

## Plants and People (Biology 3351, FA 2016)

Instructor: Dr Azim Mallik

Department of Biology

### 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:

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 finally modern agriculture including genetic engineering. 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 in a greater detail some plants of economic importance such as food, fibre, medicine and narcotic plants.

#### Course structure:

Class lectures (1.5 hrs, twice a week)

Panel presentations by students in the class on selected topics

Term papers each written by a group of 3-4 students on a topic related to Plants & People.

#### Text book:

**Required text:** Plants & Society by Estelle Levetin and Karen McMohan

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

**Lecture Manual:** Plants and People by A.U. Mallik, available at LU Book Store.

#### Course evaluation:

a) A one-hour mid-term exam	20%
b) A panel presentation	15%
c) Written panel report as term paper	15%
d) A three-hour final exam	<u>50%</u>
	100%