

Sustainable Food Systems in China

Online UCalgary Group Study Program, Spring 2025

Please note: Program Itinerary is subject to change

Note that many of the activities in this program are intentionally designed to be asynchronous. There will be options to attend live lectures and interact with your classmates, but all lectures will be recorded to maximize accessibility as you balance this course with other summer commitments.

Mondays will usually focus on an overview of the topic for the week, while Wednesdays will focus on the key parts of the readings and how they relate to the quizzes, assignments, and discussions. Therefore, Wednesday sessions will include “how-to” tutorial videos and end with a Zoom session to review material and expectations, work through pilot exercises, and answer questions.

Week	Date	Activities
1	May 5	Introduction to plant-pollinator interactions in Canada and China. 12-3pm: In-person outdoors gathering (optional) with tutorial on iNaturalist.
1	May 7	Lecture videos: What are Sustainable Development Goals? What is food security? 2-3pm: Zoom debrief and help with instructor.
2	May 12	Introduction to the research of Dr. Yan-Bing Gong and Ya-Ting Zhou of Wuhan University, presenting their recent results pertaining to “Urban Pollination Networks” and “Pollination of Loquat Trees in Urban Orchards”. This will be followed by guided discussions and online asynchronous Q&A sessions regarding the pollination of loquat and other important crop species in China.
2	May 14	Lecture videos: Foods for humans; why do humans eat what they do? Comparison between China and Canada on common fruits/vegetables and their pollinators. 2-3pm: Zoom debrief and help with instructor. Quiz #1 (Due May 20)
3	May 19	<i>Victoria Day – holiday, no classes</i>
3	May 21	Lecture videos: Climate change, pollinator biodiversity, and the threat to food security; nocturnal pollination. What foods contribute to CO ₂ emissions? 2-3pm: Zoom debrief and help with instructor. Assignment #1: Climate Change Vulnerability Assessment for an important crop species and a wild pollinator species in China and Canada. (Due May 25)

4	May 26	<p>Study topic: Plant-pollinator relationships in Southern Alberta, with special reference to edible wild plant species such as Saskatoon and strawberry. Discussions will involve a comparison of data in China and Canada, noting common pollinators and plant taxa in both systems. Students will be informed about ongoing rare plant walks underway in Calgary to gain further information on plant-pollinator relationship in culturally important species (attendance at the plant walks is optional for students).</p>
4	May 28	<p>Lecture videos: Plant-pollinator relationships. What crops require pollinators? How does agriculture threaten pollinators and create conflict in reaching sustainable development goals? What are the policies regarding sustaining healthy pollinator populations in China and Canada?</p> <p>2-3pm: Zoom debrief and help with instructor.</p> <p>Quiz #2 (Due June 1)</p>
5	June 2	<p>Study topic: Knowledge gaps in plant-pollinator relationships for food security. What are the pollinators of important crops? What other plants do these important pollinators rely on?</p> <p>Assignment #2: Restoring healthy pollinator communities; what actions lead to better pollination of a crop, with comparisons of restoration in China and Canada? This assignment features the iNaturalist plant-pollinator joint project. (Due June 8)</p>
5	June 4	<p>Lecture videos: Students will be guided through experiential learning activities to estimate 1. How is climate change forecasted to impact food security in northern temperate regions? 2. How is our nutrient supply affected by pollinators? 3. How are pollinators forecasted to be impacted by climate change? Students will work through material that will allow them to explore three important crops predicted to be successful with sustainable agricultural practices over the next decades and calculate their nutritional qualities.</p> <p>2-3pm: Zoom debrief and help with instructor.</p>
6	June 9	<p>Study topic: Sustainable nutrition. What nutrients do pollinator-dependent crops provide for the human diet?</p> <p>Quiz #3 (Due June 12)</p> <p>Assignment #3: What underutilized crops can be sustainably pollinated in China and Canada? What nutrients do they provide? (Due June 16)</p>
6	June 11	<p>2-3pm: Zoom wrap-up session to clarify any outstanding questions with the final quiz & assignment.</p>