**CSB 353H1S –** PLANT-MICROORGANISM INTERACTIONS AND PLANT IMMUNITY

24L

**Lecturer:**

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**Exclusion:** CSB 452H1

**Prerequisite:**  BIO 230H1/255H1

**Recommended Preparation:**  BIO 251H1

Contrary to the common notion, plants possess dynamic and sophisticated immune systems to fight to pathogenic microorganisms. CSB353H1 is a lecture course, which discusses the ways plants have co-evolved with microbes in an on-going arms race, resulting in sophisticated strategies to protect themselves. This course presents an overview of these strategies with examples of bacteria, fungi, oomycetes and viruses that have evolved intimate associations with plants. The main focus will be the discussion of their interaction at the molecular level and components of the plant immune system and signal transduction. Finally, biotechnological approaches utilizing scientific knowledge to protect plants will be introduced.

For writing practice, a short writing assignment (1-2 pages) will be included. In addition, reading materials (research articles) will be used to practice reading and interpretation of scientific data.

**Required Text:** None required. Reading assignments will be on web links and/or on short term loan in the ESC library. Recommended text books will be announced later.

**Evaluation**: mid-term test (45%), final exam (45%), essay (10%)