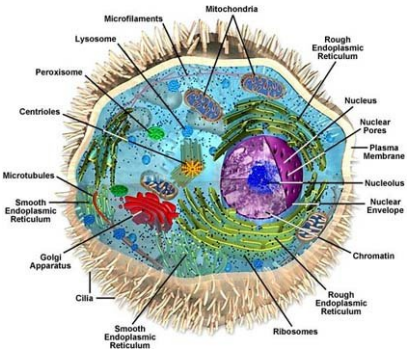

Los Angeles Mission College – Spring 2014

(This is an interactive syllabus: Click on the words that are underlined and you will be connected to a website!)

Biology 3 - Introductory Biology (0136 & 0137)

Lecture: Tuesday & Thursday 7:15-8:40 AM (CMS004)

Lab: Section #0134 Tuesday 8:50-12:00 PM (CMS110
Section #0135 Thursday 8:50-12:00 PM (CMS110)

Instructor: Dr. Par Mohammadian

Office Hours: T and Th: 12:00 – 1:30 PM (Life Science Dept. CMS # 221)

Contact information: mohammp@lamission.edu I 818-833-3424

My Website: www.etudes.org

Important dates: Click on this to see the important dates!

Course Description:

Hours: Lecture - 3 Carnegie hrs/wk, Laboratory - 3 Carnegie hrs/wk; 4 semester units
Articulation: CSUN Biology 101; CSULA Biology 155 & 156; UCLA Life Science 15; UCR Biology 2
Biology 3 course examines the fundamental principles of biology with laboratories emphasizing hands-on investigations. Topics include an introduction to evolutionary theory, basic biological chemistry, cell function and reproduction, cellular respiration and photosynthesis, classical and contemporary genetics, gene expression and an introduction to animal structure and function.
Advisory: English 28 or ESL 8

Student learning outcomes (SLOs):

1) BIO3 students will analyze a scientific experiment and determine the major components.
2) BIO3 students will graph, interpret, and analyze data pertaining to a biological process.
3) BIO3 students will analyze a genetic problem to determine the probabilities of genotypic and phenotypic outcomes.
4) Given a DNA sequence, the BIO3 students will apply the principles of gene expression to

determine the protein product.

Books required:

***Biology**: Concepts and Connections*, Campbell, Mitchell, Reece; Pearson-Benjamin Cummings - 7th edition 2011-ISBN: 1256302406. Please be sure to purchase the book before the start of the semester from the LAMC bookstore!

You will also be using the **mastering biology** and therefore you are required to ***purchase*** the ***code***. The e-text is also available with the code. Course ID: **DrParBIO3SP14**

***Lab Manual*:** Before the semester begins please purchase the Fall 2013 *(not the older versions)* lab manual from the LAMC bookstore OR click on THIS link to download the labs.

Evaluation and Grading:

(1) Quizzes (3 x 60 = 180 points)

A short quiz will be administered on 4 different occasions during the semester. The quizzes are administered in the beginning of the class and if you are tardy, you will not be allowed to take the quiz. Each quiz will take approximately twenty minutes and will emphasize material covered during previous *labs and lectures*. The quizzes are intended to stress the importance of staying up with the material. At the end of the semester, the lowest quiz score will be dropped. **Quizzes cannot be made up.** You should arrange all personal, family, and vacation plans accordingly. Pop quizzes may also be given throughout the semester.

(2) Laboratory Exercise Sheets and Lab/class Participation (14 x 10 = 140 points)

Students are required to complete all questions, including tables, charts, and graphs, for all lab exercises. *Lab sheets* must be returned on the same day. Only reports on worksheets are accepted. Late reports are not accepted. The sheets for each of the 14 laboratory meetings will be worth 10 points each. **Do not underestimate the value of these points!** Every semester some students lose a whole grade because of absences, tardiness, failure to participate, or failure to hand-in lab sheets complete and on time. If you are tardy or leave early, you will not receive full points. A student, who **misses three class/laboratory sessions or is tardy three times/leaves early, excused or unexcused**, is subject to receiving a Failing Grade or may be dropped. The fieldtrip to the zoo is part of your lab assignment. The details on the fieldtrip will be given to you close to the date.

(3) Midterm Examinations (3 x 120 = 360 points)

There will be 3 objective midterm exams as scheduled in the course outline. The exams are administered in the beginning of the class and if you are tardy, you will not be allowed to take the exam. **No make-up midterm examinations will be given.** A student who has an excused absence from one midterm only will have the percentage earned on the next examination counted for that missed score. The excuse for the absence must be reported to the instructor within 24 hours and accompanied with proper documentations. Students should arrange all personal, family, and vacation plans accordingly. These occasions are not considered as excused absences.

(4) Case Study poster (1 x 30)

Written communication and critical thinking are essential components of science. Students will be asked to read and respond to a controversial issue in modern biological sciences. Students will be required to write a coherent *essay* in which he/she will argue the merits of their analysis of the issue. **Details on the topics and the format will be posted on my website about two weeks before the poster is due.** Late submissions are not accepted.

(5) Homework/Participation (40 points)

Assignments are given throughout the semester, announced or unannounced. Your participation and interaction in the class are also graded. *If you miss class twice or are tardy/leave early three times, you will not receive any points for Participation.*

(6) Final Laboratory Practical Examination (80 points)

The Final Laboratory Practical Examination will cover all material from all laboratory exercises throughout the semester and will include “hands-on” experimentation that will be accomplished by the lab groups. You can use your lab reports. *No make-up Exam will be given*.

(7) Final Objective Examination (170 points)

The Final Objective Examination will include material from throughout the course. *No make-up Final Exam will be given.* Students should arrange all personal, family, and vacation plans accordingly.

Evaluation	**Number**	x	**Points**	=	**Total**	**Percentage**
Quizzes	3		60		180	18%
Lab Exercise Sheets	14		10		140	14%
Case Study	1		30		30	3%
Homework/Participation					40	4%
Midterm Exams	3		120		360	36%
Final Practical Exam	1		80		80	8%
Final Objective Exam	1		170		170	17%
					1000	**100%**

TENTATIVE GRADING SCALE (final point total may be subject to change)

Point Total	**Percentage**	**Letter Grade**
900-1000	100 - 90%	A
800-899	89 - 80%	B
700-799	79 - 70%	C
600-699	69 - 60%	D
599- lower	59 - lower	F

Lecture Notes:

The lecture notes and study guides may be downloaded using my Etudes website. You will also find links to animations related to the topics that we will review in the class. For copy right purposes the images are removed from the lecture notes. These images are taken directly from your textbook. The website of the publisher is an excellent resource to find chapter reviews and quizzes: www.masteringbiology.com. Course ID: **DrParBIO3SP14**

Plan to study at least 6 hrs per week for this class (3 hours of class time x 2 = 6 hrs effective study time at home)! Tutoring availalve at the **Science Success Center** (SSC) in CMS 101.

Additional Materials:

Each student should **purchase at least 10 ScanTron** Answer Sheets (green, 100 Q) for the Quizzes, Midterms, and Final Exam.

Cheating:

Cheating and plagiarism in any form will result in an automatic F and dismissal from the course. For more information on the plagiarism please check the Etudes website**!**

Students with Disabilities:

Students with disabilities are encouraged to contact Disabled Student Programs & Services (DSPS) to find out what services and accommodations are available. In general, recording of the lectures are not allowed unless the student can provide a letter from the DSPS office indicating the need for recording the lectures.

Final words: I would like you to know that I am here for you to keep you motivated, and guide you through the course so that you can achieve your educational goals. I hope that you will learn to become critical and independent thinkers. Make sure that you apply the topics that you learn in the class in your daily lives. Be the future role models and mentors!

According to a 2012 report from the National Survey of Student Engagement, on average, full-time college students study 15 hours per week. Sounds reasonable, but how effective is that study time? In the same survey, two out of three students reported that they frequently reviewed their notes after class but only half said they frequently outlined major topics and ideas from course materials or discussed effective study strategies with faculty or students. The key isn't necessarily to put in more hours – although that wouldn't hurt either – but to make the most of your study hours.

Some tips:

1. **Get organized.** Staying organized is key. Make sure you have a notebook/binder for each class and organize your notes, handouts, graded tests, papers and quizzes. When you prepare to study, have all the materials – syllabus, pens, paper, pencils, calculator or whatever you'll need for that particular study session. Use a *planner* to keep track of long- and short-term projects. Set a *schedule* and *stick* to it.
2. **Pick your time and place.** Experts advise students to study in chunks of shorter time and to avoid marathon study sessions. If possible, it's best to use work hours – 8 a.m. to 6 p.m. – for classes and studying. Every campus has great places to study – but your room may not be one of them since there is likely both a bed and a TV to lure you away from your work. Look for spots with good *lighting* and *few distractions*. A study carrel at the *library* may be perfect for writing a paper or working equations, but there's nothing wrong with occasional getting cozy in a tucked-away corner of a coffee shop for some tasks, such as reviewing notes. Try studying at the *same time daily*, giving your most challenging classes top priority.
3. **Take good notes and review them correctly**. Class notes are a crucial part of studying in college. Taking good notes forces you to listen carefully and helps you remember the important points even before you study them. So when you're taking notes during a lecture, *listen carefully*. Record only the *main points* and concentrate on key words, leaving plenty of white space to write in more information as needed. Take time to *continue* working on your notes as soon as possible. Add details you remember and review what you've written. Make note of any *questions* you have. Keep your notes *neat* and in order.
4. **Attend class and participate.** In college as in life, 90 percent of success is *showing up*. Studying will be much more effective if you know what your professor and classmates are talking about. Participate in *discussions* and ask questions. Create study tools. Create *outlines*, *timelines*, *charts* and *flashcards* with your notes and reading materials. Simply working on these *mini-projects* can help you memorize the material, but using them to test yourself can reap rewards.
5. **Rethink reading.** Painstakingly reading every word may not be your best strategy. Learn to scan chapter *headings*, *introductions*, *summaries* and *keywords*. Read *actively*, searching for the main points. Take notes and write summaries.
6. **Create possible test questions.** Translate the text into your own words and think of your *own examples* so you'll be able to write effective essays or summaries.
7. **Turn off your phone.** When it comes to studying, multi-tasking is a myth. Since you're studying in shorter chunks of time (see No. 2) you can turn your phone off and put it away to avoid being distracted by a text or call. Reward yourself after a productive hour or so with a quick peek – but get back to work until you've *accomplished your mission*.

Lecture/Laboratory Schedule

Biology 3 – Spring 2014

Dr. Par Mohammadian

Date	Lecture (Weekly assignments and due dates are posted on the mastering biology website. These assignments are part of your homework and will be included in your grades. You will only be given points if you receive 70% or higher on the assignments.)	Lab (Weekly pre-lab quizzes are posted on Etudes. You are REQUIRED to take them before performing the actual experiments in the lab. The due dates are posted on Etudes. The grades of the pre-lab quizzes are part of your lab reports).
Week 1		
Tue 2/11	Course Intro; Study of Life Ch1	*Scientific Method – part 1*
Th 2/13	The Chemical Basis of LifeCh 2	*Scientific Method – part 1*
Week 2		
Tue 2/18	The Chemical Basis of LifeCh 2	*Metric System – part 2*
Th 2/20	The Molecules of Cells Ch3	*Metric System – part 2*
Week 3		
Tue 2/25	**Quiz #1 (Ch 1-2)** The Molecules of Cells Ch 3	*Mol., Water & pH*
Th 2/27	A Tour of the Cell Ch 4	*Mol., Water & pH*
Week 4		
Tue 3/4	A Tour of the Cell Ch 4	*Microscopy & Cell*
Th 3/6	The Working Cell Ch 5	*Microscopy & Cell*
Week 5		
Tue 3/11	**Examination #1 (Ch 1-4)**	*Macromolecules*
Th 3/13	The Working Cell Ch5	*Macromolecules*
Week 6		
Tue 3/18	How Cells Harvest Chem Energy Ch6	*Enzymes*
Th 3/20	How Cells Harvest Chem Energy Ch6	*Enzymes*

Week 7 Tue 3/25	Using Light to Make Sugars: Photosynthesis Ch7	*Respiration*
Th 3/27	**Quiz 2 (Ch 5-6);** Photosynthesis Ch7	*Respiration*
Week 8 Tue 4/1	Cellular Basis of Repr. Ch8	*Photosynthesis*
Th 4/3	Cellular Basis of Repr. Ch8	*Photosynthesis*
Week 9 Tue 4/8 Th 4/10	**Spring Break**	
Week 10 Tue 4/15	**Examination #2 (Ch 5-7)**	*Mitosis & Meiosis*
Th 4/17	Patterns of Inheritance Ch 9	*Mitosis & Meiosis*
Week 11 Tue 4/22	Molecular Biology of the Gene Ch10	*Genetics*
Th 4/24	**Quiz 3 (Ch 8-9)** Molecular Biology of the Gene Ch10	*Genetics*
Week 12 Tue 4/29	How populations evolve Ch13	*DNA & Gene Expression*
Th 5/1	Animal Structure and Function Ch20	*DNA & Gene Expression*
Week 13 Tue 5/6	Circulation Ch23	*Natural Selection* **Case Study poster due**
Th 5/8	**Examination #3 (Ch 8-10, 13)**	*Natural Selection* **Case Study poster due**
Week 14 Tue 5/13	***Sat 5/10 at 9:00 am Zoo field trip*** Circulation Ch23	*Cardio & Heart* *Posters to be sent to CMS101* *Zoo field trip form due*
Th 5/15	Digestion & Nutrition Ch21	*Cardio & Heart* *Posters to be sent to CMS101*
Week 15 Tue 5/20	Digestion & Nutrition Ch21 Reproduction & Development Ch27	***Final Lab Practical Examination***
Th 5/22	**Quiz 4 (20, 21, 23);** Reproduction & Development Ch27	***Final Lab Practical Examination***
Week 16 Tue 5/27	**Non-instructional Day**	

Th 5/29	Review *(Poster contest winners announced)*	*No lab –* *Replaced by the field trip*
Week 17 Tue 6/3	**FINAL EXAMINATION** (7:15 – 8:40 AM)	

Code of Honor and Integrity

Los Angeles Mission College
Department of Life Sciences

Students at Los Angeles Mission College, because they are members of an academic community dedicated to the achievement of excellence and the pursuit of honor, are expected to meet high standards of personal, ethical, and moral conduct. These standards require personal integrity and a commitment to honesty without compromise. Without the ability to trust in these principles, an academic community and a civil society cannot exist. Los Angeles Mission College students and faculty are as committed to the development of students with honesty and integrity as they are to the academic and professional success of its students.

The **Code of Honor and Integrity** is an undertaking of the students, first and foremost, both individually and collectively, that they will:

1. not give or receive dishonorable aid during exams, quizzes or assignments

2. do their share and take an active part in seeing to it that fellow students, as well as themselves, uphold the spirit and letter of the Code of Honor and Integrity.

Some examples of conduct that are regarded as being in violation of the Honor Code include:

- Copying from another's examination or quiz, or allowing another to copy from one's own papers

- Using any unpermitted source of information, human or other, during an exam, quiz or assignment that influences the grade; this includes the use of technological devices

- Any student-to-student collaboration that is unpermitted

- Plagiarism (plagiarism is defined as the use, without giving reasonable and appropriate credit to, or acknowledging the author or source, of another person's original work)

- Representing as one's own work as the work of another

- Giving or receiving aid on an academic assignment under circumstances in which a reasonable person should have known that such aid is not permitted

As a part of the effort to promote an environment of honesty and integrity during quizzes and examinations, the following guidelines will apply for any courses in the Department of Life Sciences:

1. Students will leave all books and all other non-essential items (e.g. paper, electronic devices) on the floor so that they are not useable nor block the sight line between professor and student. No electronic devices will be in reach.

2. Students will not communicate in any way that will dishonorably assist themselves or another student.

3. Students will leave the room during an exam only if permitted by the professor's policy. If permitted, only one student may leave the room at any time and be gone for only the average length of time needed for the stated purpose. Students will leave all purses, bags, books, phones, jackets, etc., in the classroom during the absence.

4. Students will promote the spirit and letter of the **Code of Honesty and Integrity** by dissuading fellow students from dishonest activity and, when such casual persuasion does not work, informing the professor of the possible dishonest activity, either anonymously, or otherwise.

5. Students will make every effort to avoid even the appearance of dishonesty or lack of integrity

Violation of this policy will not be tolerated and violators will be subject to severe penalties. The success of the **Code of Honor and Integrity** is based upon the collective desire of students, faculty and the community to live in an environment that embraces respect for that which is right – both in the college and in society as a whole.