

## COURSE SYLLABUS (SPRING 2023)

### I. Course Number, and Title

BIOL 3427 – Section 23964 – [BIOL 5301] - Desert Ecology (4 credits)  
Lecture Meetings: M,W: 9:00 am – 10:20 am (Education Building – 309)  
Lab meeting: M; 1:30 pm – 2:50 pm (Biology Building – B-206)

### II. Instructor Information

**Dr. Vicente Mata-Silva** Office: Biology Building 406  
E-mail: [vmata@utep.edu](mailto:vmata@utep.edu)  
Phone: (915) 747-5354  
Office Hours: M: 10:30 – 12:00, W: 10:30 – 12:00; or by appointment  
Please, be professional every time you e-mail me.  
A professional email includes a greeting.  
<https://www.researchgate.net/profile/Vicente-Mata-Silva>

III. After completion of this course, the student will be able to explain the physical and biological characteristics of desert ecosystems, including ecological, systematic and evolutionary aspects, and behavioral and physiological adaptations of desert organisms. Emphasis will be placed on the Chihuahuan Desert of North America.

### IV. Evaluation

There will be four and three regular exams during the semester for the lecture and the lab, respectively. Lecture online exams (four) will consist of multiple choice, true false, matching, fill-in-blanks, or short answer questions. Make-up exams will be given in lectures if a good reason for absence is given beforehand, and must be taken before within two days of the original (unless prior arrangements are made). Tentative grades for the four lecture exams are as follows: The lecture (exams, quizzes, written paper, presentation, a weekend field trip) will count 60% (100 % for grad students) and the lab section will count 40% of the total grade. Regarding the lab section (total 40%), there will be a breakdown of lab exams (30%), and lab assignments (10%), in which will constitute the lab portion of the grade for the course. Do not miss lab exams because make-ups will normally not be given. The grading scale will be 90-100% (A); 80-89% (B); 70-79% (C); 60-69% (D); below 60% (F).

### V. Classroom Rules

**Although not required, I highly encourage the use of masks.**

The pandemic is not over yet, and you want to be healthy to successfully pass this course. **I expect you to behave in an adult manner and give me your full attention**, but I do encourage questions and comments regarding course material.

**Cell phones and any other type of electronic devices will remain off during class.**

Laptops will be allowed under special circumstances. Disruptive behavior may lead to expulsion from the class or course. **Be aware that I will not be happy to see students texting while I am lecturing.** Except for water, **food and drinks are not allowed in the classroom.** **And food and drinks are not allowed in the lab at all.**

VI. Attendance Policy

Regular attendance increases your opportunity to successfully master this course. It is important that you come to class and take notes, especially since exam questions will come from your lecture notes, Power point presentations, videos, and lab handouts. I may show images with no text on them. **If you miss more than two sessions without reasonable justification, you will miss the chance for extra credit (if available). If you miss more than three sessions without reasonable justification, I will ask you to drop the course.**

**Material for this course (power point presentations and videos) will be available on Blackboard for you to review.**

In order to pass this course successfully, it is important that you come to class, review all the provided material, in time, so you are fully prepared for the exams. It is very important that you **check Blackboard (Announcements section) and UTEP email every day.**

VII. Instructional Methodologies

Class time will consist of Power point presentations and videos, supplementary materials, and lab sessions. Presentations and videos will be uploaded usually on Sundays. You will also receive reminders from me and the teaching assistant when an exam date or quiz is approaching. Study guides will be given out prior to all lecture exams and lab handouts are considered study guides for that material. Much of the plant lab will consist of a trip to the Chihuahuan Desert Gardens near the Centennial Museum. You will be required to produce a written paper and short power point presentations on a Chihuahuan Desert species. An additional presentation will be required for graduate students. Be aware that any information provided in the power point presentations, videos, handouts, study guides, or anything that I write on chalk board can appear on the exams. Lecture Exams will be taken on Blackboard.

VIII. Makeup Policy

No make-up exams will be given for reasons other than illness (doctor's note required), or when a student is on official University business (documentation is required in advance). If a student has an emergency situation the date of the exam, it is the student's responsibility to let me know immediately the same day or the next,

and provide documentation. Lab make-up exams will be taken on Friday at 7:00 am (or as agreed with the TA).

### **IX. Tentative Lecture Calendar (Spring 2023)**

Week of:

- Jan. 16: Syllabus – Desert Environment
- Jan. 23: Desert Environment – Energy flow
- Jan. 30: Nutrient Cycles – Soil Properties
- Feb. 6: **Exam 1** / Community Structure
- Feb. 13: Plant Life History / Desert Evolution
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- Feb. 20: **Exam 2** / The Great Basin Desert
- Feb. 27: The Mojave Desert / The Sonoran Desert
- Mar. 6: The Sonoran Desert / The Chihuahuan Desert
- Mar. 13: **Spring Break**
- Mar. 20: The Chihuahuan Desert / **Exam 3**
- Mar. 27: Sky Islands
- Apr. 3: Animal Adaptations
- Apr. 10: Research in the Desert
- Apr. 17: Research in the Desert/Upload Species paper
- Apr 21-23: Field trip to Indio Mountains Research Station**
- Apr. 24: Humans in the Desert
- May 1: Humans in the Desert
- May 10: **Final Exam**

### **X. Tentative Lab Calendar (Spring 2023)**

**TA: Arturo Rocha**

E-mail: [arocha3@miners.utep.edu](mailto:arocha3@miners.utep.edu)

Office Hours: B406: T – TR 10:00 am – 12:30 pm

Week of:

- Jan. 23: Syllabus / Ecology as a science
- Jan. 30: Sampling Techniques / Equipment
- Feb. 6: Desert Producers (Chihuahuan Desert Plants)
- Feb. 13: **Lab Exam 1**
- Feb. 20: Desert Consumers (Chihuahuan Desert Invertebrates)
- Feb. 27: Desert Consumers (Chihuahuan Desert Amphibians)
- Mar. 6: Desert Consumers (Chihuahuan Desert Reptiles – Lizards)
- Mar. 13: **Spring Break**
- Mar. 20: Review for 2<sup>nd</sup> Exam
- Mar. 27: **Lab Exam 2**
- Apr. 3: Desert Consumers (Chihuahuan Desert Reptiles – Snakes, and Turtles)
- Apr. 10: Desert Consumers (Chihuahuan Desert Reptiles - Birds)
- Apr. 17: Desert Consumers (Chihuahuan Desert Mammals)
- Apr 23-25: Field trip to Indio Mountains Research Station**
- Apr. 24: Review for final exam
- May 1: Final Lab Exam**

The TA and I usually are out of town on weekends because of our field research activities, but we will respond as soon as possible the following week.

I am the Co-Director of UTEP's Indio Mountains Research Station (IMRS).

