

Evolution (PCB 4674, Class # 19468)
Spring 2012, Mondays 1:00 – 3:45 PM. VH 131

Class Schedule

Date	Lecture	Course Part	Textbook Chapter
9-Jan	Organizational meeting	I	
	Video: What about God?		
16-Jan	<i>Holiday No Class (Labor Day)</i>	I	
23-Jan	A case for evolutionary thinking: Understanding HIV		1, 2
30-Jan	The evidence for evolution	I	3,5
	Darwinian natural selection		
	Mutations and genetic variation 1	II	
6-Feb	HOURLY EXAM 1		
13-Feb	Mutations and genetic variation 2		5,6
	Mendelian genetics in populations 1: Selection and mutation as mechanisms of evolution		
20-Feb	Mendelian genetics in populations 2: Migration, genetic drift, and nonrandom mating	II	7,10
	Studying adaptation: Evolutionary analysis of form and function	III	
27-Feb	HOURLY EXAM 2		
5-Mar	Mechanisms of speciation	III	16,4
	Reconstructing evolutionary trees		
	Video: Great transformations		
12-Mar	<i>Spring Break</i>		
19-Mar	Video: Why sex?	III	11
	Sexual selection	IV	
26-Mar	Kin selection and social behavior	IV	12,13
	Life history characters		
2-Apr	HOURLY EXAM 3		
9-Apr	The origins of life and Precambrian evolution	IV	17,18
	The Cambrian explosion and beyond		
16-Apr	Human evolution	IV	20
	Course evaluations		
23-Apr	FINAL EXAM	IV	20

This is a tentative class schedule. Therefore material for exams will be based only on lectures covered during the regular class hours prior to the exam day. Dates of exam are subject to change depending on how far the instructor goes with his lectures. All students are expected to be available to take an exam or fulfill any class assignment during the regular class days indicated in this syllabus.

Teaching Staff

Instructor: Javier Francisco-Ortega

Room: OE242, email: ortegaj@fiu.edu

Phone: (305) 348-2080 (FIU)

Phone: (305) 665-2844 x3423 (Fairchild Tropical Botanic Garden)

Office Hours: Friday 10:00 pm – 1:00 pm

Dr. Ortega is always available for students; however please contact him in advance if you want to meet outside his office hours. You can reach Dr. Ortega by email or phone. We **will not** answer questions about exam content on the day of the exam. Issues concerning the course will **ONLY BE DISCUSSED** between the instructor and the student; third parties (such as relatives, spouses, friends, class-mates) cannot be involved in any discussions concerning any particular issue that the student may have during this course. These issues include but are not limited to grades, class performance, etc.

Teaching Assistant: TBA

Text and Lecture Notes:

Evolutionary Analysis, 4th edition, by Scott Freeman & Jon C. Herron, Prentice Hall. This text includes a web site (www.prenhall.com/freeman). Lecture notes will be available in the "[Current Courses & Syllabi](#)" section of the website of Department of Biological Sciences (<http://www.fiu.edu/~biology>). The instructor will also show several videos on the main topics discussed during the lectures. These videos will mostly be shown in the second part of each class.

Course Requirements:

This course bridges the ecology (PCB 3043) and genetics (PCB 3513) courses taken previously by upper division students. Students who enroll to PCB 4674 **MUST HAVE PREVIOUSLY TAKEN AND SATISFACTORY PASSED** (C or higher grade) PCB 3043 and PCB 3513. These two courses are mandatory (see course catalogues) and are required for all students who want to enroll in PCB 4674. Permit numbers will not be issued to students who have not fulfilled these requirements.

Course Description:

The course is a survey of modern evolutionary theory, including experimental and empirical evidence for evolution from a variety of scientific disciplines. The course is divided into four parts: Part I will introduce the students to the evidence of evolutionary change and to natural selection as an agent of these changes; Part II will explore the other mechanisms that cause change through time: mutation, migration and genetic drift; Part III will explore adaptation in depth; Part IV deals with the consequences of the four evolutionary processes over the sweep of Earth's history.

Help Sessions:

Dr. Javier F. Ortega will be available to help the students with any question on the material of the course during his office hours. In addition, he will answer promptly any question you might have by email. We will not provide review sessions before the exams.

Schedule:

Class will begin at 1:00 pm. Please be on time. Important announcements, etc. will be made at the beginning of class, which you don't want to miss.

Class Conduct and e-Mail List

1. We expect all students to behave as reasonable adults just like in any university classroom in any other school. It is important to have respect towards the instructor and fellow classmates. Inconsiderate, disrespectful, dishonest, or disruptive behavior, as the instructor or your fellow classmates perceive it, or as is described in the Student Handbook, is unacceptable for adults in this course. The instructor reserves the right to ask you to leave or have you removed if such behavior is present. Such behavior may bring about official disciplinary procedures as outlined in the Student Handbook.

2. Please turn off your cell phones and beepers. Eating, and CHATTING are not allowed during class sections. Students are not allowed to bring pets, family members, friends, etc. during class sections. We expect that students who attend the lectures will take notes. During lectures, students are not allowed to read notes/newspapers/books/magazines or prepare home-work for other courses, such behavior is disruptive toward the instructor and the rest of the students. Students are welcome to interrupt the instructor any time that an idea of concept is not clear. Students who are not officially registered for this course are not allowed to attend the class lectures (see section 7 of this syllabus for students with an incomplete grade).
3. Students are required to arrive on time to class. We will NOT TAKE class attendance, and coming to class IS NOT A REQUIREMENT for this course. Student performance will be evaluated ONLY by the regular and final exams (see below details on exam policy).
4. Students are required to send a registration email with their email address to Dr. Ortega before the first exam. They must use their own email accounts. Dr. Ortega will reply all the registration emails within a 24 hour period after the registration email has been sent, students who do not receive an email back from Dr. Ortega MUST contact him as soon as possible. The subject of the registration email must say "EVOLUTION STUDENT: STUDENT LAST NAME". The registration email must be signed with the full name of the student and must include the student's panther ID number. We expect for students to read their emails often (at least once per day) to check for any developing of this course.
5. We expect all students to follow the directions outlined in this syllabus, announced in class, and distributed via email or computer mailing list, plus others. We are not responsible for issues resulting from lack of knowledge due to students not checking these resources. Also, not having access to these resources is not an excuse--Email not working, internet was down, biology web-site is not working, library web-site is not working, I wasn't in class when an announcement was made, etc. ALL the important announcements of this course will be made at the beginning of class (first five minutes). There is a chance that many class announcements (including material for the exam) will NOT BE posted on the web-page of this course and/or will not be sent by email. This syllabus and the class schedule are subject to changes. Announcements made in class will have priority, therefore although class attendance will not have any direct effect on exam grades it will help the student to be aware of any class development not announced by email. Please be sure you do not come late because you don't want to miss any important announcements. If we have extra time we will teach two lectures on "Development and evolution" and "Molecular evolution".
6. Students who have scholarships, or work full/part time, or live far away, or are applying for jobs, or are in the army, or have a busy family schedule, or are taking many courses, or are in their last semester, or need to have an outstanding grade because future career plans will be evaluated based on their class performance ONLY. All these extra-course activities will not have any influence concerning their final grade. Therefore, the instructor expects that the students will not bring these extra-course activities when they want to discuss with him class performance and/or expectations. An incomplete grade will be delivered under VERY EXCEPTIONAL documented circumstances such as MAJOR sudden and unexpected serious health problem of the student or his/her family, Dr. Ortega will not accept any other excuse to provide an incomplete grade.
7. Students with an incomplete grade from a previous section of Evolution MUST contact Dr. Ortega during the first week of the semester so that they she/he may be included in the list of students who are allowed to join the course activities. Dr. Ortega will check with the previous instructor of the student before allowing him/her to join the course. These students can come to the lectures. These students WILL NEED TO CONTACT Dr Ortega the week of the final exam so that their final grade can be implemented.
8. Cheating policy: I will follow strictly the "Student Handbook" regarding cheating. Procedures for both formal and informal procedures can be found under the section "Academic Misconduct" in the "Conduct & Policies" chapter. Anyone caught cheating will be asked to leave the class, will be given an "F" for the whole course and a petition will be sent to Academic Affairs. I will go strictly by the University's policy on cheating.

Grades

Grades will be based on the best 3 scores from the three hour exams (100 points each), plus the final (100 points). In other words, your lowest score of the 3 hour exams and the final will be dropped. This policy is implemented in case a student has a serious professional/personal conflict or emergency (i.e., job interview, important family event, interview to join another academic program, family emergency, etc.) the day of one of the four exams. Most of the questions of the

exams will be multiple-choice; however, they will also have several short answer/essay questions. The final exam will be semi-comprehensive: I will focus on material in the latter part of the semester (80%), but will feel free to ask you questions which require concepts and information from throughout the rest of the semester (20%).

Final grades will be as follows:

Grade	Point total
A	270 – 300 points
B+	258 – 269 points
B	240 – 257 points
C+	228 – 239 points
C	210 – 227 points
D	180 – 209 points
F	< 180 points

95% of the exams will be based exclusively on the lecture notes posted in the web page of Department of Biological Sciences (FIU), however 5% of the questions may come from any topic not covered in the my lectures but found in particular sections of the text-book or in assigned reading material from recent research papers in evolutionary biology. The instructor will indicate in advance which sections of the text-book or reading material will cover this 5% of the exam.

As a general policy I only write letters of recommendation for students who receive an A in this course.

The Day of the Exam

- Please bring two sharpened #2 pencils with erasers to all exams. Students must bring a valid picture ID for their identification. Valid picture IDs are: driving license, FIU ID card, green-card, voter-registration card, or passport. All other materials (including wallets, bags (any size), cell-phones, bottles of waters/soda, etc.) will have to be placed at the front or back of the class, so it is best not to carry anything to the room on exam day.

- If you expect a phone call during the exam because of any kind of emergency, it is your responsibility to arrange for somebody else to answer this phone-call, as you will not be allowed to speak on the phone during the exam.
- Each student will be assigned to a particular seat by the instructor. You must sign your exam. It will be turned in to the instructor or assistant when you are finished. No one can leave unless they have returned the exam. You are not allowed to write anything on the exam except your name, FIU student number and a small circle to indicate the answer that you have selected for each question.
- Each multiple-choice question will have four choices, there is only one possible answer per question. When you are finished, you must return **all** materials given to you during the test whether filled out or not.
- Talking is not allowed. Cheating will be dealt with seriously and severely.
- Grades will be posted on the board located outside Dr. Ortega's office OE242. Students can check their exams, but exams will not be given back to the students. Students **must** check their grades by themselves and not delegate to somebody else to check for them. All students **must** check their grades as soon as they are posted. Students who are not officially registered in this course will not be allowed to take the exam (see section 7 of this syllabus for students with an incomplete grade). Students will be allowed to check their exams during a two week period after the grades of each exam are posted. Students will have a second opportunity to check their exams after the final grade of the course is officially posted.
- The instructor understands that all students will check their final grades (by themselves and not by somebody else) the week after final exam and that they will immediately contact the instructor if they want to review their class performance and final grade. Students will have only one semester (Summer 2012) to claim for a change of grade.
- The day of the exam we strongly recommend students come to FIU on Monday morning long before the time of the exam. Students must plan well in advance their fall schedule; it is their responsibility to be sure that the day of the exam they will not face any conflict with **any** other extra-curricular activity. The instructor understands that when the student registers for this class he/she does not have any major conflict that will not allow him/her to be in FIU at least one hour before the beginning of the exam. The instructor also understands that all the students who enroll for this course have read this syllabus and understand and accept the course policy.

Arriving Late

- **Please read this carefully as we will follow a very strict policy on this issue.**
- If you arrive to an exam more than 30 minutes late, or after the first person finishes the test (whichever comes first) you will not be allowed to take the exam. We will not make any exceptions to this rule.

Make-Ups

- There are no make-up exams for this course; if a student does not attend one exam, then this exam will be dropped from the final grade (see grade section above). However, in the **very remote** case that a student needs to have a make-up exam then this exam will be oral.