

IMPERIAL VALLEY COLLEGE
Principles of Plant Science (Ag 140) Syllabus, Spring 2014

Course name and #: principles of Plant science (Ag 140)	Units: 4 , Section #: 20209
Lectures: Monday: 11:50 AM to 3:00 PM	Lecture Room: 2732
Laboratory: Wednesday: 11:50 AM – 3:00 PM	Lab Room: 2732
Instructor: Oli Bachie, PhD for Patrick Pauley, PhD	Office: xxxx; Hrs: By appointment only
Email: oli.bachie@imperial.edu or obachie@hotmail.com	Phone (Dept. Secretary): 760-355-6201

Note: The best way to reach me is through the e-mail. However, if you have questions you can talk to me right after the lecture / lab classes. You may also leave messages for me in my mailbox here at the Science department or call the department Secretary.

Spring Calendar

Spring term begins	Jan 21
Lincoln Day Holiday	February 14-15
President's Day (no class)	February 17
Spring recess (campus closed)	Apr 21-26
Spring term ends	May 16

WITHDRAWAL POLICY

Last day to withdraw from a semester class & without a "W" is _____, 2014

STATEMENT OF ACCESS: Students with special needs are encouraged to meet with instructors to discuss the opportunity for academic accommodation and be referred to disabled student program and services (DSP & S) as soon as possible. The DSP&S office is located in Building 2100, telephone 760-355-6313 if you need to be evaluated for educational accommodations.

Attendance Policy: A student who fails to attend the first meeting of a class or does not complete the first mandatory activity of an online class will be dropped by the instructor as of the first official meeting of that class. Should readmission be desired, the student's status will be the same as that of any other student who desires to add a class. It is the student's responsibility to drop or officially withdraw from the class. See General Catalog for details.

Regular attendance in all classes is expected of all students. Since you knowingly signed up for this time slot, you planned on being at each class session. However, I do understand that things happen and if you must miss a class I would ask that you let me know ahead of time. In an event of an absence, I strongly encourage you to contact a classmate to obtain materials/information that you may have missed. A student whose continuous, unexcused absences exceed the number of hours the class is scheduled to meet per week may be dropped.

REQUIRED COURSE MATERIALS: NOTE: "Required" means that you **must** have these.

Textbook: Rich Parker (2004). Introduction to Plant Science. Thompson Delmar Learning Publisher

Lab Manual—not yet identified.

Additional reading materials

- Glass M (2009). Fundamentals of plant science. 1st edition. Cengage Learning. ISBN: 9781418000813
- McMahon M.J., Vincent R (2007). Hartman's Plant Science: Growth, dev't and utilization of cultivated plants. 4th edition. Pearson / Prentice Hall.
- Allaby M (2008). A dictionary of plant sciences. Oxford University Press

SCANTRONS (required)

You may be asked to bring your own scantrons if exams are going to be a multiple choice format or combinations. These testing forms should be available at the bookstore, if not ask the department where you can get them. **Note:** you must have the correct forms when necessary. You may need one scantron form (#882-ES) and #2 pencils for each exam.

COURSE DESCRIPTION:

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 which introduces horticultural techniques (CSU, UC).

INSTRUCTIONAL OBJECTIVES

Upon satisfactory completion of the course, students will be able to:

- Understand human relationship with plants. Recognize the economic importance of agriculture and forestry; the development of cultivated species; agro-ecology, and the role of the production of crop plants in feeding the world's population.
- Understand fundamentals of botany and plant physiology as they pertain to plant classification, structure, growth, and post-harvest physiology.
- Understand the environmental and economic factors involved in plant production systems. Relate to plant production the environmental parameters of light, temperature, soil, water, pests and disease, as well as such economic factors as markets and transportation, and ecological factors such as local-scale biodiversity and invasions by exotics.
- Understand plant improvement, including plant breeding, seed production, and basic processes in plant biotechnology.
- Understand the issues involved in plant transgenic including food safety and genetic integrity of ecological systems and non-transgenic crops.
- Describe the important plant and crop systems such as large-scale industrialized crop production, organic farming, tropical agriculture and forestry, gardening and landscaping etc.
- Understand the basic principles of soil management as they relate to soil properties, plant nutrition, fertilization, crop rotation, multiple and relay cropping, tillage, and soil degradation.
- Understand the basic principles of the management of weeds, arthropods (insects), and pathogens.
- Understand the basic principles of irrigation as they pertain to crop including types of irrigation, crop water use, and drainage.
- Recognize areas of harvest and post-harvest handling as they pertain to the different types of agricultural crops; value added strategies for plants.

STUDENT LEARNING OUTCOMES (SLO)

Upon course completion, the successful student will have acquired new skills, knowledge, and or attitudes as demonstrated by being able to:

- 1) Identify and discuss basic needs of plant crops found in Imperial County, California & major crop producing states in the US (ILO1, ILO2, ILO4).
- 2) Accurately discuss and explain a crop rotation program as well as the benefits that are derived from that production system (ILO1, ILO2, ILO4).
- 3) Identify and discuss major crop commodities grown in Imperial as well as the season that those crops are planted and harvested (ILO1, ILO2, ILO4).

- 4) Identify and discuss basic pest avoidance procedures for commonly grown crops in the Imperial Valley (ILO1, ILO2, ILO4).

CLASS ETIQUETTE: Turn Cell phones and Pagers OFF during all lecture, lab and exam hours!

EXAMS and GRADING:

Exams will be of the multiple-choice variety, true/false, a simple essay or a combination of two or more types. Questions for the exams and quizzes will be taken from my lecture, your text book and the assignments. You will **not** be tested on subjects from the book or anywhere unless it has been discussed in a lecture or lab. Three lecture exams are scheduled (tentative) and will have equal weights. The exams will not be cumulative. These examinations are primarily concept-oriented and may not cover each and every detail found in the chapters. Exams are obviously mandatory. Therefore, in order to get a high grade, attendance of classes is essential. Please **be on time** for exams; it is discourteous to others to come late because it is distracting to have someone else walk in tardy. Here are the tentative exam schedules for the Spring 2014;

Exam 1: February 26, 2014

Exam 3: May 14, 2014

Exam 2: April 26, 2014

NB: expect additional quizzes or tests that may pop up as needed. If given, they will count towards the exam grades

Make-up exams (upon verified excused absence). As can be seen above and the subsequent schedule page, I have given you the dates of the exams well ahead of time (see attached schedule) to allow you to make appropriate arrangements. Therefore, you must make all possible effort to take the exams on the specified date (s). However, if illness or other serious problems beyond your control prevents you from taking the exam, I expect you to provide some kind of verification of the reason from the student health services or your health provider. You must **bring a valid excuse** to be accorded the privilege of taking a make-up. You must also contact me **no later than two days** after the regular exam that you missed. No makeup shall be given for missed quizzes/tests. If there is a make-up exam it will be scheduled at the instructor's convenience during the last week of the semester. The make-up exam will be a of different format from the regular exams and may consist of **essay and short answer questions only**. Make-ups will be given **for the first 2 exams only**. If you fail to notify me of the reason for your absence, or neglect to take the make up on the scheduled date, you will receive a zero grade for the exam you missed.

LABORATORY

Lab attendance is mandatory, although no lab schedules are planned yet. To account for lab attendance, I will take attendance at each lab meeting. If you fail to attend any of the lab activity, you will receive a zero for the lab write-up or any of the credits for the lab you missed. The labs are supplemental means of instruction. They are expected to provide hands-on experience to some of the topics we cover during the scope of the course. Lab reports depend on the nature of the lab and may not be collected weekly. There will be a total of about --- lab activities, each worth about 5-10 points. There will be lab quizzes, but may or may not be announced in advance. If you arrive after the quiz is over you will not be able to make it up. Each lab quiz will worth 5-10 points.

NOTE: Writing a lab report for the lab you have not attended will not earn you any grade.

CHEATING/Academic dishonesty

All exams and quizzes are individual assignments. It is hoped that cheating will not be a problem in this course. Nevertheless, to avoid any possibility if you not recognizing what the consequences may be, my policy is that if **you are caught cheating on an exam or any test, you will receive a zero on that particular exam or test or assignment**. In addition, **the event will be reported to the campus authorities and may lead to additional**

actions by the college. Do not sacrifice your academic career because of your unpreparedness and/or irresponsibility. When taking an exam please keep your eyes on your own paper. To understand more clearly what constitutes academic dishonesty, please refer to the Victor Valley College Catalogue.

- Cheating is defined as fraud, deceit, or dishonesty in an academic assignment or using or attempting to use materials, or assisting others in using materials, or assisting others in using materials, which are prohibited or inappropriate in the context of the academic assignment in question. Acts of cheating include, but are not limited to the following: (a) plagiarism; (b) copying or attempting to copy from others during an examination or on an assignment; (c) communicating test information with another person during an examination; (d) allowing others to do an assignment or portion of an assignment.
- Plagiarism is to take and present as one's own the writings or ideas of others, without citing the source. You should understand the concept of plagiarism and keep it in mind when taking exams and preparing written materials. If you do not understand how to correctly 'cite a source, you must ask for help. Please refer to the General School Catalog for more information on academic dishonesty or other misconduct.

General Etiquette: There are a few things we need to emphasize so that we together can create an atmosphere where learning and teaching are possible, an atmosphere that is based on mutual respect. This means behavior on the instructor's and on your part that is appropriate for a lecture and lab setup. For example, persistent talking during the lecture cannot be tolerated; it is disrespectful and disturbing to me and to your fellow students surrounding you. If such disturbance persists, I may resear you if necessary. Cell phones must be turned off. *Ringin cell phones really disturb the flow of a lecture and the thoughts of everyone in the room. Drinkin, drugs, and violent behavior are some of the cause for dismissal from IVC.* Please also note that No children are allowed in the classroom. There is a strict policy printed in your college bulletin that explains student discipline on campus. Let's work together and make it a successful semester for everyone.

Withdrawing: I will not drop you from the course after the first class meeting. Please be aware of all the deadlines to prevent a "W" from appearing on your transcript. It is up to you to fill out the appropriate paperwork. Any student enrolled in this course after the deadline to drop will receive a letter grade.

Grading policy

Tentative Exams (3) + Quiz/test	70%
Lab Reports	15%
Lab Preparedness (Quizzes & Participation)	15%

Final grades will be awarded as follows:

A = 90 – 100%	B = 80 – 89%	C = 70 – 79%
	D = 60 – 69%	F = < 60%

How to succeed in this course:

1. **Make coming to class a habit:** It is well known that students who come to class regularly get better grades than those who do not.
2. **Be on time to class:** class runs from 11:50 AM – 3:00 PM (both days). Be ready to begin **promptly** at 11:50 AM and don't plan to leave early. Know that on exam days, **no one will be admitted** to class if you come **later than 15 minutes after the start of the exam.**
3. **Be attentive in class:** please sit quietly, pay attention and take notes. Please don't bring cell-phones to the class or put them on vibration mode before the beginning of a class.
4. **Ask questions:** If something is not clear, do not hesitate to ask questions
5. **Be organized:** Use a binder or folder for your notes, handouts, lab works and other course materials to keep them in one place. Bring your binder or folder to class every time.
6. **Be prepared:** Read the chapter of your text book or any other assignment before you come to the class.

TENTATIVE LECTURE & LAB SCHEDULE: Schedule of topics & text chapters to be covered are subject to change at the discretion of the instructor

week	Date	Lecture	Readings	Laboratory
2	27-Jan	Orientation & The Plant Kingdom	Syllabus & Chapter 1-	
	29-Jan	xx	xx	xx
3	3-Feb	Origin of cultivated plants	Chapter 2	
		Structure of cultivated plants	Chapter 3	
	5-Feb	xx	xx	
4	10-Feb	Anatomy of Plants	Chapter 4	
		Soils	Chapter 5	
	12-Feb	xx	xx	xx
5	17-Feb	No Class (holiday)		
	19-Feb	Water	Chapter 6	
		Nutrients	Chapter 7	
6	24-Feb	Temperature	Chapter 8	
		Light	Chapter 9	
	26-Feb	Exam 1		
7	3-Feb	Biological Interaction	Chapter 10	
	5-Mar	xx	xx	xx
8	10-Mar	Photosynthesis	Chapter 11	
		Respiration	Chapter 12	
	12-Mar	Basics of plant growth	Chapter 13	
9	17-Mar	Vegetative growth	Chapter 14	
	19-Mar	Plant propagation	Chapter 15	
10	24	Genetics and Biotechnology	Chapter 16	
	26	Exam 2		
11	31-Mar	Major Agronomic Crops, cereals, forage & oilseeds – ch 17&18	Chapter 17	
	2- Apr	xx		
12	7-Apr	Food and forage legumes	Chapter 19	
	9-Apr	xx		
13	14-Apr	Vegetables	Chapter 20	
	16-Apr			
14	21 & 23 Apr	Spring Recess (No Class)		
	23-Apr	xx		
15	28-Apr	Fruits and Nuts –	Chapter 21-22	
	30-Apr	xx		
16	5-May	Flowers & foliage	Chapter 23	
	7-May	Careers in Plant science and Hort –	Chapter 25	
17	12-May	xx		
	14-May	Final Exam 3		

Note: Students are responsible for any announced changes during class. This syllabus and course schedule are legally binding contracts. By remaining enrolled in this class, you are agreeing to all of the class regulations