

Why should students take EPP 201 Impact of Insects and Plant Diseases on Human Societies

This course is designed primarily for students outside of the disciplines of Entomology and Plant Pathology. It has been developed to provide information covering a variety of topics of interest to future artists, business majors, journalists, lawyers, scientist, teachers, and others, so that they can develop an appreciation for the impact insects and plant diseases have on our environment, society and our daily lives. This will be accomplished by introducing topics and discussions on how these insects and plant diseases have affected the course of human history, their impact on the health and welfare of societies, their influence on the arts, literature, religion, and cultural activities, and the economic impact of protecting food sources and managing pest species.

This course is both practical and usable providing students the opportunity to acquire a knowledge base and skills to assess present and future problems arising from these organisms. For example, insects are the most successful group of animals on earth comprising over 90% of all animals known. We cannot escape contact with insects and related arthropods as they are not only found on our bodies, but we routinely eat insects and their body parts in our food. Did you know the legal tolerance for manufactures is eight insect parts per chocolate bar, 30 fragments per 100 grams of peanut butter, and 2,500 aphids per 10 grams of beer. Insects such as the termites are responsible for billions of dollars in damage annually. Insects and plant diseases are annually responsible for the loss of 15% to 33% of the worlds food supply. In addition, they continually disrupt the environment of our forests resulting in aesthetic and economic losses. Several insect species are responsible for a variety of illnesses and diseases not only in us, but our pets and food sources. Few are aware that insects are responsible for one in every six people suffering from an illness in the world.

Approximately one half of the lectures will deal with insects and plant diseases in a global context. We will review the effects of insects and plant diseases on world history. For example, the bubonic plague killed 25% of the world's population in a single pandemic during the 14th century and the potato famine was responsible for the mass migration of peoples from Ireland to the US during the 1800's. We will also review the current status of management of plant diseases and insect-transmitted diseases. For example, malaria infects 10,000,000 people worldwide annually, yellow fever is endemic in Africa, and the number of victims of West Nile Virus continues to grow annually in the US.

We will discuss how insects and plant diseases have affected the course of our history and have become imbedded in modern society. Insects have been used as entertainment, symbols of religions, (scarab beetles by Egyptians, butterflies by Hopi Indians, etc.), and commonly appear in our language ('Bug off!', 'like flies to honey', 'busy as a bee', 'float like a butterfly, sting like a bee'). We even wear makeup and use clothing dyes made from insects. We will also discuss how to keep our global resources from being permanently contaminated with pesticide byproducts.

So, why would future artists, journalists, lawyers, scientists, teachers, and others care about this information? Because **Insects affect what we wear, what we say, what we eat, our quality of life, how long we live, and they do this on a global scale.**