

Basic Course Information					
Semester:	Fall 2021	Instructor Name:	Dr. Baldev Singh		
Course Title & #:	Biology 100	Email:	Baldev.singh@imperial.edu		
CRN #:	10928	Webpage (optional):	N/A		
Classroom:	online	Office #:	N/A		
Class Dates:	Aug 16, 2021 – Dec 11, 2021	Office Hours:	6:30-7:30p.m. M&F by email		
Class Days:	NA/Online	Office Phone #:	N/A - Email only		
			(760)355-6201/6155Silvia R		
Class Times:	NA/Online	Emergency Contact:	Murray Math& Sci Division		
Units:	4	Class Format:			

## **Course Description**

This is a comprehensive one semester general biology course for non-majors. Includes life from the molecular to the organismic level of both plants and animals and their interactions within the environment. Special emphasis is put on human biology within appropriate areas of study. Appropriate for general education as well as nursing, pre-professional, and higher-level biology courses. Includes a laboratory component. (CSU, and UC credit limited. See a counselor.)

# Course Prerequisite(s) and/or Corequisite(s)/ Student learning outcomes

**Prerequisite** - MATH 091 or MATH 090 with a grade of "C" or better.

**Student learning outcomes:**Upon course completion, with a grade of "C" or better, the successful student will have acquired new skills, knowledge, and/or attitudes as demonstrated by being able to:

- 1. Demonstrate an understanding of the steps of the scientific method. (ILO2)
- 2. Communicate an understanding of the various patterns of inheritance of genetic traits. (ILO1 & ILO2)
- 3. Explain how the processes of natural selection influence evolution. (ILO1 & ILO2)
- 4. Perform lab activities properly, and correctly analyze lab data. (ILO1 & ILO2)

## **Course Objectives**

Upon satisfactory completion of the course, students with a grade of "C" or better will be able to:

- <u>1</u>. Identify the basic characteristics of all living things.
- 2. Name basic chemical aspects that pertain to life and the concept of homeostasis
- 3. Describe the sub-cellular components for the cell including their structure and function
- 4. Explain the light and dark reactions of photosynthesis
- 5. Explain cellular respiration and its relations to the entire organism.
- 6. Demonstrate knowledge of the structure and function of DNA and RNA.
- 7. Explain protein synthesis and site the central dogma of cell biology.



- 8. Compare and contrast the fundamentals of asexual and sexual reproduction.
- 9. Define ecology and the overall impact of ecology to conditions in the environment.
- 10. Solve problems human genetics and relate advances in genetics to social responsibility of geneticists.
- 11. Identify and relate the functions & systems of the human body; the interrelationship with diseases.
- 12. Classification of plants and animal kingdoms, discuss their evolutions and their relationships.

### **Textbooks & Other Resources or Links**

Lecture Textbook: Biology Concepts and investigations (3rd edition) by Marielle Hoefnagels – SBN: 9781308487663 Publisher: McGraw-Hill.

Laboratory: Lab activities in this online class will not be done in the lab. Instead, the experiments will be modified to accommodate for online course and be regularly posted on Canvas in form of home assignments /videos.

### **Course Requirements and Instructional Methods**

**Lecture information**- This fall 2021 Biol-100 class will be totally online and asynchronous, which means that there are no set hours for the class. Lecture materials, such a Power point (PPT) slides/Videos/Study Guide/ summary will be posted on Canvas every week during the course for the students to study. Course materials covered in this online class will be the same as the regular on-campus classes, and students will gain as much information from this online class as any other biology classes. It is the responsibility of the students to manage their time and learn the class materials.

Lab assignments – The lab assignments/reports/videos basically supplement the lecture PPT materials and students will learn lot of information from their lab reports. The lab exercises will mostly be based on the lab manual that we used in previous semesters, but the experiments will be modified for online class. The instruction for each lab will be posted on Canvas weekly. For the experiments that require wet lab, and we cannot perform them online, we may use short videos that demonstrate the experimental procedures. Students should work on lab assignments, and answer all the questions, and post the complete work on canvas on weekly basis. Students will get 5 to 10 points for each completed lab assignments. Lab assignments will be posted online in every week during the course. The due dates for posting the lab reports are shown in the CANVAS. Submit all assignments /Quiz/Lab reports/Reviews on CANVAS only (No emails please) **Extra credit**: There may be extra homework related to biology for extra credit, and allows students to gain more information about different aspects of biology beyond the class activities.

Quizzes and exams: There will be class quizzes and term exams during the course. The online class schedule, and the information about the lesson plans, lab assignments, quizzes and exams dates will be listed in every Week Lecture /MODULE in CANVAS. Questions in the quizzes and exams come from the materials from lectures power points, chapter review/summary, Lab assignments, and information from any video clips assigned to the class. A variety of testing methods will be employed, including but not limited to true/false, multiple choice, and short answers/definitions. Missing tests and lab assignments; any missed quiz, exam or lab assignment will be marked as ZERO (NO MAKE UP TEST). In case of emergencies or excused situations (with written documentation), a quiz/ test may be taken, but there will be 25% deductions from any MakeUp (It is student's responsibility to get permission from IVC administration)

### ALL QUIZ/ HOME WORK ASSIGNMENTS/LABREPORTS WILL BE ACCEPTED ON CANVAS ONLY NO ASSIGNMENT WILL BE ACCEPTED BY EMAIL.

### **Course Grading Based on Course Objectives**



Exams, each 100 points ......500 points

Lab assignments (5 points each) ......75 points

Research article review/Extra Credit assignment...... 50 points\*

Grading scale: >90% = A, 80% - 89% = B, 70% - 79% = C, 60% - 69% = D, <60% = F

The grades for all class assignments and tests will be posted on Canvas weekly and will be available to you monitor your progress during the course.

#### **Course Policies**

Attendance is critical to student success and for IVC to use federal aid funds. Regular attendance in all classes is expected of all students. A student whose continuous, unexcused absence exceed the number of hours the class is scheduled to meet per week may be dropped. For online courses, students who fail to complete required activities for two consecutive weeks may be considered to have excessive absences and may be dropped.

• 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.Imperial Valley College Course Syllabus – Course Title and number

• Absences attributed to the officially approved events (conferences, contests, and field trips) will be counted as 'excused' absences.

• Acceptable indications of attendance include - submission of assignments, quizzes, exams,

participation in online class discussions and responding to emails from the instructor. Logging onto

Canvas alone is NOT adequate to demonstrate academic attendance by the student

What does it mean to "attend" an online class?

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#### What is online netiquette?

Netiquette is internet manners, online etiquette, and digital etiquette all rolled into one word. Basically, netiquette is a set of rules for behaving properly online.

Students are to comply with the following rules of netiquette: (1) identify yourself, (2) include a subject line, (3) avoid sarcasm, (4) respect others' opinions and privacy, (5) acknowledge and return messages promptly, (6) copy with caution, (7) do not spam or junk mail, (8) be concise, (9) use appropriate language, (10) use appropriate emoticons (emotional icons) to help convey meaning, and (11) use appropriate intensifiers to help convey meaning [do not use ALL CAPS or multiple exclamation marks (!!!!)].



## **Other Course Information**

Academic honesty in the advancement of knowledge requires that all students and instructors respect the integrity of one another's work and recognize the important of acknowledging and safeguarding intellectual property.

There are many different forms of academic dishonesty. The following kinds of honesty violations and their definitions are not meant to be exhaustive. Rather, they are intended to serve as examples of unacceptable academic conduct.

## **IVC Student Resources**

IVC wants you to be successful in all aspects of your education. For help, resources, services, and an explanation of policies, visit <u>http://www.imperial.edu/studentresources</u> or click the heart icon in Canvas.

Disabled Student Programs and Services (DSPS)

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. The DSP&S office is located in Building 2100, telephone 760-355-6313 if you feel you need to be evaluated for educational accommodations Student information, Rights and Responsibilities

Students have the right to experience a positive learning environment. For further information regarding student rights and responsibilities please refer to the IVC General Catalog available online at

http://www.imperial.edu/index.php?option=com\_docman&task=doc\_download&gid=4516&Itemid=762 Imperial Valley College is dedicated to help students skillfully discover, evaluate, and use information from all sources. Students can access tutorials at http://www.imperial.edu/courses-and-programs/divisions/arts-and-letters/librarydepartment/info-lit-tutorials/Anticipated

## **Anticipated Class Schedule/Calendar**

The tentative schedule of lectures /Chapters is given below. However lecture will explain salient points to get basic knowledge .The videos pertaining to Lab Work will be uploaded in Modules and quizzes/lab Reports needs to be submitted as per dates indicated on every week Modules on CANVAS.It is student's Responsibility to check all announcements and due dates on your CANVAS every week. If you have any trouble in logging in to CANVAS you have to contact IVC Helpline/IT department IVC.

Date or Week	Activity, Assignment, and/or Topic	Pages/ Due Dates/Tests
Wk 1( Aug16- 19)	Syllabus & Introduction	
	Chapter 1 Scientific study of life	
		Page 3-16
Wk 2( Aug23-27)	Chapter 2 The Chemistry of life	
		Page21-43
Wk 3 (Aug30-Sept 3)	Ch 3 &4 Cells & Energy of Life	
		Page 48-80
Wk 4 (Sept7-11)	Ch 5 Photosynthesis	Page 84-94
WK 5(Sept13-17)	Ch 6 Cell & Energy Release	Page 98-108



Date or Week	Activity, Assignment, and/or Topic	Pages/ Due Dates/Tests
WK 6(Sept20-24)	Ch 7 &8 DNA Structure &gene function Replication & cell division	Page 112-150
WK 7(Sept27-Oct1)	Ch 9 Sexual Reproduction and meosis	Page 154-166
WK 9( Oct4-8)	Ch 10 Patterns of Inheritance	Page 170-190
WK10(Oct 11-15)	Ch. 12&13 Forces of evolution & Evidence of Evolution	Page 304-352
WK 11(Oct18-22)	Ch 16-18 Evulution & diversity of plants , animals And population ecology	Page305-374
WK 12(Oct 25-29)	Ch 19-20 Ecosystems & biodiversity	Page 378-422
WK 13(Nov 1-5)	Ch 21 &22 Plants ,Function ,Reproduction & Development	Page 426-462
WK14(Nov8-12)	Ch 23-25 Animal tissue, Nervous sences and endocrine systems	Page 467-519
WK15(Nov15-19)	Ch. 27 Circulatory /Respiratory system Ch. 28 Regulating temperature, Nutrients	Page 543-584
WK16(Nov29-Dec3)	Ch. 30 Animal Immune & reproduction Systems	Page590-626
WK17(Dec7-11)	Final Exam	
	***Tentative order of topics/Chapters in lectures***	

\*\*\*Subject to change without prior notice\*\*\*