

Plants and People (Biology 3351, FA 2023)

Instructor: Dr Azim Mallik

Department of Biology (Office: CB 4054)

Course outline

Rational:

Plants are the basis of all lives on earth because they are the primary produces. Plant communities in the ecosystem provide goods and services to man, the rest of the animal and microbial kingdom and maintain our planet's environment. Peking man's cave excavation revealed 300,000 year-old walnuts, hazel nuts, pine nuts and rose hips, roasted Chinese hackberry seeds. So human has a very long association with plants. Over time our ability to manipulate plants became increasingly sophisticated. Human uses approximately 3000 plants as food, of which 200 plants have been domesticated as food crops and 20 agricultural plants are highly modified. We need to understand and appreciate the fundamental role plants play in our daily lives.

Course content & Learning outcome:

Plants and people have been interacting since prehistoric time. In this course we shall discuss this interaction from the perspectives of history, geography, politics and economics. We shall start with man's use of plants in hunting gathering society, hydraulic society, discuss agricultural organization, talk about green revolution and modern agriculture. We shall discuss how spice trade opened up the intercontinental sea routes beginning the era of discovery, plantation agriculture, slave trade and the idea of monopoly. We shall discuss some plants of economic importance such as food, fibre, medicine, and narcotic plants in a greater detail. At the end of this course, you will have a good grasp of how plants and people have always been intimately associated with each other. Through expedition, modification, cultivation, and trade man moved plants around the world and plants useful traits in turn changed our society.

Course structure:

Class lectures (1.5 hrs, twice a week)

Panel presentations by a group of 4-5 students in the class on selected topics related to plants and people. Term papers will be written based on the contents of the panel presentation.

Textbook:

Required text: Plants & Society by Estelle Levetin and Karen McMohann (9th Ed.)

Additional texts: Economic Botany: Plants in Our World by Simpson and Ogorzaly (3rd Ed.)

Plants for Man by R.W. Schery (2nd Ed.) (unfortunately out of print)

Others books and papers will be cited in the class time to time

Course evaluation & Important Dates

Assignment	Due Date	% of final Grade
Submit group members. [via email to rrmarcha@lakeheadu.ca]	September 18, 2023	Not graded
Submit group presentation & term paper topic. [via email to rrmarcha@lakeheadu.ca AND amallik@lakeheadu.ca for feedback and approval]	September 25, 2023	Not graded
Midterm	October 4, 2023	20%
In-class quiz (20 minutes)	October 20, 2023	5%
Group presentation & term paper outline	October 27, 2023	5%
Group presentation	November 13, 2023*	15%
Group term paper	November 23, 2023	15%
Final Exam	TBA	40%

*Group Presentations will take place over two days, November 14 and 16, since we have many groups. However, each group must submit their presentations (either PowerPoint or PDF) to D2L by November 13 to make it fair for all. The version submitted must be the version presented unless there is a valid reason to update the submission after November 13.