



**SAINT LOUIS
UNIVERSITY
MADRID**

DIVISION OF SCIENCE AND ENGINEERING

Professor:	María-José Morell
Course name:	Exercise and Health
Course code:	BIOL-1460
Semester:	Summer 2017
Credit hours:	3
Timetable:	12:00 - 14:10 (MTWR)
Email:	morell@slu.edu
Office location:	Padre Arrupe Hall, first floor
Office hours:	M/W 11:00-12:00 and upon request
Prerequisites:	none

I Course Objectives

To provide a presentation of the basic concepts of biology, and understand and apply the scientific method to the study of life. The course is appropriate to students majoring in biology, the health professions, and other disciplines.

Biology Program Objectives:

- A. Know and understand the core concepts of biology:
 - evolution as the unifying principle of biological science;
 - the relationship between structure and function;
 - transfer of energy and matter within and among organisms and the environment;
 - transmission, flow and processing of information;
 - the interconnectedness of biological systems.
- B. Connect and integrate their knowledge and understanding across all scales of biological organization, from cells and molecules to organisms and ecosystems.
- C. Understand the process by which scientific knowledge is constructed, analyzed and interpreted.
- D. Graduates will use scientific reasoning and appropriate techniques to propose research questions, articulate hypotheses, design and conduct experiments, represent results, and interpret data to draw appropriate conclusions.
- E. Graduates will be self-directed learners who seek information independently and use it to grow their knowledge base.

- F. Graduates will be able to effectively communicate their understanding of biology and/or their research findings, to diverse audiences and in multiple formats.

Student Learning Outcomes

Program Objectives	Student Learning Outcomes	Assessment Method
A	<p>A.1. Understand basic energy metabolism (i.e. conversion of chemical energy in food into chemical energy that can drive cellular processes).</p> <p>A.2. Understand energy metabolism in relation to exercise, energy balance, and obesity.</p> <p>A.3. Be familiar with the responses and adaptations to aerobic exercise, and in particular, the beneficial effects of aerobic exercise toward health.</p> <p>A.4. Be familiar with the responses and adaptations to strength-training exercise and the beneficial effects of muscle hypertrophy.</p> <p>A.5. Be aware of negative health-related outcomes of a sedentary lifestyle.</p> <p>A. 6. Understand effects of exercise on quality of life and average length of life.</p>	<p>Weekly quizzes First and Final Exams</p> <ul style="list-style-type: none"> . Conceptual questions . Apply knowledge questions
B	<p>B.1. Apply the structure and function of lower levels to upper levels, to understand how they are interconnected.</p> <p>B.2. Understand how the different structural levels depend on an increased degree of complexity to integrate new functions.</p>	<p>Weekly quizzes First and Final Exams</p> <ul style="list-style-type: none"> . Conceptual questions . Apply knowledge questions . Class Discussions
C	<p>C.1. Understand the steps of the scientific method, and develop a critical thinking.</p> <p>C.2. Apply the scientific method to understand how it has been used to identify structures and to describe biological processes.</p>	<p>Weekly quizzes First and Final Exams</p> <ul style="list-style-type: none"> . Conceptual questions . Apply knowledge questions . Class Discussions
F	<p>F.1. Communicate clearly and effectively when describing processes and structures.</p>	<p>First and Final Exams</p> <ul style="list-style-type: none"> . Conceptual questions . Apply knowledge questions

II Course Contents

The course will explore exercise metabolism, how the body responds and adapts to exercise, and the health implications of physically active and sedentary lifestyles.

III Course outline

Week 1: Physical activity, fitness and health.
Week 2: Physiology of fitness
Week 3: Energy and nutrition
Week 4: Understanding and improving aerobic fitness
Week 5: Understanding and improving muscular fitness

IMPORTANT DATES:

May 22 - First day of classes
May 24 - Last Day to Drop a Class Without a Grade of W and /or Add a Class
June 12 - Last Day to Drop a Class and Receive a Grade of W
June 22 - Summer session I final day of classes / final exam

IV Textbook:

Fitness & Health-7th Edition. Brian J. Sharkey, Steven E. Gaskill Copyright 2013
ISBN13: 9780736099370

V Examinations:

There will be two exams:

- First exam:
- Second exam:

The first exam will examine the material covered up to this exam.

The second exam will examine the material covered *after* the first one.

However, there is also a different final exam that examines all of the course material. This exam is obligatory for students who fail or miss the first exam. It is voluntary for any students who, having done the first exam, would like to try and improve their grade (but a poor result may obviously reduce the grade).

VI Grading System:

The final grade is calculated as follows:

First exam: 40%

Second exam: 40%

Homework assignments: 20%

Grading System

A 93-100%,

A- 90-92.9%

B+ 87-89.9%

B 83-86.9%

B- 80-82.9%

C+ 77-79.9%

C 73-76.9%

C-	70-72.9%
D	60-69.9%
F	0-59.9%

Homework assignments are on Blackboard, and they should be completed by the first day of class of every week. Home-works are not accepted if completed late.

VII Academic Integrity

Academic integrity is honest, truthful and responsible conduct in all academic endeavors. The mission of Saint Louis University is "the pursuit of truth for the greater glory of God and for the service of humanity." Accordingly, all acts of falsehood demean and compromise the corporate endeavors of teaching, research, health care and community service via which SLU embodies its mission. The University strives to prepare students for lives of personal and professional integrity, and therefore regards all breaches of academic integrity as matters of serious concern.

The governing University-level Academic Integrity Policy can be accessed on the Provost's Office website at: http://www.slu.edu/Documents/provost/academic_affairs/University-wide%20Academic%20Integrity%20Policy%20FINAL%20%2006-26-15.pdf. Additionally, SLU-Madrid has posted its academic integrity policy online: <http://www.slu.edu/madrid/academics>. As a member of the University community, you are expected to know and abide by these policies, which detail definitions of violations, processes for reporting violations, sanctions and appeals. Please direct questions about any facet of academic integrity to your faculty, the chair of the department of your academic program or the Academic Dean of the Madrid Campus.

VIII Policies

- (1) Students are encouraged to participate in class discussions and to ask questions.
- (2) Announcements may be made during the semester.
- (3) Useful information for the course may be found on Blackboard
- (4) Syllabus, reading and homework problems are subject to change.
- (5) Students are responsible for all lecture material, handouts, homework and assigned reading.
- (6) It is mandatory to attend all classes unless a reasonable excuse is given.
- (7) Make up exams are not given. Students who legitimately miss an exam, due to a doctor's visit or family emergency must provide written documentation of the circumstances. A letter from the university counselor is accepted. Exams that are missed illegitimately result in a score of F. Grades for these students will be based on the remaining exams. Missing more than one exam results in an F grade.

Title IX Statement:

Saint Louis University and its faculty are committed to supporting our students and seeking an environment that is free of bias, discrimination, and harassment. If you have

encountered any form of sexual misconduct (e.g. sexual assault, sexual harassment, stalking, domestic or dating violence), we encourage you to report this to the University. If you speak with a faculty member about an incident of misconduct, that faculty member must notify SLU's Title IX deputy coordinator, Marta Maruri, whose office is located on the ground floor of Padre Rubio Hall, Avenida del Valle, 28 (mmaruri@slu.edu; 915-54-5858, ext. 213) and share the basic fact of your experience with her. The Title IX deputy coordinator will then be available to assist you in understanding all of your options and in connecting you with all possible resources on and off campus.

If you wish to speak with a confidential source, you may contact the counselors at the SLU-Madrid's Counseling Services on the third floor of San Ignacio Hall (counselingcenter-madrid@slu.edu; 915-54-5858, ext. 230) or Sinews Multipletherapy Institute, the off-campus provider of counseling services for SLU-Madrid (www.sinews.es; 917-00-1979). To view SLU-Madrid's sexual misconduct policy and for resources, please visit the following web address: <http://www.slu.edu/Documents/Madrid/campus-life/SLUMadridSexualMisconductPolicy.pdf>.

Accommodations:

In recognition that people learn in a variety of ways and that learning is influenced by multiple factors (e.g., prior experience, study skills, learning disability), resources to support student success are available on campus. Students who think they might benefit from these resources can find out more about:

- Course-level support (e.g., faculty member, departmental resources, etc.) by asking your course instructor.
- University-level support (e.g., tutoring/writing services, Disability Services) by visiting the Academic Dean's Office (San Ignacio Hall) or by going to <http://www.slu.edu/madrid/learning-resources>.

Students with a documented disability who wish to request academic accommodations must contact Disability Services to discuss accommodation requests and eligibility requirements. Once successfully registered, the student also must notify the course instructor that they wish to access accommodations in the course. Please contact Disability Services at disabilityservices-madrid@slu.edu or +915 54 58 58, ext. 230 for an appointment. Confidentiality will be observed in all inquiries. Once approved, information about the student's eligibility for academic accommodations will be shared with course instructors via email from Disability Services. For more information about academic accommodations, see "Student Resources" on the SLU-Madrid webpage.

Note: Students who do not have a documented disability but who think they may have one are encouraged to contact Disability Services.

Information regarding the collection of student work for assessment.

In order to maintain quality academic offerings and to conform to accreditation requirements, SLU-Madrid regularly assesses its teaching, services and programs for evidence of student learning. For this purpose, SLU-Madrid keeps representative examples of student work from all courses and programs on file, including assignments, papers, exams, portfolios and results from student surveys, focus groups and reflective exercises. Copies of your work for this course may be kept on file for institutional research, assessment and accreditation purposes. If you prefer SLU-Madrid not to retain your work for this purpose, you must communicate this decision in writing to your professor.