

**The University of Texas at El Paso**  
**College of Science**  
**Course Syllabus: Forensic Biology, FORS 3371, (CRN # 26146),**  
**Credit Hours: 3, Spring 2019**

**Instructor: Dr. Roshanak Jafari**

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**Classroom:** EDUC 202

**Class Hours:** MWF 8:30 am - 9:20 AM; **Office Hours:** MW 2:45 – 3:45 PM

**Required Materials (Textbook):** Forensic Biology by Richard Li, second Edition, 9781439889701, CRC Press 2015

**Important dates:**

<b>Jan 22:</b>	<b>Classes begin</b>
<b>Mar. 18 - 22</b>	<b>Spring Break (No Classes)</b>
<b>Mar. 29</b>	<b>Cesar Chavez Day Observance/ Spring Study Day (No Classes)</b>
<b>Apr. 5</b>	<b>Course drop deadline (Last day to drop with an automatic W)</b>
<b>May 9</b>	<b>Last day of classes</b>
<b>May 10</b>	<b>Dead Day (No Classes)</b>
<b>May 13</b>	<b>Final exam: 10:00 am – 12:45 pm</b>

**Course Objectives:**

The goal of this course is to provide the student with a foundation in the theories, techniques, and vocabulary unique to the fields of forensic serology and forensic DNA. The course will cover the handling of samples from evidence collection, documentation, preservation, and examination. This includes the different types of bodily fluids collected and the corresponding testing for that fluid. Extraction techniques as well as quantification techniques and associated instrumentation will be discussed.

**Attendance Policy:**

Attendance in this course is critical to your success. Not only attending lecture aid in your understanding of course material, attendance is mandatory.

**Evaluation**

Three exams will be given for this course. Two exams will be given during the semester. The final exam will be given during the finals week of this semester on Monday, May 13.

## Grading

Your grade in this course is based on a combination of exams, and participation in class. Grades are based on a straight percentage scale; there is no curve and no +/- grades are awarded. So, an A=100-90%, a B=89-80%, a C=79-70%, a D=69-60%, and F=<60%.

Grading Policy:

Exam 1: 25% of final grade

Exam 2: 25% of final grade

Final Exam: 25% of final grade

Class Participation (Classroom polling), Activities (Practical), and Blackboard Assignments and homework: 25% of final grade

Total: 100%

**Course Requirements:** Students will be required to complete each reading, participate in classroom Polling and discussions, complete assignments and on-line discussions on Blackboard, and be ready to discuss current events in Forensic Science as they occur.

## Classroom Polling

I'm excited to let you know that I will be using a cloud-based student response software by iClicker in class this semester. This will help me understand what you know, give everyone a chance to participate in class, and allow you to review the material after class. I will be using this software to keep track of attendance; please refer to the attendance policy of this syllabus. In-class participation through iClicker will account for 10 % of your final grade.

You will need to create an iClicker Reef Student account to participate in class using your laptop, smart phone, or tablet connected to the university's Wi-Fi (UTEPSecure) or to your mobile data plan.

## Creating Your iClicker REEF Student Account through Blackboard

Sign in to Blackboard and click my course [26146.201920: Spring 2019 - Forensic Biology \(FORS-3371-001\)](#) . Search for the iClicker REEF icon, this should be on the Home Page. Click this link to launch a special instance of REEF, then log in or create a new REEF account if you don't already have one. You should **use your university email address** ([username@miners.utep.edu](mailto:username@miners.utep.edu)) when creating your account. If you need to change your email address or password, edit your REEF account profile. Signing into REEF through the link in Blackboard will automatically add you to my course.

**Note:** You will not need to purchase a subscription to use iClicker REEF this semester because it is provided to you for free.

## Creating Your iClicker Reef Student Account (if not using Blackboard)

Students who do not have an existing REEF account, need to go to [iclicker.com/students](http://iclicker.com/students) or download the iClicker Reef Student app from the App Store or Google Play to sign up for a Reef account. iPad users need to change the search to iPhone App. You should **use your university email address** (@miners.utep.edu) when creating your account. If you need to change your email address, or password, edit your account profile. Do ***not*** create and use more than one Reef account as you will only receive credit from a single account.

**Note:** You will not need to purchase a subscription to use iClicker REEF this semester because it is provided to you for free.

### **Cheating**

I consider submitting votes for a fellow student to be cheating and a violation of the University Honor Code. If you are caught voting for another student or have votes in a class that you did not attend, you will forfeit all Reef points and may face additional disciplinary action.

### **MAKE- UP EXAM POLICY: There is no make-up test!**

**Academic Integrity Policy:** Information on UTEP's Policies regarding academic integrity can be found at <http://academics.utep.edu/Default.aspx?tabid=23785>

**Civility Statement:** Cell phones are either to be turned off or turned to vibrate during lecture; talking during lecture is not permitted. Please be respectful to all students' right to learn without disruption.

**Disability Statement:** If a student has or suspect he/she has a disability and needs an accommodation, he/she should contact the Center for Accommodations and Support Services (CASS) at 747-5184 or at [cass@utep.edu](mailto:cass@utep.edu) or go to room 106 in the Union East Building. The student is responsible for presenting to the instructor any DDS accommodation letters and instructions.

**Military:** If one serves in the military and has the potential of being called up, that fact should be made known to the instructor.

**The following schedule is tentative, and the dates of lectures and exams may be changed.**

Wed	23-Jan	Forensic biology Introduction	Ch. 3
Fri	25-Jan	Sources and Analysis of Biological Evidence	Ch. 4
Mon	28-Jan	DNA: Structure and Properties	Ch. 5
Wed	30-Jan	DNA Extraction: Principles and Methods	Ch. 5
Fri	1-Feb	DNA Extraction: Principles and Methods	Ch. 5
Mon	4-Feb	DNA Quantitation	Ch. 6
Wed	6-Feb	DNA Amplification by PCR	Ch. 7
Fri	8-Feb	DNA Amplification by PCR	Ch. 7
Mon	11-Feb	DNA Electrophoresis	Ch. 8
Wed	13-Feb	DNA Electrophoresis	Ch. 8
Fri	15-Feb	DNA Detection Methods	Ch. 9
Mon	18-Feb	Serology (Immunology) Concepts	Ch.10
Wed	20-Feb	Serology (Immunology) Concepts	Ch.10
Fri	22-Feb	Serology Techniques	Ch. 11

Mon	25-Feb	Serology techniques	Ch. 11
Wed	27-Feb	Serology techniques	Ch. 11
Fri	1-Mar	<b>Test #1</b>	
Mon	4-Mar	Blood: Biological Properties/ Assays	Ch. 12
Wed	6-Mar	Blood: Biological Properties/ Assays	Ch. 12
Fri	8-Mar	Blood: Biological Properties/ Assays	Ch. 12
Mon	11-Mar	Identification of Semen/Biological Characteristics	Ch. 14
Wed	13-Mar	Identification of Semen/Assays	Ch. 14
Fri	15-Mar	Identification of Saliva/Assays	Ch. 15
Mon	18-Mar	<b>Spring Break- NO CLASS</b>	
Wed	20-Mar	<b>Spring Break- NO CLASS</b>	
Fri	22-Mar	<b>Spring Break- NO CLASS</b>	
Mon	25-Mar	Identification of Vaginal Secretions/Assays	Ch. 16
Wed	27-Mar	Identification of Vaginal Secretions/Assays	Ch. 16
Fri	29-Mar	<b>Cesar Chavez Day- NO CLASS</b>	
Mon	1-Apr	Urine: Biological Properties/Assays	Ch. 17
Wed	3-Apr	Feces: Biological Properties/Assays	Ch. 17
Fri	5-Apr	Blood Group Typing	Ch. 18
Mon	8-Apr	Blood Group Typing	Ch. 18
Wed	10-Apr	Blood Group Typing	Ch. 18
Fri	12-Apr	<b>Test #2</b>	
Mon	15-Apr	STRs/ SNPs/ Y-STR	Ch. 19, 20, 21, 22
Wed	17-Apr	STRs/ SNPs/ Y-STR	Ch. 19, 20, 21, 22
Fri	19-Apr	STRs/ SNPs/ Y-STR	Ch. 19, 20, 21, 22
Mon	22-Apr	Parentage	Ch. 19, 20, 21, 22
Wed	24-Apr	Anomalies	Ch. 19, 20, 21, 22
Fri	26-Apr	Mitochondrial DNA	Ch. 23
Mon	29-Apr	Forensic DNA Databases	Ch. 24
Wed	1-May	Hardy-Weinberg Principle	Ch. 25
Fri	3-May	Statistics	Ch. 25
Mon	6-May	Quality Assurance/ Quality Control	Ch. 26
Wed	8-May	Quality Assurance/ Quality Control	Ch. 26
Fri	10-May	<b>Dead Day- NO CLASS</b>	
Mon	13-May	<b>Final- 10:00 am-12:45 pm</b>	

### Rules for tests:

1. Cell phones must be turn off!
2. No listening device may be worn