2, Summer 1990, pp. 245–259. Canadian Association for Social Work Education.
    - Leiderman, Sally, Andrew Furco, Jennifer Zapf, and Megan Goss. Building Partnerships with College Campuses: Community Perspectives. A Monograph. Consortium for the Advancement of Private Higher Education's Engaging Communities and Campuses Grant Program, 2002.
    - Miller, Peter M., Tanya Brown, and Rodney Hopson. "Centering love, hope, and trust in the community: Transformative urban leadership informed by Paulo Freire." Urban Education 46.5 (2011): 1078-1099.
    - The Tools of the Trade. YouTube, uploaded by No-Till Growers, 16 June 2024, https://youtu.be/m96Wi155Dw4?si=Yt1ic05ZLB8InViF
    - How to Fit Five Acres into One. YouTube, uploaded by No-Till Growers, 25 Feb 2024, https://youtu.be/zU_hP8x5D34?si=DbITPsZEAxy9Rvqj
    - What Market Gardening is Actually Like. YouTube, uploaded by No-Till Growers, Jun 23, 2024, https://youtu.be/2E---CDpnQ8?si=OwRfZHawiWhystQt
    - Bane, Peter. The permaculture handbook: garden farming for town and country. New Society Publishers, 2012.
        - OSU Library Access Link

Required Equipment

- **Computer:** current Mac (MacOS) or PC (Windows 10) with high-speed internet connection.
- **Webcam:** built-in or external webcam, fully installed and tested

- **Microphone:** built-in laptop or tablet mic or external microphone
- **Other:** a mobile device (smartphone or tablet) to use for BuckeyePass authentication

If you do not have access to the technology you need to succeed in this class, review options for technology and internet access (go.osu.edu/student-tech-access).

Required Software

Microsoft Office 365: All Ohio State students are now eligible for free Microsoft Office 365. Visit the installing Office 365 (go.osu.edu/office365help) help article for full instructions. TOPHAT and CATME are required software for this course. See Carmen course for more information.

CarmenCanvas Access

You will need to use BuckeyePass (buckeyepass.osu.edu) multi-factor authentication to access your courses in Carmen. To ensure that you are able to connect to Carmen at all times, it is recommended that you do each of the following:

- Register multiple devices in case something happens to your primary device. Information can be found at BuckeyePass (buckeyepass.osu.edu).
- Users will only receive one SMS passcode at a time. Using the "Trust Browser" feature on a user's first authentication log in of the day will allow the user to bypass the need for another passcode for 24 hours.
- Install the Duo Mobile application (https://it.osu.edu/learner-technology-handbook/ch3/duo) on all of your registered devices for the ability to generate one-time codes in the event that you lose cell, data, or Wi-Fi service.

If none of these options will meet the needs of your situation, you can contact the IT Service Desk at 614-688-4357 (HELP) and IT support staff will work out a solution with you.

Technology Skills Needed for This Course

- Basic computer and web-browsing skills
- Navigating CarmenCanvas (go.osu.edu/canvasstudent)
- CarmenZoom virtual meetings (go.osu.edu/zoom-meetings)

Technology Support

For help with your password, university email, CarmenCanvas, or any other technology issues, questions or requests, contact the OSU IT Service Desk. Standard support hours are available at https://ocio.osu.edu/help/hours, and support for urgent issues is available 24x7.

- **Self Service and Chat**: go.osu.edu/it
- **Phone:** 614-688-4357 (HELP)
- **Email:** servicedesk@osu.edu

Accessibility of Course Technology

This online course requires use of CarmenCanvas (Ohio State's learning management system) and other online communication and multimedia tools. If you need additional services to use these technologies, please request accommodations as early as possible.

- CarmenCanvas accessibility (go.osu.edu/canvas-accessibility)
- Streaming audio and video
- CarmenZoom accessibility (go.osu.edu/zoom-accessibility)
- CATME PDF Accessibility

The course content is structured into three phases:

1. **Background/Context Phase:** Students will read five chapters of *Food Justice* by Robert Gottlieb and Anupama Joshi, selected articles on community engagement, and selected sections of the "Field Guide to Human-Centered Design," to explore the history and current state of the food system, best practices in community engagement, and sustainable design strategies. Weekly reading reflections and discussions will encourage critical and logical thinking about food security and sustainability.

2. **Ideation Phase:** Students will be assigned by the instructor videos and readings on small-scale farm design, systems, and tools, including theories on sustainable, regenerative, and urban agriculture. Additionally, they will delve into the "Field Guide to Human-Centered Design" for ideation readings and engage in group work to identify topics for grant proposals. Groups will be formed, and each will be assigned specific videos on small farm technologies. These groups will then research the technologies presented in their assigned videos and deliver short, in-class presentations to describe and explain the technology to the rest of the class. This will not only enhance their understanding but also foster peer learning. Furthermore, students will perform in-depth research on farm systems and tools of interest and carry out a group assignment to design a small-scale farm.

3. **Synthesis Phase:** Additional readings and case studies will be presented to help synthesize the material presented thus far. Students will develop comprehensive grant proposals in response to fictional calls for designs to improve efficiencies and accessibility of fresh food in society. These proposals will be supported by evidence and articulate value-based perspectives on creating a just food system and will be presented to community partners. See page 16 for Safety and Transportation.

Throughout the course, students will **conduct field visits** to local community gardens and urban farms, observing and analyzing sustainable agricultural practices. They **will reflect on where**

their food comes from, their direct connections to environmental systems, and their family's history with food and farming. By understanding the fundamental dependence of humans on Earth and environmental systems and the resilience of these systems, students will learn to devise informed and meaningful responses to sustainability challenges based on the interpretation of appropriate evidence and explicit statements of values.

By the end of the course, students will have **developed a strong foundational, interdisciplinary understanding of food security and sustainability, equipped with the skills to create innovative solutions for real-world challenges in a variety of fields**.

How Your Grade is Calculated

Assignment Cateogry	Percentage
Attendance and Participation	10
In-Class Activities	5

Background/Context Phase 1 Homework
• Write-to-learn Assignments
  ○ Ch. 1-6 *Food Justice*
  ○ Selected articles from Field Guide to Human-Centered Design
• Individual Values Reflection
• Field Visit and Volunteer Session Reflection
	15

Phase 1 Synthesis Assignment Group Presentation	10

Ideation Phase 2 Homework
• Write-to-learn Assignments
  ○ Small farm tech videos and readings
  ○ Selected articles from Field Guide to Human-Centered Design
• Farm Systems Research Assignment
	15

Phase 2 Synthesis Assignment: Design Your Small Farm	10

Synthesis Phase 3 Homework
  ○ Concept Brainstorm Assignment
  ○ Research Assignment
  ○ Annotated Bibliography
	15

Phase 3 Synthesis Assignment Draft Proposal	10
Phase 3 Synthesis Assignment Final Proposal	10

See Course Schedule for due dates.

Descriptions of Major Course Assignments

Attendance and Participation

Attendance and Late Policy: See "Course Meetings, Attendance, and Participation" section above. Each unexcused arrival more than 5 minutes late (after one free pass) will result in a deduction of 0.25% out of the 10% of your grade assigned to participation. Excused absences, including those due to illness, family matters, or other legitimate circumstances, will not result in deductions. See the Attendance and Punctuality Policy' for more information and details.

Attendance will count for 5% of the attendance and participation grade of 10%.

In-Class Activities

Students will participate in activities based on assigned readings to explore course topics and to develop strategies and approaches for their research. These activities will require submission to Carmen by the end of class and will be graded for completion and good effort. Participation in these activities will be subject to the attendance policy. Points for these activities will be lost for unexcused. However, students with excused absences will not be penalized and can arrange to complete the activity asynchronously if necessary.

Background/Context Phase 1 Homework

- Write-to-learn Assignments**:** Students will be assigned readings, video clips, and interactive online activities throughout the semester. Each assigned reading will have an associated reading log or online Carmen discussion board which must be submitted to Carmen by the start of the class indicated in the course schedule. Generally, these assignments will prompt students to write about the readings to help reinforce the readings. These can take the form of written reflections, conducting further research on a topic introduced in the reading, or to contribute to an online discussion board. **CLO 1.2, CLO 1.3**
    - *Read Chap 1-3, and 5-6 Food Justice*
    - *Read Field Guide to Human-Centered Design selected articles*
    - *Read "Role of the Outsider"*
    - *Read "Connecting with College Campuses"*
- Individual Values Reflection: At the end of the first phase of the class, students will be asked to describe some of their most important takeaways from the readings to date. Students will also be asked to list and summarize personal values that relate to the

concepts covered to serve as a framework for the next phases of the class. **CLO 2.2, CLO 3.3, CLO 3.4**

- Field Visit and Volunteer Session: Students will be given several options for field visits to community gardens, and local small-scale and urban farms. The course instructor will facilitate these visits and provide exact dates and times on Carmen.

  Students will be asked to complete a reflection assignment with general impressions and a short analysis of one component or system observed. See page 16 for safety and transportation, **CLO 2.2, 3.2, 3.3, 4.1, 4.3**

Phase 1 Synthesis Assignment Group Presentation: Students will be placed into small groups by the instructor and asked to present a summary of an assigned chapter from *Food Justice*. In addition to the summary, student groups will also be asked to identify a specific issue presented in the chapter, to provide further detail, and to propose a strategy or policy that addresses it. This strategy or policy should be backed by additional research, should clearly frame two or more perspectives (from different individuals, communities, or other stakeholders), and should discuss possible implications.

Students will submit presentation slides to Carmen, and presentations will be graded as a group; however, individual grades will be adjusted based on peer evaluations of each member's contribution to ensure fair credit is given. The peer evaluations will be conducted through CATME. **CLO 1.1, 1.2, 2.1, 2.2, 3.2, 4.2**

Ideation Phase 2 Homework

- **Write-to-learn Assignments: See Background/Context Phase 1 Homework**
  - *Small farm tech videos and readings*
  - *Tools of the trade,*
  - *"Field Guide to Human-Centered Design" ideation readings*
- **Farm Systems Research Assignment:** Students will be asked to find and present on a video or article concerning a small farm system, tool, or technology of interest beyond what was covered in the videos provided. For this assignment, students will submit their presentations to Carmen, as well as a 1-2 page written summary of their chosen source. These presentations will be delivered in small groups and should include a basic analysis from economic and environmental perspectives. **CLO 1.1, 1.2, 2.1, 2.2, 3.1, 3.2, 4.3**

Phase 2 Synthesis Assignment: Design Your Small Farm: Students will be placed into small groups by the instructor and provided with a scenario (provided via Carmen) that includes a budget, crop and/or animal options, anticipated sales, and various farm management decisions. They will design a small-scale farm, making strategic choices about crops, resource allocation, and sustainable practices. The assignment includes creating a detailed farm plan, analyzing the environmental and economic sustainability of their decisions, and reflecting on the challenges and trade-offs involved. This assignment will include group PowerPoint presentations to the rest of the class. **CLO 1.1, 1.2, 2.1, 2.2, 3.1, 3.2, 3.3, 4.1, 4.3**

Synthesis Phase 3 Homework

- **Final Synthesis Assignment: CLO 1.1, 1.2, 2.1, 2.2, 3.1, 3.2, 3.3, 4.1, 4.2, 4.3**

  This scaffolded project includes the following components:

  - **Concept Brainstorm Assignment (Individual):** The instructor will provide fictional requests for proposals and students will be asked to develop and briefly summarize one concept for a grant proposal related to sustainable, just food systems. Students will submit a 1–2-page summary of their chosen concept. These individually developed concepts will help groups decide their final concept for the larger proposal. This assignment serves as one part of the scaffolded grant assignment described below.
  - **Research Assignment (Individual):** Students will be asked to find a published journal article related to one of the concepts from the concept brainstorm assignment and to analyze and evaluate the evidence provided and the implications of the proposed system, technology, or initiative. Students will submit a 1-2 page written evaluation of the source.
  - **Annotated Bibliography (Individual):** Students will create an annotated bibliography including at least five sources, each with a written summary and analysis of the relevance and credibility of the data, evidence, and conclusions presented. This will be based on the concept each student's group has chosen for the grant proposal.

Phase 3 Synthesis Assignment Draft Proposal (Group Assignment, one submission per group): In this project, students will be placed in new groups by the instructor to develop a grant proposal addressing a specific sustainability challenge related to food systems. They will brainstorm concepts, conduct extensive research, and compile an annotated bibliography. The proposal must present innovative, evidence-based solutions and include an explicit statement of values. This project involves drafting and refining the proposal, culminating in a final written submission that demonstrates the group's

ability to devise meaningful responses to complex sustainability issues. For format and length see Carmen. **CLO 1.1, 1.2, 2.1, 2.2, 3.1, 3.2, 3.3, 4.1, 4.2, 4.3**

Phase 3 Synthesis Assignment Final Proposal (Group Assignment, one submission per group):

- For the final proposal, students will incorporate instructor feedback from the draft submission and resubmit a revised grant proposal.
- See Phase 3 Synthesis Assignment Draft Proposal above for further description.

Assignment Grading

Rubrics for each assignment will be provided on Carmen. Below is a sample rubric for the "Context and Background Phase Synthesis Assignment Group Presentation":

Criteria	Excellent (4)	Good (3)	Satisfactory (2)	Needs Improvement (1)
Identifies and Explains Issues	Clearly identifies and summarizes main issues, thoroughly explaining their implications and why they are problematic.	Identifies main issues and provides a basic explanation of their implications.	Identifies some issues but explanations are superficial or partially incorrect.	Fails to identify key issues or explain their relevance or implications.
Perspectives	Takes time to explain the primary stakeholders impacted, and two or more perspectives on the issue.	Explanation of stakeholders lacking and perspectives lacking: OR only one perspective discussed.	Explanation of stakeholders and perspectives insufficient for audience to grasp the issues presented.	Mostly missing
Evaluates Implications	Identifies and thoroughly discusses implications, considering stakeholder perspectives, data, and evidence.	Identifies and briefly discusses implications, most but not all the relevant stakeholders, data, and evidence.	Suggests some implications, but without clear reference to stakeholders' data, and evidence.	Fails to clearly identify implications, implications only vaguely indicated.

Criteria	Excellent (4)	Good (3)	Satisfactory (2)	Needs Improvement (1)
Demonstrates and Evaluates Data from Research	Provides evidence of thorough additional research and identifies and evaluates evidence.	Provides evidence of some additional research and identifies and evaluates evidence.	Provides evidence of some additional research, but evaluation of evidence lacking.	Evidence of additional research lacking, identification and evaluation of evidence lacking.
Individual Preparation and Presentation Style	Each member presents in a compelling, engaging, and professional manner, clearly articulating their points, and shows excellent preparation.	Presentations are clear and professional with good preparation but may lack a bit in engagement or dynamism.	Presentations are adequately prepared; some members may be under-prepared or monotone.	Presentations are poorly delivered, lacking in professionalism, preparation, and fail to engage.
Use of Visuals and Media	Uses high-quality visuals that are directly related to the content and enhance presentation. Graphs and figures are clear and readable, and well-explained.	Visuals are used but are of average quality, difficult to read or provide limited value to presentation, or explanation is somewhat lacking.	Use of visuals is sparse, and figures and graphs are difficult to read or understand, or explanations are lacking.	Minimal or inappropriate use of visuals that do not enhance presentation.
Clarity and Organization	Presentation is exceptionally clear and well-organized; information is presented logically with clear transitions between topics.	Presentation is somewhat lacking in clarity or organization, logical flow, or clear transitions between topics.	Presentation is somewhat organized but audience understanding is impacted.	Presentation is unclear and poorly organized, making it hard to follow.

Academic integrity and collaboration: Your written assignments, including discussion posts, must be your own or groups own original work. In formal assignments, you should follow MLA style to cite the ideas and words of your research sources. You are encouraged to ask a trusted

person to proofread your assignments before you turn them in but no one else should revise or rewrite your work.

Community Visits: Transportation, and site visit expectations

Field Visit Expectations

As a service-learning course, volunteer service hours at partner sites are a critical part of the experience. Below is a general outline of site visits and community partner engagement. Please note that this does not represent a set schedule, but an outline that will change from semester to semester depending on partner availability. CLO 4.1

Week 2: Guest lecture either in class or at partner site, during class hours.

Week 4: Site visits with tours and volunteer work session.

Week 9: Mini STEM camp at Charles Madison Nabrit Memorial Garden for children from the community. Students to support as counselors/assistants under the supervision of organizational workers who have had background checks. Students may have a mini-training or code of conduct agreements or both.

Week 11: Volunteer session.

Week 13: Feedback on Grant proposal project (community partners visiting in class).

Week 15: Presentations at community sites and informal gathering (with food!).

The course expectation is that students will be able to attend at ***least two of the off-campus meetings***. Each engagement comes with an associated, graded reflection assignment that students are expected to complete whether or not they were able to attend. Recordings of the visits will be posted to Carmen for students who are unable to attend.

There are many reasons why a student may not be able to fit out-of-class field visits into their schedule: work hours, family commitments, health reasons, etc. If you expect that you will not be able to fulfill the two off-campus engagements during the semester, it is your responsibility to let me know as soon as possible that we can work out accommodations**. I want to make sure any student who wants to take this class can, so it is perfectly acceptable to have a conversation about alternative contributions and engagements.**

Preparation and safety for working on-site

Failure to follow these safety guidelines could result in sitting out the day's activities, a zero grade for associated assignments, or automatic removal from the class and receipt of an E grade depending on the severity of the incident.

Safety

In general, no activity should be carried out in the garden alone and no tools or equipment should be used without permission and supervision of instructor. Never use a tool that you are not familiar with, and never carry out an activity outside of your comfort zone. Please ask for help and assistance if you are ever in doubt. Students must always wear appropriate personal protective equipment (e.g. safety glasses and gloves) when working with tools.

Footwear

Students are required to wear close-toed shoes to every site visit. Failure to do so will result in sitting out the day's activities.

General

The gardens we partner with are special places to many, **please be respectful and listen to and follow any guidance or requests from our partners**.

Transportation Options

We will discuss transportation options during class to ensure everyone is able to attend on-site workdays.

Late Assignments

Please refer to Carmen for due dates. Due dates are set to help you stay on pace and to allow timely feedback that will help you complete subsequent assignments.

All assignments should be turned in before the beginning of class on the due dates specified on Carmen. Submission methods will be communicated by the instructor. Late assignments should be turned in by the next meeting time and will be graded with a 20% penalty and an additional 10% penalty for every day following. Valid excuses for late submissions will receive no penalty. Please check with me as soon as possible if you know that you will miss an assignment deadline.

Instructor Feedback and Response Time

I am providing the following list to give you an idea of my intended availability throughout the course. (Remember that you can call **614-688-HELP** at any time if you have a technical problem.)

- **Grading and feedback:** For large weekly assignments, you can generally expect feedback within **7 days**.
- **E-mail:** I will reply to e-mails within **48 hours on school days**.
- **Preferred contact method:** If you have a question, please contact me first through my Ohio State email address. I will reply to emails within **24 hours on days when class is in session at the university**.
- **Class announcements:** I will send all important class-wide messages through the Announcements tool in CarmenCanvas. Please check your notification preferences (go.osu.edu/canvas-notifications) to ensure you receive these messages.

- **Discussion board:** I will check and reply to messages in the discussion boards once mid-week and once at the end of the week.

Grading Scale

93–100: A
90–92.9: A-
87–89.9: B+
83–86.9: B
80–82.9: B-
77–79.9: C+
73–76.9: C
70–72.9: C-
67–69.9: D+
60–66.9: D
Below 60: E

Other Course Policies

Discussion and Communication Guidelines

The following are my expectations for how we should communicate as a class. Above all, please remember to be respectful and thoughtful.

- **Writing style**: While there is no need to participate in class discussions as if you were writing a research paper, you should remember to write using good grammar, spelling, and punctuation. A more conversational tone is fine for non-academic topics.
- **Tone and civility**: Let's maintain a supportive learning community where everyone feels safe and where people can disagree amicably. Remember that sarcasm doesn't always come across online. I will provide specific guidance for discussions on controversial or personal topics.
- **Citing your sources**: When we have academic discussions, please cite your sources to back up what you say. For the textbook or other course materials, list at least the title and page numbers. For online sources, include a link.
- **Backing up your work**: Consider composing your academic posts in a word processor, where you can save your work, and then copying into the Carmen discussion.
- **Synchronous sessions**: During our Zoom sessions I ask you to use your real name and a clear photo of your face in your Carmen profile. During our full-group lecture time, you may turn your camera off if you choose. When in breakout rooms or other small-group discussions, having cameras and mics on as often as possible will help you get the most out of activities. You are always welcome to use the free, Ohio State themed virtual

backgrounds (www.osu.edu/downloads/zoom-backgrounds.html). Remember that Zoom and Zoom chat are our classroom space where respectful interactions are expected.

Academic Integrity Policy

See Descriptions of Major Course Assignments for specific guidelines about collaboration and academic integrity in the context of this online class.

Policies for this course

- **Written assignments**: Your written assignments, including discussion posts, should be your own original work. In formal assignments, you should follow MLA style to cite the ideas and words of your research sources. You are encouraged to ask a trusted person to proofread your assignments before you turn them in--but no one else should revise or rewrite your work.

- **Reusing past work**: In general, you are prohibited in university courses from turning in work from a past class to your current class, even if you modify it. If you want to build on past research or revisit a topic you've explored in previous courses, please discuss the situation with me.

- **Falsifying research or results**: All research you will conduct in this course is intended to be a learning experience; you should never feel tempted to make your results or your library research look more successful than it was. If you are having trouble with an assignment, please come see me.

- **Collaboration and informal peer-review**: The course includes many opportunities for formal collaboration with your classmates. While study groups and peer-review of major written projects is encouraged, remember that comparing answers on a quiz or assignment is not permitted. If you're unsure about a particular situation, please feel free just to ask ahead of time.

Academic Misconduct

Academic integrity is essential to maintaining an environment that fosters excellence in teaching, research, and other educational and scholarly activities. Thus, The Ohio State University and the Committee on Academic Misconduct (COAM) expect that all students have read and understand the University's Code of Student Conduct, and that all students will complete all academic and scholarly assignments with fairness and honesty. Students must recognize that failure to follow the rules and guidelines established in the University's Code of Student Conduct and this syllabus may constitute Academic Misconduct.

The Ohio State University's Code of Student Conduct (Section 3335-23-04) defines academic misconduct as: Any activity that tends to compromise the academic integrity of the University or subvert the educational process. Examples of academic misconduct include (but are not limited to) plagiarism, collusion (unauthorized collaboration), copying the work of another student, and possession of unauthorized materials during an examination. Ignorance of the University's Code of Student Conduct is never considered an excuse for academic misconduct, so I recommend that you review the Code of Student Conduct and, specifically, the sections dealing with academic misconduct.

If I suspect that a student has committed academic misconduct in this course, I am obligated by University Rules to report my suspicions to the Committee on Academic Misconduct. If COAM determines that you have violated the University's Code of Student Conduct (i.e., committed academic misconduct), the sanctions for the misconduct could include a failing grade in this course and suspension or dismissal from the University.

If you have any questions about the above policy or what constitutes academic misconduct in this course, please contact the instructor for this course.

ACCESSIBILITY ACCOMMODATIONS FOR STUDENTS WITH DISABILITIES

The university strives to maintain a healthy and accessible environment to support student learning in and out of the classroom. If you anticipate or experience academic barriers based on your disability (including mental health, chronic, or temporary medical conditions), please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I may request that you register with Student Life Disability Services. After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion.

If you are ill and need to miss class, including if you are staying home and away from others while experiencing symptoms of a viral infection or fever, please let me know immediately. In cases where illness interacts with an underlying medical condition, please consult with Student Life Disability Services to request reasonable accommodations. You can connect with them at slds@osu.edu; 614-292-3307; or slds.osu.edu.

Your Mental Health

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. The Ohio State University offers services to assist you with addressing these and other concerns you may be experiencing.

If you or someone you know are suffering from any of the aforementioned conditions, you can learn more about the broad range of confidential mental health services available on campus via the Office of Student Life's Counseling and Consultation Service (CCS) by visiting ccs.osu.edu or calling 614-292-5766. CCS is located on the 4th floor of the Younkin Success Center and 10th floor of Lincoln Tower. You can reach an on-call counselor when CCS is closed at 614-292-5766 and 24-hour emergency help is also available through the 24/7 by dialing 988 to reach the Suicide and Crisis Lifeline.

For students in the College of Food, Agricultural, and Environmental Sciences, David Wirt, wirt.9@osu.edu, is the CFAES embedded mental health counselor on the Columbus campus. To contact David, please call 614-292-5766. Students should mention their affiliation with CFAES if interested in speaking directly with David.

Creating an Environment Free from Harassment, Discrimination, and Sexual Misconduct

The Ohio State University is committed to building and maintaining a community to reflect diversity and to improve opportunities for all. All Buckeyes have the right to be free from harassment, discrimination, and sexual misconduct. Ohio State does not discriminate on the basis of age, ancestry, color, disability, ethnicity, gender, gender identity or expression, genetic information, HIV/AIDS status, military status, national origin, pregnancy (childbirth, false pregnancy, termination of pregnancy, or recovery therefrom), race, religion, sex, sexual orientation, or protected veteran status, or any other bases under the law, in its activities, academic programs, admission, and employment. Members of the university community also have the right to be free from all forms of sexual misconduct: sexual harassment, sexual assault, relationship violence, stalking, and sexual exploitation.

To report harassment, discrimination, sexual misconduct, or retaliation and/or seek confidential and non-confidential resources and supportive measures, contact the Civil Rights Compliance Office:

Online reporting form at **civilrights.osu.edu**
Call 614-247-5838 or TTY 614-688-8605,
Or Email **civilrights@osu.edu**

The university is committed to stopping sexual misconduct, preventing its recurrence, eliminating any hostile environment, and remedying its discriminatory effects. All university employees have reporting responsibilities to the Civil Rights Compliance Office to ensure the university can take appropriate action:

- All university employees, except those exempted by legal privilege of confidentiality or expressly identified as a confidential reporter, have an obligation to report incidents of sexual assault immediately.
- The following employees have an obligation to report all other forms of sexual misconduct as soon as practicable but at most within five workdays of becoming aware of such information: 1. Any human resource professional (HRP); 2. Anyone who supervises faculty, staff, students, or volunteers; 3. Chair/director; and 4. Faculty member.

In addition, this course adheres to **The Principles of Community** adopted by the College of Food, Agricultural, and Environmental Sciences. These principles can be found at https://cfaes.osu.edu/about/cfaes-principles-community. If you have been a victim of or a witness to harassment or discrimination or a bias incident, you can report it online and anonymously (if you choose) at https://civilrights.osu.edu/.

Artificial Intelligence and Academic Integrity

There has been a significant increase in the popularity and availability of a variety of generative artificial intelligence (AI) tools, including ChatGPT, Sudowrite and others. These tools will help shape the future of work, research and technology but when used in the wrong way, they can stand in conflict with academic integrity at Ohio State.

All students have important obligations under the **Code of Student Conduct** to complete all academic and scholarly activities with fairness and honesty. Our professional students also have the responsibility to uphold the professional and ethical standards found in their respective academic honor codes. Specifically, students are not to use unauthorized assistance in the laboratory, on field work, in scholarship or on a course assignment unless such assistance has been authorized specifically by the course instructor. In addition, students are not to submit their work without acknowledging any word-for-word use and/or paraphrasing of writing, ideas or other work that is not your own. These requirements apply to all students undergraduate, graduate, and professional.

To maintain a culture of integrity and respect, these generative AI tools should not be used in the completion of course assignments unless an instructor for a given course specifically authorizes their use. Some instructors may approve of using generative AI tools in the academic setting for specific goals. However, these tools should be used only with the explicit and clear permission of each individual instructor, and then only in the ways allowed by the instructor.

Intellectual Diversity

Ohio State is committed to fostering a culture of open inquiry and intellectual diversity within the classroom. This course will cover a range of information and may include discussions or debates about controversial issues, beliefs, or policies. Any such discussions and debates are intended to support understanding of the approved curriculum and relevant course objectives rather than promote any specific point of view. Students will be assessed on principles applicable to the field of study and the content covered in the course. Preparing students for citizenship includes helping them develop critical thinking skills that will allow them to reach their own conclusions regarding complex or controversial matters.

Religious Accommodations

Ohio State has had a longstanding practice of making reasonable academic accommodations for students' religious beliefs and practices in accordance with applicable law. In 2023, Ohio State updated its practice to align with new state legislation. Under this new provision, students must be in early communication with their instructors regarding any known accommodation requests for religious beliefs and practices, providing notice of specific dates for which they request alternative accommodations within 14 days after the first instructional day of the course. Instructors in turn shall not question the sincerity of a student's religious or spiritual belief system in reviewing such requests and shall keep requests for accommodations confidential.

With sufficient notice, instructors will provide students with reasonable alternative accommodations with regard to examinations and other academic requirements with respect to students' sincerely held religious beliefs and practices by allowing up to three absences each semester for the student to attend or participate in religious activities. Examples of religious accommodations can include, but are not limited to, rescheduling an exam, altering the time of a student's presentation, allowing make-up assignments to substitute for missed class work, or flexibility in due dates or research responsibilities. If concerns arise about a requested accommodation, instructors are to consult their tenure initiating unit head for assistance.

A student's request for time off shall be provided if the student's sincerely held religious belief or practice severely affects the student's ability to take an exam or meet an academic requirement **and** the student has notified their instructor, in writing during the first 14 days after the course begins, of the date of each absence. Although students are required to provide notice within the first 14 days after a course begins, instructors are strongly encouraged to work with the student to provide a reasonable accommodation if a request is made outside the notice period. A student may not be penalized for an absence approved under this policy.

If students have questions or disputes related to academic accommodations, they should contact their course instructor, and then their department or college office. For questions or to report discrimination or harassment based on religion, individuals should contact the Civil Rights Compliance Office.

Policy: Religious Holidays, Holy Days and Observances

Weather / Short-Term Closing

Although Ohio State strives to remain open to ensure continuity of services to students and the public, extreme conditions can warrant the usage of the university's **Weather or Other Short-Term Closing Policy**. Please **visit this webpage** to learn more about preparing for potential closings and planning ahead for winter weather.

COURSE SPECIFIC STATEMENTS

Zoom video/audio recording

This course uses video and audio recordings of class lectures, student presentations, and related materials. These recordings are available to all students presently enrolled in the course. Please note that you are not allowed to share these recordings. This is to protect your FERPA rights and those of your fellow students.

Copyright

The materials used in connection with this course may be subject to copyright protection and are only for the use of students officially enrolled in the course for the educational purposes associated with the course. Copyright law must be considered before copying, retaining, or disseminating materials outside of the course.

Safe and Healthy Buckeyes

All students, faculty and staff are required to comply with and stay up to date on all university safety and health guidance. Non-compliance will result in a warning first, and disciplinary actions will be taken for repeated offenses.

Grievances and Solving Problems

According to University Policies, if you have a problem with this class, you should seek to resolve the grievance concerning a grade or academic practice by speaking first with the instructor or professor. Then, if necessary, take your case to the department chairperson, college dean or associate dean, and to the provost, in that order. Specific procedures are outlined in Faculty Rule 3335-8-23. Grievances against graduate, research, and teaching assistants should be submitted first to the supervising instructor, then to the chairperson of the assistant's department.

Content Warning Language

Some content in this course may involve media that may elicit a traumatic response in some students due to descriptions of and/or scenes depicting acts of violence, acts of war, or sexual violence and its aftermath. If needed, please take care of yourself while watching/reading this material (leaving classroom to take a water/bathroom break, debriefing with a friend, contacting a confidential Sexual Violence Advocate 614-267-7020, or Counseling and Consultation Services at

614-292-5766 and contacting the instructor if needed). Expectations are that we all will be respectful of our classmates while consuming this media and that we will create a safe space for each other. Failure to show respect to each other may result in dismissal from the class.

Lyft Ride Smart

Lyft Ride at Ohio State offers eligible students discounted rides, inside the university-designated service area, and has expanded service to the Short North area along High Street. Service runs from 7 p.m. to 7 a.m. Prices may be impacted by distance, traffic, time of day, special events and prime time surcharges. More information about the service and the Lyft App, and a link to get started using the Lyft Ride Smart services can be found at: **https://ttm.osu.edu/ride-smart**.

Course Schedule

Specific deadlines and due dates will be posted on the course Carmen page.

Background/Context Phase

Week 1
Topic 1: Intros & course logistics
Topic 2: Human-centered design: mindsets
Topic 3: Growing and producing food
Write-to-learn Assignments
Individual Values Reflection
Lab work

Week 2
Topic 1: Food system and food security
Topic 2: Community partners
Topic 3: Food as medicine
Write-to-learn Assignments
Individual Values Reflection
Lab work

Week 3
Topic 1: Food system and food security
Topic 2: Human-centered design: inspiration
Topic 3: Partnering with college campuses: community perspectives
Write-to-learn Assignments
Individual Values Reflection
Lab work

Week 4
Topic 1: Food politics
Topic 2: Growing justice
Field visit #1
Write-to-learn Assignments
Individual Values Reflection

Week 5
Topic 1: Food justice approaches
Topic 2: Role of the outsider
Write-to-learn Assignments
Individual Values Reflection
Lab work

Week 6
Topic 1: Food justice: approaches
Topic 2: Phase 1 synthesis assignment presentations
Write-to-learn Assignments
Individual Values Reflection
Lab work

Ideation Phase

Week 7
Topic 1: Project ideation
Topic 2: Teamwork, organization, goal setting
Write-to-learn Assignments
Individual Values Reflection
Lab work

Week 8
Topic 1: Secondary research
Topic 2: Small-scale farm design
Write-to-learn Assignments
Individual Values Reflection
Lab work

Week 9 **Topic 1:** Small-scale farm systems and tech #1
Field Visits #2: STEM education
Write-to-learn Assignments
Individual Values Reflection

Week 10 **Topic 1:** Progress reports
Topic 2: Small-scale farm systems and tech #2
Write-to-learn Assignments
Individual Values Reflection
Lab work

Synthesis Phase

Week 11 **Topic 1:** Grant writing
Field visit: Volunteer session
Write-to-learn Assignments
Individual Values Reflection

Week 12 **Topic 1:** Grant proposal development
Group work – Proposal
Write-to-learn Assignments
Individual Values Reflection
Lab work

Week 13 **Topic 1:** Research strategies and feedback
Partner visit
Write-to-learn Assignments
Individual Values Reflection

Week 14 *Group work – Proposal*
Group work – Proposal
Write-to-learn Assignments
Individual Values Reflection
Lab work

Week 15 *Field visit and phase 3 synthesis assignment presentations*
Debrief
Write-to-learn Assignments
Individual Values Reflection

GE Theme course submission worksheet: Sustainability

Overview

Courses in the GE Themes aim to provide students with opportunities to explore big picture ideas and problems within the specific practice and expertise of a discipline or department. Although many Theme courses serve within disciplinary majors or minors, by requesting inclusion in the General Education, programs are committing to the incorporation of the goals of the focal theme and the success and participation of students from outside of their program.

Each category of the GE has specific learning goals and Expected Learning Outcomes (ELOs) that connect to the big picture goals of the program. ELOs describe the knowledge or skills students should have by the end of the course. Courses in the GE Themes must meet the ELOs common for **all** GE Themes and those specific to the Theme, in addition to any ELOs the instructor has developed specific to that course. All courses in the GE must indicate that they are part of the GE and include the Goals and ELOs of their GE category on their syllabus.

The prompts in this form elicit information about how this course meets the expectations of the GE Themes. The form will be reviewed by a group of content experts (the Theme Advisory) and by a group of curriculum experts (the Theme Panel), with the latter having responsibility for the ELOs and Goals common to all themes (those things that make a course appropriate for the GE Themes) and the former having responsibility for the ELOs and Goals specific to the topic of **this** Theme.

Briefly describe how this course connects to or exemplifies the concept of this Theme (Sustainability)

In a sentence or two, explain how this class "fits' within the focal Theme. This will help reviewers understand the intended frame of reference for the course-specific activities described below.

(enter text here)

This class focuses on food security, urban farming, and community-based solutions to food security issues. As such, students study core issues relating to sustainability: food production and distribution, food production strategies and related trade-offs, and appropriate cultural/civic responses to problems within the food system.

This course fits within the Sustainability Theme by integrating engineering design principles with sustainable agricultural practices to address food security challenges. It explores the interdependence of human and environmental systems, promotes the development of sustainable technologies, and encourages critical thinking and problem-solving through a community-based lens.

Connect this course to the Goals and ELOs shared by *all* Themes

Below are the Goals and ELOs common to all Themes. In the accompanying table, for each ELO, describe the activities (discussions, readings, lectures, assignments) that provide opportunities for students to achieve those outcomes. The answer should be concise and use language accessible to colleagues outside of the submitting department or discipline. The specifics of the activities matter—listing "readings" without a reference to the topic of those readings will not allow the reviewers to understand how the ELO will be met. However, the panel evaluating the fit of the course to the Theme will review this form in conjunction with the syllabus, so if readings, lecture/discussion topics, or other specifics are provided on the syllabus, it is not necessary to reiterate them within this form. The ELOs are expected to vary in their "coverage" in terms of number of activities or emphasis within the course. Examples from successful courses are shared on the next page.

Goal 1: Successful students will analyze an important topic or idea at a more advanced and in-depth level than the foundations. In this context, "advanced" refers to courses that are e.g., synthetic, rely on research or cutting-edge findings, or deeply engage with the subject matter, among other possibilities.

Goal 2: Successful students will integrate approaches to the theme by making connections to out-of-classroom experiences with academic knowledge or across disciplines and/or to work they have done in previous classes and that they anticipate doing in future.

	Course activities and assignments to meet these ELOs
ELO 1.1 Engage in critical and logical thinking.	This course will build skills needed to engage in critical and logical thinking about food security and sustainability through: Readings: Course readings cover a background on food security, agricultural sustainability, and how they relate to U.S. culture. Course materials will also cover systems and strategies for small-scale agriculture, and Assignments: Each reading assignment will have an associated write-to-learn reflection assignment, and each of the three phases of the class (Context, Ideation, synthesis) will include a synthesis assignment: a group presentation and individual reflection (Context Phase), a group small-farm design project (Ideation), and a group grant proposal
ELO 1.2 Engage in an advanced, in-depth, scholarly exploration of the topic or ideas within this theme.	Students engage in an advanced, in-depth, scholarly exploration of sustainability through a combination of lectures, readings, discussions, and comprehensive projects. Lecture and Reading: The primary course reading for setting the context of sustainability from a food and farming perspective is "Food Justice" by Robert Gottlieb and Anupama Joshi, written by authors active in the fields of urban policy and food justice. These readings, and associated lecture activities, helps students learn about varied experiences related to the food system, including those of food producers, food-insecure citizens, health outcomes, and community impacts. Assignments: • Weekly Write-to-Learn Reflections: Based on the readings, these assignments encourage students to critically engage with the material, deepening their understanding and prompting advanced scholarly exploration. • Group Presentation (Context Synthesis Assignment): Each group is assigned a chapter from "Food Justice" to present, involving a detailed overview, elaboration on a specific topic, and proposing a strategy or policy supported by additional scholarly research. • Group Grant Proposal (Final Synthesis Assignment): This assignment involves developing a grant proposal that requires extensive research and application of advanced
ELO 2.1 Identify, describe, and synthesize approaches or experiences.	Students will identify, describe, and synthesize approaches to sustainability through a combination of lectures, readings, and practical assignments. Lecture and Discussions: Lectures and in-class discussions incorporate information from peer-reviewed journals, practical case studies, and current research to explore approaches to sustainability. Reading: Readings from the primary course text, Food Justice, include Ch.1 "Growing and Producing Food", Ch. 4 Food Politics, Ch. 5 Growing Justice, and Ch. 6 Forging New Food Routes directly speak to experiences and approaches to sustainability vis-a-vis food and agriculture. In addition, students will watch videos of on-farm walk-throughs and tours covering the common systems, tools, and techniques of small-scale and urban farming. Field visit volunteer days: As a service-learning course, students are required to attend at least one field visit to a local community garden or urban farms, where they will
ELO 2.2 Demonstrate a developing sense of self as a learner through reflection, self-assessment, and creative work, building on prior experiences to respond to new and challenging contexts.	Lecture, Discussions and Readings: The course integrates readings and discussions that prompt students to reflect on their personal connections to food systems and sustainability. Lectures also incorporate small group discussions where students share their reflections and learning experiences. These discussions promote self-awareness and peer learning, helping students recognize their growth as learners. Assignments: • Weekly Write-to-Learn Reflections: These reflections help students process and articulate their understanding of the readings. Students will reflect on their evolving perspectives and how their prior experiences influence their learning. • Field Visit Reflection: After visiting local community gardens and urban farms, students will write a reflection on their observations and experiences. They will consider how these visits connect to course readings and their personal views on sustainability and food systems. • SPENT Assignment: This interactive assignment simulates the experience of living on a limited budget, helping students understand the challenges of food insecurity. • Design Your Own Farm Project (Ideation Synthesis Assignment): This creative project allows students to apply their knowledge and reflect on their learning journey. They will design a sustainable farm, incorporating lessons learned from previous assignments and personal experiences. • Group Grant Proposal (Final Synthesis Assignment): Students will collaboratively develop a grant proposal addressing a sustainability challenge. This will require students to think creatively and build on their prior learning in the class.

Example responses for proposals within "Citizenship" (from Sociology 3200, Comm 2850, French 2803):

***ELO 1.1** Engage in critical and logical thinking.*	*This course will build skills needed to engage in critical and logical thinking about immigration and immigration related policy through:* *Weekly reading response papers which require the students to synthesize and critically evaluate cutting-edge scholarship on immigration;* *Engagement in class-based discussion and debates on immigration-related topics using evidence-based logical reasoning to evaluate policy positions;* *Completion of an assignment which build skills in analyzing empirical data on immigration (Assignment #1)*

	Completion 3 assignments which build skills in connecting individual experiences with broader population-based patterns (Assignments #1, #2, #3) *Completion of 3 quizzes in which students demonstrate comprehension of the course readings and materials.*
***ELO 2.1** Identify, describe, and synthesize approaches or experiences.*	*Students engage in advanced exploration of each module topic through a combination of lectures, readings, and discussions.* *<u>Lecture</u>* *Course materials come from a variety of sources to help students engage in the relationship between media and citizenship at an advanced level. Each of the 12 modules has 3-4 lectures that contain information from both peer-reviewed and popular sources. Additionally, each module has at least one guest lecture from an expert in that topic to increase students' access to people with expertise in a variety of areas.* *<u>Reading</u>* *The textbook for this course provides background information on each topic and corresponds to the lectures. Students also take some control over their own learning by choosing at least one peer-reviewed article and at least one newspaper article from outside the class materials to read and include in their weekly discussion posts.* *<u>Discussions</u>* *Students do weekly discussions and are given flexibility in their topic choices in order to allow them to take some control over their education. They are also asked to provide* *information from sources they've found outside the lecture materials. In this way, they are able to* *explore areas of particular interest to them and practice the skills they will need to gather information* *about current events, analyze this information, and communicate it with others.* *Activity Example: Civility impacts citizenship behaviors in many ways. Students are asked to choose a TED talk from a provided list (or choose another speech of their interest) and summarize and evaluate what it says about the relationship between civility and citizenship. Examples of Ted Talks on the list include Steven Petrow on the difference between being polite and being civil, Chimamanda Ngozi Adichie's talk on how a single story can perpetuate stereotypes, and Claire Wardle's talk on how diversity can enhance citizenship.*
***ELO 2.2** Demonstrate a developing sense of self as a learner through reflection, self-assessment, and creative work, building on prior experiences to respond to new and challenging contexts.*	*Students will conduct research on a specific event or site in Paris not already discussed in depth in class. Students will submit a 300-word abstract of their topic and a bibliography of at least five reputable academic and mainstream sources. At the end of the semester they will submit a 5-page research paper and present their findings in a 10-minute oral and visual presentation in a small-group setting in Zoom.* *Some examples of events and sites:* *The Paris Commune, an 1871 socialist uprising violently squelched by conservative forces*

	Jazz-Age Montmartre, where a small community of African-Americans–including actress and singer Josephine Baker, who was just inducted into the French Pantheon–settled and worked after World War I. *The Vélodrome d'hiver Roundup, 16-17 July 1942, when 13,000 Jews were rounded up by Paris police before being sent to concentration camps* *The Marais, a vibrant Paris neighborhood inhabited over the centuries by aristocrats, then Jews, then the LGBTQ+ community, among other groups.*

Goals and ELOs unique to Sustainability

Below are the Goals and ELOs specific to this Theme. As above, in the accompanying Table, for each ELO, describe the activities (discussions, readings, lectures, assignments) that provide opportunities for students to achieve those outcomes. The answer should be concise and use language accessible to colleagues outside of the submitting department or discipline. The ELOs are expected to vary in their "coverage" in terms of number of activities or emphasis within the course. Examples from successful courses are shared on the next page.

GOAL 3: Students analyze and explain how social and natural systems function, interact, and evolve over time; how human wellbeing depends on these interactions; how actions have impacts on subsequent generations and societies globally; and how human values, behaviors, and institutions impact multi-faceted, potential solutions across time.

	Course activities and assignments to meet these ELOs
ELO 3.1 Describe elements of the fundamental dependence of humans on Earth and environmental systems and on the resilience of these systems.	Students will explore and describe the fundamental dependence of humans on Earth and environmental systems and the resilience of these systems through lectures, readings, discussions, and practical assignments. Lecture, Discussions, Readings: The course lectures and in-class small group discussions will cover the interconnectedness of human and environmental systems. Chapter 1 from Food Justice, "Growing and Producing Food" and the farm tour videos in the Ideation phase of the course will explore the interactions between humans and environmental systems, focusing on topics such as soil health, water management, and sustainable agricultural practices. Students will learn about the critical role that healthy ecosystems play in supporting human life and how sustainable practices can enhance the resilience of these systems. Assignments: ● Field Visit Reflection: After visiting local community gardens and urban farms, students will write a reflection on their observations and experiences. They will analyze how sustainable agricultural practices support soil health, water conservation, and biodiversity, contributing
ELO 3.2 Describe, analyze and critique the roles and impacts of human activity and technology on both human society and the natural world, in the past, currently, and in the future.	Students will describe, analyze, and critique the roles and impacts of human activity and technology on human society and the natural world through lectures, readings, discussions, and practical assignments. Lecture, Reading, and Write-to-Learn Assignments: Course lectures and write-to-learn assignments associated with Food Justice chapters 1 ("Growing and Producing Food"), 2 ("Accessing Food"), 3 ("Consuming Food), and 4 ("Food Politics) all serve to explore the roles and impacts of human activity on human society and the natural world. Through the associated lectures, in-class small-group discussions, and write-to-learn assignments, students will be asked to describe, analyze, and critique the food and agricultural systems and technologies and their impacts over time. Assignments: ● SPENT Assignment: Students will play the online simulation SPENT, which simulates living on a limited budget to understand the personal and systemic impacts of economic constraints, reflecting on broader societal and environmental implications. ● Group Presentation (Context Phase Synthesis Assignment): Students will present an overview of an assigned chapter from Food
ELO 3.3 Devise informed and meaningful responses to problems and arguments in the area of sustainability based on the interpretation of appropriate evidence and an explicit statement of values.	Lecture and Reading: Course lectures will provide foundational knowledge on sustainability issues, including food security, environmental impacts, and sustainable agricultural practices. Lectures will emphasize critical thinking and evidence-based decision-making, guiding students to formulate responses grounded in sound evidence and clear values. Primary readings from Food Justice by Robert Gottlieb and Anupama Joshi will set the context. Assignments: ● Weekly Write-to-Learn Reflections: These assignments encourage students to engage critically with the readings and lectures, reflecting on the evidence presented and formulating their own responses to sustainability issues. One of these reflection assignments will ask students to state their own values regarding the food system. ● Group Presentation (Context Phase Synthesis Assignment): Each group will present an overview of an assigned chapter from Food Justice, elaborate on a specific topic, and propose a strategy or policy to address the issues discussed. The presentation will require background research and analysis, culminating in a strategy or policy proposal supported by evidence and aligned with explicit values. ● Design Your Own Farm Project (Ideation Phase Synthesis Assignment): Students will design a sustainable farm, integrating practices that address identified sustainability challenges. They will critically evaluate their design choices, discussing how their proposed solutions

Service-Learning Course Inventory

Overview

The GE allows students to take a single, 4+ credit course to satisfy a particular GE Theme requirement if that course includes key practices that are recognized as integrative and high impact. Courses seeking one of these designations need to provide a completed Integrative Practices Inventory at the time of course submission. This will be evaluated with the rest of the course materials (syllabus, Theme Course submission document, etc). Approved Integrative Practices courses will need to participate in assessment both for their Theme category and for their integrative practice.

Please enter text in the boxes below to describe how your class will meet the expectations of Service-Learning Courses. It may be helpful to consult the Description & Expectations document for this pedagogical practice or to consult the OSU Office of Service Learning as you develop your course and complete this inventory. You may also want to consult the Director of Undergraduate Studies or appropriate support staff person as you complete this Inventory and submit your course.

Please use language that is clear and concise and that colleagues outside of your discipline will be able to follow. You are encouraged to refer specifically to the syllabus submitted for the course, since the reviewers will also have that document Because this document will be used in the course review and approval process, you should be *as specific as possible*, listing concrete activities, specific theories, names of scholars, titles of textbooks etc.

Accessibility

If you have a disability and have trouble accessing this document or need to receive it in another format, please reach out to Meg Daly at daly.66@osu.edu or call 614-247-8412.

Pedagogical Practices for Service-Learning

Course subject & number FABE 3200S

Performance expectations set at appropriately high levels (e.g. Students engage in appropriately linked academic and experiential exploration of the community setting in which they study). Please link this expectation to the course goals, topics and activities and indicate *specific* activities/assignments through which it will be met. *(50-500 words)*

Students will analyze sustainability and natural systems (GOAL 1 and GOAL 3) vis-a-vis food security and agriculture from multiple stakeholder perspectives through course readings, guest lectures from community partners, associated write-to-learn reflection activities, and synthesis assignments. This theoretical context is paired with the study of the engineering design process in the practical context of academic-community partnerships.

With these contextual frameworks, students will enhance their learning through working field visits in which students experience the labor associated with urban farming and are asked to analyze the sustainability and efficiency of a component of the partner farming system.

Therefore, throughout the semester, students are asked to digest content (readings and videos), to reflect and write about them, and to discuss them in class. Then, in three synthesis assignments capping each of the three phases of the course, they are asked to draw from their learning to create their own concepts (Synthesis Assignment #1 - a policy or community strategy addressing food security issues, Synthesis Assignment #2 - small farm design for community food security, Synthesis Assignment #3 - grant proposal for partner gardens). These synthesis assignments contain both individual and group components and are scaffolded to allow for meaningful feedback. The rubrics for these assignments will assess students on their ability to identify and describe the context, various perspectives, evaluate scholarly evidence, and describe possible implications pertaining to the issues they are analyzing.

Significant investment of time and effort by students over an extended period of time (e.g. develop an increasing appreciation of the issues, resources, assets, and cultures of the community in which they are working). Please link this expectation to the course goals, topics and activities and indicate *specific* activities/assignments through which it will be met. *(50-500 words)*

The course is divided into three phases. During the first phase, the course focuses on establishing a foundational knowledge of major issues related to food, agriculture, policy, and community-based strategies toward food justice (GOALs 1 and 3). This context is presented from the beginning with community partners in mind with an early assignment asking students to watch videos and/or read articles about the partner organizations and their leaders. The first phase also touches on concepts related to community engagement. This phase includes write-to-learn assignments associated with each reading, and a scaffolded synthesis assignment #1 in which students choose an issue from the phase 1 content to explore more deeply, carrying out additional research and presenting findings to the class.

The second phase transitions into the engineering/design theme of the course. Students, equipped with the foundational contextual understandings developed in phase 1, are now tasked with learning about the hands-on, day-to-day realization of sustainability and community-based food justice organizations. Students will watch videos on small-farm design and operation and read articles on different agricultural technologies, both of which include various write-to-learn assignments, and they will also carry out a farm-design assignment (synthesis assignment #2).

The third phase of the course asks students to focus on design through readings from the Field Guide to Human-Centered Design concerning ideation and co-design with community partners. They are asked to synthesize the first two phases, carry out additional research, and create a grant proposal (synthesis assignment #3) concerning an idea they have for a system, tool, or technology that would help their partner organization's productivity, efficiency, or profitability.

Interaction with and understanding of the partner communities is built over the course of several engagements described in the next question below. These engagements directly target course GOAL 2.

Interactions with faculty, peers, and community partners about substantive matters including regular, meaningful faculty mentoring, peer support, and community partner interaction. Please link this expectation to the course goals, topics and activities and indicate *specific* activities/assignments through which it will be met. *(50-500 words)*

Students will interact with faculty, community partners, and peers throughout the entire course, all within the context of sustainability-focused ommunity-based organizations (GOALS 1 and 2), and understanding from a design perspective how human outcomes are supported and dependent on natural system functions (GOAL 3).

Interactions with Peers: The three synthesis assignments all contain group components to facilitate peer support and learning. Every class day of the semester will include in-class small group discussions to provide students the opportunity to support one another's learning.

Interactions with Faculty: Throughout the semester, the instructor will use small-group discussion and report-outs to attempt to guide classroom discussions and content along student interests to the greatest extent possible. Feedback will be provided for each and every write-to-learn assignment, to help students feel heard, and to encourage students to think deeply about the course topics. Finally, the three synthesis assignments are scaffolded so as to allow more opportunities for instructor feedback on the most involved assignments of the course.

Interactions with Community: Students begin their contact with the course partners, the Charles Madison Nabrit Memorial Garden and South Side Family Farms, by reading about and watching video interviews with the partner leaders and completing an associated write-to-learn assignment.

Next, the community partners are invited for guest lectures, preferably at community sites if scheduling and weather allow. Students are assigned an associated reflection assignment which asks them to relate information that stood out to them and to try to identify questions and areas of study they need to address through the course content.

Next, field-visits are coordinated in which students provide volunteer labor and are asked to analyze a component of the partner food production systems. The labor could include weeding, simple construction, garden clean up, harvesting, planting - whatever the gardens need on the given day. During this visit students will also tour the garden and choose a system, piece of infrastructure, or tool that they will be asked to analyze from the perspective of engineering design. This experience is aimed to help them develop a stronger empathetic connection with the hands-on work of the partner as they seek to help the partners devise improvements to their farm efficiency and sustainability.

Next, students are asked to participate in a mini-camp at the Charles Madison Nabrit Memorial Garden. One of the pillars of this organization's mission is provision of free STEM/STEAM education to their community. Students in FABE 3200S are asked to participate in a one-day mini-camp hosted and led by the garden for community children in which educational activities take place in the garden. This activity and an associated reflection help students feel gain a deeper understanding and appreciation of the community.

The final synthesis assignment of the semester is to write a grant proposal for the garden. In this scaffolded effort with both individual and group components, students will have the chance to present their idea to the community partners for feedback.

The last interaction of the semester between students and the community partners is an on-site get-together at one of the community partner sites to share food, to have some time for informal interaction, and to have some group reflections.

Students will get frequent, timely, and constructive feedback on their work from all appropriate sources, especially on their community awareness and engagement, and their experience with difficult differences. Please link this expectation to the course goals, topics and activities and indicate *specific* activities/assignments through which it will be met. *(50-500 words)*

Students will be challenged to contrast the theoretical understanding and beliefs around sustainability they bring into the course and that they gain from the course (GOALs 1 and 3) with the reality of implementing community-based strategies (GOAL 2). As such, they will asked to complete assignments in which they create strategy (synthesis assignment #1), farm design (synthesis assignment #2), and technical proposals (synthesis assignment #3). For each of these larger assignments, students will receive feedback from peers (synthesis assignments 1,2, and 3), faculty (synthesis assignments 1,2, and 3), and community partners (synthesis assignment 3). Each synthesis assignments is scaffolded to enable meaningful faculty feedback on drafts before final submission.

Smaller weekly assignments throughout the semester include readings from "Field Guide to Human Centered Design", which stresses the importance of community awareness and ability to navigate differences. The readings challenge students to immerse themselves in the viewpoints of their counterparts in order to create effective solutions. These readings will have regular reflection, write-to-learn activities with associated assessments and faculty feedback and in-class peer feedback through discussions.

Additional weekly assignments include reading two articles on community engagement, "The Outsider: An Uneasy Role in Community Development" and "Building partnerships with college campuses: Community perspectives", which detail mindsets, perspectives, and strategies of both practitioners entering communities as outsiders as well as community members. These readings and associated assignments will be used to feed discussion and instruction around community engagement. These readings will also set up open and frank conversations with community members about their experiences partnering with large institutions, and their perceptions of outsiders engagement and experiences of difficult differences.

Several of the community engagement activities listed in a previous question will include a write-to-learn reflection assignment to help students examine their interactions with community and their experiences with difference. The instructor will use these assignments to guide subsequent classroom discussions around community engagement and to provide feedback and discussion on topics directly related to student experiences.

Periodic, structured opportunities to reflect and integrate learning (e. g. reflect on the service activity in such a way as to gain further understanding of course content, a broader appreciation of the discipline, and an enhanced sense of personal values and civic responsibility). Please link this expectation to the course goals, topics and activities and indicate *specific* activities/assignments through which it will be met. *(50-500 words)*

Throughout the semester, students will be asked to reflect on their community-based experiences. Early in the semester, students are introduced to Freire's concept of Praxis, that effective education means that one must both reflect and act on the world. Therefore the heart of the class is to develop theoretical frameworks about food security and food systems, and then to test those frameworks through the lens of participatory engineering design and hands-on work in community-based food security organizations (GOAL 2).

Weekly write-to-learn assignments based on course readings and videos (Food Justice book by Gottlieb and Joshi, Field Guide to Human Centered Design, small-scale farm systems videos, and selected journal publications on community engagement and food security), along with associated write-to-learn assignments will provide regular structured opportunities to reflect on learning (GOALs 1,2 and 3). These assignments vary in form, but include reflecting on personal links to the readings, summarizing important themes, creating concept maps, comparing and contrasting different strategies and approaches, and preparing mini-lessons for fellow students.

The three course synthesis assignments are designed to help students integrate their learning. The first synthesis assignment which follows the context and background phase of the course asks students to summarize a particular chapter of the Food Justice readings, and to propose or dive deeper into a policy proposal, community-based approach, or other strategy for addressing issues with the food system.

The second synthesis assignment asks students to design a small-scale farm. This helps them to reflect on start-up costs of various elements, profit margins in farming, and sustainability metrics. The goal here is to help students reflect empathetically on the challenges and opportunities of the community-based farming approach to food security and sustainability.

The third synthesis assignment asks students to develop a grant proposal based on a fictional call for proposals which seeks development of systems, tools, or other engineering-related designs to enhance the productivity and profitability of small scale community-based farms and gardens.

Opportunities to discover relevance of learning through real-world applications (e.g., intentional connection between academic content and the community work in which they engage). Please link this expectation to the course goals, topics and activities and indicate *specific* activities/assignments through which it will be met. *(50-500 words)*

Throughout the semester, theoretical learning about subjects such as human health, farming practices, and sustainability (GOALs 1 and 3) are directly connected to out-of-classroom experiences with community partners (GOAL 2).

The primary readings of the first phase of the semester come from the book Food Justice, written by two scholars in the food security field. Readings include Chapter 2 "Accessing Food", Chapter 3 "Consuming Food", Chapter 6 "Growing Justice", and Chapter 7 "New Food Routes", all of which include topics closely related to the missions of the community partners. Topics the students learn about from their readings will reveal their real-world relevance when students hear the issues, perspectives, and context of their readings echoed in the words of our community partners.

Through videos and lectures, they will study common systems and tools used in small-scale farming operations such as high tunnels, automated irrigation, compost, and raised beds and then during site visits, tours, and volunteer work, they get to see those systems, ask questions of practitioners, and work with them.

Readings on community engagement, "The Outsider: An Uneasy Role in Community Development" and "Building partnerships with college campuses: Community perspectives", along with in-class empathy activities equip students with mindsets and approaches for how they will think and act when entering community. For many OSU students, entering majority-black spaces such as the Church of Christ of the Apostolic Faith, one of the oldest and largest black congregations in Columbus, comes with an acute sense of "otherness", therefore providing a valuable real-world opportunity to grapple with these concepts.

Public Demonstration of competence in academic settings and, if possible, in the community engagement site. Please link this expectation to the course goals, topics and activities and indicate *specific* activities/assignments through which it will be met. *(50-500 words)*

The final synthesis assignment of the semester, which links all three course GOALS, asks students to develop a grant proposal based on a fictional call for proposals which seeks development of systems, tools, or other engineering-related designs to enhance the productivity and profitability of small scale community-based farms and gardens.

This assignment includes both a written portion and a presentation. The preference is for presentations to take place at a community site, or, if scheduling and weather do not cooperate, it would take place in a space on campus with community members invited. Since this is a redesign of an existing course, past final presentations have taken place in one of our community partner's gardens with food and time for both informal socialization as well as formal group reflection. Students, their peers, other staff and faculty, and community members have all been invited.

Experiences with diversity wherein students demonstrate intercultural competence and empathy with people and worldview frameworks that may differ from their own. Please link this expectation to the course goals, topics and activities and indicate *specific* activities/assignments through which it will be met. *(50-500 words)*

Conceptual understanding of food justice concepts (GOALs 1 and 3) inherently involve studying stakeholders and their various worldview frameworks including, but not limited to, those of farmworkers, citizens living in "food deserts", policy makers, farmers, community advocates, and children. Selected chapters from Food Justice focus on issues and perspectives related to these stakeholders.

Through selected readings from the Field Guide to Human-Centered Engineering, students are led through a design process designed to help them understand the importance of empathetically seeing an issue or problem through the eyes of their partners.

As part of the context/background phase 1 of the class, students will be exposed to instructor-led and guest lectures, activities, and readings associated with community-academic partnerships. Students will learn that successful partnerships and successful deployment of designs hinge on inter-cultural and interpersonal competencies. Two readings in particular focus on these issues: "The Outsider: An Uneasy Role in Community Development" summarizes a researcher's interviews with community development professionals entering communities and the strategies, mindsets, pitfalls they experience. "Building partnerships with college campuses: Community perspectives" summarizes a focus group discussion of community advocates on their experiences partnering with universities.

Further, during class, students will engage with exercises related to empathy. These components were developed in partnership with Dr. David Delaine (formerly of the Engineering Education Department), part of whose research focused on the role of empathy in engineering education. As such, empathy modules and activities include research-backed themes such as affective sharing, affective responding, and mode switching. Students will have opportunity to practice some of these strategies in the classroom, and will be asked to reflect on this experience.

These readings and activities, and associated write-to-learn assignments, will provide a theoretical grounding for inter-cultural and interpersonal competencies involved in community-based food justice work. Students will have the opportunity to experience community engagement with these theories and practices in mind as they participate in the various on-site community activities listed in "Interactions with faculty, peers, and community" question above. A part of the write-to-learn assignments associated with the community engagement events include asking students to reflect on inter-cultural and interpersonal experiences and ways in which the theoretical frameworks discussed in class were relevant.

Explicit and intentional efforts to promote inclusivity and a sense of belonging and safety for students, e.g. universal design principles, culturally responsible pedagogy. Please link this expectation to the course goals, topics and activities and indicate *specific* activities/assignments through which it will be met. *(50-500 words)*

One important way this course tries to promote inclusivity is through expectations and requirements around the service-learning aspect of the class. Literature on university service-learning courses mentions the need to make service-learning accessible to all, including non-traditional students. The syllabus includes a statement about the community engagement activities, stating that any student unable to attend out-of-class time activities due to life commitments such as caring for a child or family member, work hours, health issues, or other will not be penalized if they are unable to attend. Students in any relevant situation are asked to speak with the instructor so that alternative experiences and contributions can be arranged.

In the first phase of the class, when students read the Food Justice Chapter 2 "Accessing Food", students will be asked as part of their write-to-learn assignment to play the online game SPENT (playspent.org), to help students broaden their thinking about the food experiences of others. The goal of the reading, the game, the assignment, and in-class discussions is to help open eyes to the variety of experiences possible within this topic, and to build an atmosphere of awareness and togetherness as the purpose of the class is to equip students with theoretical and practical knowledge to make a difference in this complex issue.

Following this activity, students will be asked to write reflections on own food story, to be shared with peers. One class session will start with peer-to-peer sharing of these stories, in-class videos, and class discussion to try to establish the fact that everyone has a story to tell regarding food, and that even as those stories can be very different, food is something that connects us all. The goal is to begin a discussion around food and food systems that further fosters a sense of belonging and togetherness.

Finally, a segment of one lecture in the first week of the class will cite the framework of Paolo Freire, specifically to share with students the perspective that anyone who wants to create change in any avenue of life (whether food and agriculture, or any other), must adopt an attitude of "permanent openness" (Freire, P. (1998). Pedagogy of freedom: Ethics, democracy, and civic courage). They must also develop a sense of faith in the capacity of others (Freire, P. (1970). Pedagogy of the oppressed). Students are asked to consider these mindsets with respect to both their community partners but also to their fellow students.

Clear plan to promote this course to get a wider enrollment of typically underserved populations. Please link this expectation to the course goals, topics and activities and indicate *specific* activities/assignments through which it will be met. *(50-500 words)*

The course instructor, along with faculty and staff from the Humanitarian Engineering group, the Engineering Education Department, the Food, Agricultural, and Biological Engineering Department, and the Civil Engineering Department will work with academic advisors, scholars groups, and student organizations to encourage underserved students to enroll in this course.

We will work to advertise the course through student focused organizations such as Engineers Without Borders, Students for Sustainable Resilient Communities, Engineers for a Sustainable World, National Society of Black Engineers, Society of Hispanic Professional Engineers, and other student centric units such as the Community, Access, Retention, and Empowerment Office (CARE).

We will invite our community partners for an on-campus seminar open to all students. We hope the partners, who themselves are deeply connected to URM K-12 students in their communities, will be able to connect with underserved OSU students as they share their message and mission.

Specific efforts will also be made to expand recruitment outside of STEM to develop an interdisciplinary atmosphere for the course. The course instructor will take the lead on reaching out to academic advisors from other departments to help advertise the course.

Additionally, a long term goal for this course is to collaborate with OSU regional campuses to offer the course, which enroll larger numbers of URM and low-income students than the main campus. Particularly, students from the new Bachelor of Science and Engineering Technology (BSET) program is exclusively offered on regional campuses to make engineering programs more accessible with lower tuition costs and open admission requirements.

From: Osborne, Jeanne
Sent: Friday, August 29, 2025 9:55 AM
To: Martin, Andrew <martin.1026@osu.edu>; Vankeerbergen, Bernadette <vankeerbergen.1@osu.edu>
Cc: Trefz, Kelvin <trefz.1@osu.edu>; Quinzon-Bonello, Rosario <quinzon-bonello.1@osu.edu>
Subject: Concurrence Request: FABENG 3200.01S Cultivating Communities: Engineering for Food Security and Urban Sustainability

Dear Dr. Martin and Dr. Vankeerbergen,

Week 1 of Autumn semester is almost to a close – I hope you and your colleagues are surviving and ready to enjoy a long weekend!

The Department of Food, Agricultural and Biological Engineering in the College of Food, Agricultural, and Environmental Sciences with the College of Engineering is proposing a new course for the GE Theme Sustainability, and as a Service-Learning Integrative Practice, FABENG 3200.01S Cultivating Communities: Engineering for Food Security and Urban Sustainability. This course focuses on food security in the context of urban sustainability with an engineering lens. This course will provide students the opportunity to apply engineering design principles to develop solutions for small-scale farms and urban agriculture, working with community partners to address challenges of food security within communities.

I would appreciate it if you would forward the attached course syllabus to the appropriate units within your college. Given the upcoming Labor Day holiday, we would appreciate feedback by Tuesday, September 16, 2025.

Please let me know if you have any questions or need additional information.

Take care,
Jeanne

THE OHIO STATE UNIVERSITY

Jeanne M. Osborne | *Pronouns: She, Her, Hers*

Assistant Dean for Academic Affairs

College of Food, Agricultural, and Environmental Sciences

100E Agricultural Administration, 2120 Fyffe Rd.

Columbus, OH 43210

Tel: 614-292-1734

Fax: 614-292-1218

e-mail: Osborne.2@osu.edu

Geography RE_ Concurrence Request_ FABENG 3200.01S Cultivating Communities_ Engineering for Food Security and Urban Sustainability

From: Martin, Andrew

To: Osborne, Jeanne; Vankeerbergen, Bernadette

Cc: Trefz, Kelvin; Quinzon-Bonello, Rosario

Subject: RE: Concurrence Request: FABENG 3200.01S Cultivating Communities: Engineering for Food Security and Urban

Sustainability

Date: Wednesday, September 3, 2025 11:54:43 AM

Geography gives concurrence-we have sent it to a few other units and will let you know their response.

Best

Andrew

Andrew W. Martin

Associate Dean for Undergraduate Education

Professor of Sociology

114 University Hall, 230 North Oval Mall

Columbus, OH 43210

614-247-6641 Office

martin.1026@osu.edu

Dear Dr. Belury and Dr. Simons,

Week 1 of Autumn semester is almost to a close – I hope you are surviving and ready to enjoy a long weekend!

The Department of Food, Agricultural and Biological Engineering in the College of Food, Agricultural, and Environmental Sciences with the College of Engineering is proposing a new course for the GE Theme Sustainability, and as a Service-Learning Integrative Practice, FABENG 3200.01S Cultivating Communities: Engineering for Food Security and Urban Sustainability. This course focuses on food security in the context of urban sustainability with an engineering lens. This course will provide students the opportunity to apply engineering design principles to develop solutions for small-scale farms and urban agriculture, working with community partners to address challenges of food security within communities.

I would appreciate it if you would review the attached course syllabus for concurrence. Given the upcoming Labor Day holiday, we would appreciate feedback by Tuesday, September 16, 2025.

Please let me know if you have any questions or need additional information.

Take care,

Jeanne

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Fax: 614-292-1218

e-mail: Osborne.2@osu.edu

FST RE Concurrence Request FABENG 3200_01S Cultivating Communitie Engineering for Food Security and Urban Sustainability

To: Trefz, Kelvin <trefz.1@osu.edu>
Subject: RE: FABENG 3200.01S

Dear Kelvin,

The time for concurrence has passed, and if you can get this one submitted to curriculum.osu along with all the forms and the concurrences today, I can get it on the list for review for the COAA (I will be putting it together for them this afternoon). But, I would need it ready no later than 2:00 today, which is short!

The next meeting is October 9, so that may be the target. I think you were copied on all the concurrences, but I have Geography in ASC, FCoB (Keely Croxton), CoL (Anne Ralph) CoPH (Amy Ferketich – just got last night), ACEL, HCS and ENR. No response that I find for FST, so concurrence is assumed.

Let me know and thanks!

Jeanne

FCOB Re_ Concurrence Request_ FABENG 3200.01S Cultivating Communities_ Engineering for Food Security and Urban Sustainability

From: Croxton, Keely

To: Osborne, Jeanne

Cc: Trefz, Kelvin; Quinzon-Bonello, Rosario

Subject: Re: Concurrence Request: FABENG 3200.01S Cultivating Communities: Engineering for Food Security and Urban Sustainability

Date: Friday, August 29, 2025 10:29:47 AM

Dr. Osborne,

I feel comfortable giving concurrence on that one myself. It sounds like an interesting course and doesn't step on our toes.

Hope you all enjoy the holiday weekend!

Keely

Keely L. Croxton, PhD

Associate Dean of Undergraduate Programs & Global Engagement

Prof. of Logistics

Fisher College of Business

The Ohio State University

croxton.4@osu.edu

MCoL RE_ Concurrence Request_ FABENG 3200.01S Cultivating Communities_ Engineering for Food Security and Urban Sustainability

From: Ralph, Anne <ralph.52@osu.edu>

Sent: Friday, August 29, 2025 10:23 AM

To: Osborne, Jeanne <osborne.2@osu.edu>

Cc: Trefz, Kelvin <trefz.1@osu.edu>; Quinzon-Bonello, Rosario <quinzon-bonello.1@osu.edu>

Subject: Re: Concurrence Request: FABENG 3200.01S Cultivating Communities: Engineering for Food

Security and Urban Sustainability

The College of Law is pleased to grant concurrence for this course. It looks fantastic!

Please let me know if there are any other ways we can be supportive.

Best,

Anne

Anne E. Ralph

Morgan E. Shipman Professor in Law

Associate Dean for Academic Affairs & Strategic Initiatives

Michael E. Moritz College of Law

55 West 12th Avenue | Columbus, OH 43210

614-247-4797 Office | **ralph.52@osu.edu**

Pronouns: she/her/hers

From: Ferketich, Amy <ferketich.1@osu.edu>
Sent: Tuesday, September 16, 2025 8:33 PM
To: Osborne, Jeanne <osborne.2@osu.edu>
Cc: Trefz, Kelvin <trefz.1@osu.edu>; Quinzon-Bonello, Rosario <quinzon-bonello.1@osu.edu>
Subject: RE: Concurrence Request: FABENG 3200.01S Cultivating Communities: Engineering for Food Security and Urban Sustainability

Hi Jeanne,

Sorry for the delay. We have no concerns with this course. This course might be of interest to our BSPH student!

Thanks,

Amy

ACEL Re_ Concurrence Request_ FABENG 3200.01S Cultivating Communities_ Engineering for Food Security and Urban Sustainability

From: Filson, Caryn <filson.5@osu.edu>
Sent: Friday, September 12, 2025 11:39 AM
To: Osborne, Jeanne <osborne.2@osu.edu>; Washburn, Shannon <washburn.130@osu.edu>
Cc: Shearer, Scott <shearer.95@osu.edu>; Trefz, Kelvin <trefz.1@osu.edu>; Quinzon-Bonello, Rosario <quinzon-bonello.1@osu.edu>
Subject: Re: Concurrence Request: FABENG 3200.01S Cultivating Communities: Engineering for Food Security and Urban Sustainability

Concurrence has been granted for this course.

Faculty feedback:

I think this can receive concurrence from us since – while it does talk about topics that I teach in a way, it is very clearly set in engineering.

Caryn Filson, Ph.D. Associate Professor

Agriscience Education Program Coordinator

College of Food, Agricultural, and Environmental Sciences

Department of Agricultural Communication, Education, and Leadership

200 Agricultural Administration Building I 2120 Fyffe Road Columbus, OH 43210

filson.5@osu.edu

From: Klooster, Wendy <klooster.2@osu.edu>
Sent: Wednesday, September 10, 2025 7:33 PM
To: Osborne, Jeanne <osborne.2@osu.edu>
Cc: Karcher, Doug <karcher.3@osu.edu>; Barker, David <barker.169@osu.edu>
Subject: Re: Concurrence Request: FABENG 3200.01S Cultivating Communities: Engineering for Food Security and Urban Sustainability

Hello, Jeanne

Thank you for contacting HCS regarding concurrence for the proposed FABENG 3200.01S course. We appreciate the opportunity to review the proposed course content and activities. We do note substantial similarity to existing HCS courses such as HCS 2306 and HCS 2307 with the emphasis on farm design, farm tools, and food production, however this similarity is approximately 50% and below the 70% threshold for a duplicative class.

FABENG 3200.01S does not directly duplicate any existing class we offer, and thus we are unable to refuse concurrence.

HCS (in collaboration with SENR) has recently submitted and received college approval of an undergraduate certificate program on “Urban Agriculture & Community Food Systems Certificate” (UACFSC). If approved for offering, FABENG 3200.01S could be a valuable component of this undergraduate certificate. However, two courses in the UACFSC, namely ENR 3500 and AEDEcon/PUBAFRS/CRPlan 5900, appear to have substantial similarity to FABENG 3200.01S.

With acknowledgement of these concerns and opportunities, we provide concurrence for FABENG 3200.01S.

Best,

Wendy

W. S. Klooster, Ph.D. (she/ her)

klooster.2@osu.edu | 217B Howlett Hall

Schedule a meeting: go.osu.edu/klooster

SENR Re_ Concurrence Request_ FABENG 3200.01S Cultivating Communities_ Engineering for Food Security and Urban Sustainability

From: Pintor, Lauren <pintor.6@osu.edu>
Sent: Wednesday, September 3, 2025 11:11 AM
To: Osborne, Jeanne <osborne.2@osu.edu>; Haab, Timothy <haab.1@osu.edu>
Cc: Shearer, Scott <shearer.95@osu.edu>; Trefz, Kelvin <trefz.1@osu.edu>; Quinzon-Bonello, Rosario <quinzon-bonello.1@osu.edu>
Subject: Re: Concurrence Request: FABENG 3200.01S Cultivating Communities: Engineering for Food Security and Urban Sustainability

Dear Jeanne,

Thank you for the opportunity to review the syllabus for FABENG 3200.01S: Cultivating Communities – Engineering for Food Security and Urban Sustainability.

After review and consultation with SENR faculty, we do not see significant overlap with our existing courses (≥70%). While the proposed course touches on some similar themes as ENR 2501 (Introduction to Environmental and Natural Resources), ENR 3500 (Community, Environment, and Development), RS 4500 (Sociology of Global Agriculture and Food Systems), ENR 5600 (Sustainable Agriculture and Food Systems), RS 5530 (Sociology of Agriculture and Food Systems), and occasionally in Capstone projects, the scope and focus of FABENG 3200.01S are complementary rather than duplicative.

Faculty were particularly supportive of the course's emphasis on experiential and service-learning approaches, and felt it would be a valuable addition for students interested in food systems, urban sustainability, and community-based problem solving.

On behalf of SENR, I am happy to provide concurrence for this course proposal.

Best regards,

Lauren

THE OHIO STATE UNIVERSITY

Lauren M. Pintor (she, her)

Associate Professor of Aquatic Ecology

Associate Director of Undergraduate Education

School of Environment & Natural Resources

210 Kottman Hall, Columbus, OH 43210

Email: pintor.6@osu.edu