

**Principles of Plant Science AG 140**  
**Imperial Valley College**

**Course CRN:20790**  
**Instructor Baldev Singh**

**Class Timmings :5:30-8:40 M,W**  
**Deadline to drop with ‘ W’ :May 14 2016**

**Contact Info:** Email: [baldev.singh@imperial.edu](mailto:baldev.singh@imperial.edu)

**Course Contents**

An introduction to plant science that examines agricultural, forest, landscape and other significant uses of plants. Included are structure, growth processes, propagation, physiology, genetic improvement and biotechnology, ecology, soil environment, biological competitors and symbionts of plants. The production, harvest, and utilization of the principle crops grown in California and the Imperial Valley will be included. Laboratory work is required. (CSU, UC

**Required Text :***Introduction to Plant Science*, by Rick Parker. Thompson Delmar Learning –/  
*Fundamentals of Plant Sci* by Glass & Parker, Plus Power Points and other Electronic Resources. Study material free from copy Right will be placed on Blackboard.

**Course Objectives:**

- Identify Plant & soils as a natural resource that must be managed and preserved;
- Identify and describe methods of irrigation that are best suited to applicable crops;
- Understand macro and micro plant nutrients and the related nutrient cycle;
- Describe biological temperature ranges, climate classifications, growing degree days and temperature stress;
- Understand the role that light plays in plant growth and energy storage;
- Describe biological interactions including weeds, growth regulators, disease, pests and integrated pest management (IPM);
- Understand photosynthesis, plant photosystem, transition of light energy to chemical energy, and the Carbon Cycle;
- Understand regional differences affecting plant species compatibility, basic genetics, hybrid superiority, measurement of plant growth and applied knowledge;
- Understand germination, roots and their development, shoot growth and factors affecting plant growth;
- Understand plant propagation including sexual and asexual processes;
- Understanding biotechnology advancements including genetic engineering, transgenic plants and related policy;
- Learn to read, understand, interpret and apply the information contained in research reports;
- Identify major agronomic, vegetable, grain, forage, legume & fruit crop species important to the United States in general and the Imperial Valley in particular;
- Investigate careers in plant science and horticulture.

**General Expectations:** Students must comply with all rules and regulations of Standards of Student Conduct outlined in the Imperial Valley College General Catalog. No food or drinks are allowed in classroom.

**Cell Phones and Pagers:** All cell phones, pagers and other noise making devices be **turned off or to vibrate** during class. If you must use these devices during class, I ask that you quietly and discretely leave the room.

**Talking in Class:** Students talking in class while the instructor or a guest is lecturing will be asked to leave. If inappropriate talking continues points may be deducted from your total score.

**Disability Information:** Any student with a documented disability who may need educational accommodations should notify the instructor or the Disabled Student Programs and Services (DSP&S) office as soon as possible. DSP&S Room 2117, Health Sciences Building, (760) 355-6312

**Late & Absent Policy:** Regular attendance in all classes is expected of all students enrolled. Instructors are required to include a student's attendance record in computing grades. A student may be excluded from further attendance in a class during a semester when absences, after close of registration, have exceeded the number of units for the class (4). You should come to class prepared to be an active participant in the learning process. Enhanced learning occurs through interaction with others.

It is your responsibility to make an appointment with the instructor if you have concerns about your progress in the class.

It is your responsibility to complete a DROP REQUEST if you are withdrawing from the class.

You are considered TARDY if you arrive in class after roll has been called. Three (3) tardies constitute one (1) absence. A tardy is valued at -1 point, and an absence is valued at -3 points.

**Class Drop Policy:** It is the responsibility of student to submit dropping forms to the office.

**Grading:** A = 100 – 90%    B = 89 – 80%                    C = 79– 70%    D = 69 – 60%    F = ≤ 59%

Grades will be based on attendance, class participation, notebook, exams and quizzes, Research Paper, and Research Project (SLO)

**Exams and Quizzes:** 3 exams and pop-up quizzes as per time available. To earn points you should be present in class. No Make-Up Exams

**Class Participation:** Each student is expected to read the assigned material before coming to class. This will enable you to participate in the class discussions. Being able to interact in this manner will have positive effects on your quiz and exam performance.

**Assignments , Research Paper and Group Presentation:** You will be required to work in a group on one class presentation. I will provide class time to do group work. The student will then use the information to develop an informed position that will then be presented in the form of PowerPoint presentation.

**Notebook:** Each student is required to keep a( Lab notebook/Exercise Manual) which will include all notes, handouts, and other assignments which may be assigned. Points will be awarded for completeness and neatness.