

# THE UNIVERSITY OF TEXAS RIO GRANDE VALLEY

College of Health Affairs

Department of Health & Biomedical Sciences

## BMED 1102 Biomedical Science Laboratory – Fall 2015

---

<b>Instructor</b>	Dr. Seratna Guadarrama (Substitute: Dr. Nair)
-------------------	---

<b>Office/Phone</b>	TBA
---------------------	-----

<b>Email</b>	TBA
--------------	-----

<b>Class Schedule</b>	
-----------------------	--

	T 1:15 am – 3:15pm, LHSB. 1.208 (BMED 1102-06)
--	--

	Th 9.00 am – 11.00 am, LHSB.1.208 (BMED 1102-09)
--	--

	Th 11:15 am – 1:15pm, LHSB. 1.208 (BMED 1102-10)
--	--

<b>Office Hours</b>	TBA
---------------------	-----

<b>Instructional</b>	Ramiro Tovar	<b>Contact:</b> TBA
----------------------	--------------	---------------------

<b>facilitator</b>	Cecilia Orta	<b>Contact:</b> TBA
--------------------	--------------	---------------------

---

**Text &Resources:** *No textbook needed. Handouts, materials and links will be shared as needed.*

**Course Description and Prerequisites:** Welcome to the first step of your journey into the world of the biomedical sciences. As you reach each of your learning goals, you will develop the knowledge and skills necessary to contribute to the health and wellbeing of many members of your community. You will also learn what the professionals in the field know about the inner workings of the human body and medicine. It will be a fascinating trip through one of the fastest growing areas of scientific study. The laboratory experience is your opportunity to develop vital laboratory skills as well as an understanding of scientific method.

### Learning Objectives/Outcomes for the Course:

As you do the activities in this course, you will work toward demonstrating competence in each of these programmatic objectives:

**5A.1 - Scientific Method - Level 1:** Describe the basic principles of the scientific method, including common research approaches, methods, and designs including standard laboratory rules for safety and proper behavior and attire in the laboratory.

**8A.1 - Laboratory Equipment - Level 1:** Set up, operate, clean, and store standard biological science equipment such as a centrifuge, spectrophotometer, pH meter, balance, bunsen burner, pipettes, pipettors, micropettor, and the microplate reader; and understand the principles of operations.

**8D.1 - Laboratory Techniques - Level 1:** Understand the principles of common laboratory techniques and be able to apply them in a simulated context.

**9A.1 - Sensitivity & Helpfulness - Level 1:** Demonstrate a desire to help others and sensitivity to others' needs and feelings.

**9B.1 - Socio-cultural Factors - Level 1:** Demonstrate knowledge of socio-cultural factors that affect interaction and behaviors, multiple dimensions of diversity, and strategies for interacting effectively with people from diverse backgrounds.

**9C.1 - Collaboration - Level 1:** Demonstrate ability to work collaboratively with others to achieve shared goals.

**10A.1 - Ethics & Integrity - Level 2:** Behave in an honest and ethical manner; cultivate personal and academic integrity; adhere to ethical principles; and follow rules and procedures.

**10B.1 - Personal Responsibility - Level 2:** Consistently fulfill obligations in a timely and satisfactory manner; take responsibility for personal actions and performance.

**10C.1 - Continuous Improvement - Level 2:** Set goals for continuous improvement and for learning new concepts and skills; solicit and respond appropriately to feedback.

**10D.1 - Resource Utilization - Level 2:** Appropriately utilize campus, community, and other resources to help one succeed in the university setting, including progressive awareness of how and when to seek academic assistance or other professional support.

**Grading Policies:** You will complete a variety of lab assignments throughout the course, and you will be evaluated by your instructor using a rubric that assesses whether you have met the objectives above. You can earn up to 50 points for each assignment. You must earn at least a 70% (35 points) or you must complete the lab assignment again.

### **Calendar of Activities**

The UTRGV academic calendar can be found at <http://my.utrgv.edu> at the bottom of the screen, prior to login. Important dates for Fall 2015 include:

<b>August 31</b>	Classes Begin
<b>September 7</b>	Labor Day Holiday; university closed
<b>September 16</b>	<b><i>Last day to drop a class before it appears on the transcript</i></b> and counts toward the “6-drop” limit. Last day to receive a 100% refund for dropped classes (other policies apply when a student is withdrawing from all classes).
<b>November 18</b>	<b><i>Drop/Withdrawal Deadline; last day for students to drop the course and receive a DR grade.</i></b> After this date, students will be assigned a letter grade for the course that will count on the GPA.
<b>November 26-27</b>	Thanksgiving Holiday; university closed
<b>December 10</b>	Study Day; no classes
<b>December 11-17</b>	Final Exams

***Lab Schedule: Subject to Change***

Date	Laboratory Experience	Attendance	Report	Points
Week 1	Laboratory Safety	15	Quiz -35*	50
Week 2	Pipetting and Washing Glassware	15	35	50
Week 3	Basic Lab Calculations	15	35	50
Week 4	pH Buffers	15	35	50
Week 5	Making Solutions	15	35	50
Week 6	Serial Dilution, Spectrophotometry	15	35	50
Week 7	Enzyme Kinetics	15	35	50
Week 8	Aseptic Technique ( starting bacterial cultures including making media-plates/liquid; autoclaving; appropriate antibiotic selection)	15	35	50
Week 9	Spectrophotometric determination of bacterial growth , dilution series and growth curves	15	35	50
Week 10	Gram staining; microscopy and prestained slides	15	35	50
Week 11	Mitosis/Meiosis Simulation and prestained slides	15	35	50
Week 12	Growing Root Tip Isolations and microscopy	15	35	50
Week 13	Isolation of Nucleic Acids	15	35	50
Week 14	Cheek Prep of Chromosome Spreads and microscopy; prestained chromosome spreads	15	35	50
Week 15	Make up lab opportunity			
	Total			700

**\* No lab report there will be quiz the following week\***

#### **Absence and Makeup Policy:**

Laboratory attendance and assignments are mandatory and if you miss lab, you forfeit the points for that lab. If an excused absence is unavoidable, at the professor's discretion, students may complete a make-up lab at another time.

#### **UTRGV Policy Statements:**

##### STUDENTS WITH DISABILITIES:

If you have a documented disability (physical, psychological, learning, or other disability which affects your academic performance) and would like to receive academic accommodations, please inform your instructor and contact Student Accessibility Services to schedule an appointment to initiate services. It is recommended that you schedule an appointment with Student Accessibility Services before classes start. However, accommodations can be provided at any time. **Brownsville Campus:** Student Accessibility Services is located in Cortez Hall Room 129 and can be contacted by phone at (956) 882-7374 (Voice) or via email at [accessibility@utrgv.edu](mailto:accessibility@utrgv.edu). **Edinburg Campus:** Student Accessibility Services

is located in 108 University Center and can be contacted by phone at (956) 665-7005 (Voice), (956) 665-3840 (Fax), or via email at [accessibility@utrgv.edu](mailto:accessibility@utrgv.edu).

#### MANDATORY COURSE EVALUATION PERIOD:

Students are required to complete an ONLINE evaluation of this course, accessed through your UTRGV account (<http://my.utrgv.edu>); you will be contacted through email with further instructions. Online evaluations will be available Nov. 18 – Dec. 9, 2015. Students who complete their evaluations will have priority access to their grades.

#### ATTENDANCE:

Students are expected to attend all scheduled classes and may be dropped from the course for excessive absences. UTRGV's attendance policy excuses students from attending class if they are participating in officially sponsored university activities, such as athletics; for observance of religious holy days; or for military service. Students should contact the instructor in advance of the excused absence and arrange to make up missed work or examinations.

#### SCHOLASTIC INTEGRITY:

As members of a community dedicated to Honesty, Integrity and Respect, students are reminded that those who engage in scholastic dishonesty are subject to disciplinary penalties, including the possibility of failure in the course and expulsion from the University. Scholastic dishonesty includes but is not limited to: cheating, plagiarism, and collusion; submission for credit of any work or materials that are attributable in whole or in part to another person; taking an examination for another person; any act designed to give unfair advantage to a student; or the attempt to commit such acts. Since scholastic dishonesty harms the individual, all students and the integrity of the University, policies on scholastic dishonesty will be strictly enforced (Board of Regents Rules and Regulations and UTRGV Academic Integrity Guidelines). All scholastic dishonesty incidents will be reported to the Dean of Students.

#### SEXUAL HARASSMENT, DISCRIMINATION, and VIOLENCE:

In accordance with UT System regulations, your instructor is a "responsible employee" for reporting purposes under Title IX regulations and so must report any instance, occurring during a student's time in college, of sexual assault, stalking, dating violence, domestic violence, or sexual harassment about which she/he becomes aware during this course through writing, discussion, or personal disclosure. More information can be found at [www.utrgv.edu/equity](http://www.utrgv.edu/equity), including confidential resources available on campus. The faculty and staff of UTRGV actively strive to provide a learning, working, and living environment that promotes personal integrity, civility, and mutual respect in an environment free from sexual misconduct and discrimination.

#### COURSE DROPS:

According to UTRGV policy, students may drop any class without penalty earning a grade of DR until the official drop date. Following that date, students must be assigned a letter grade and can no longer drop the class. Students considering dropping the class should be aware of the "3-peat rule" and the "6-drop" rule so they can recognize how dropped classes may affect their academic success. The 6-drop rule refers to Texas law that dictates that undergraduate students may not drop more than six courses during their undergraduate career. Courses dropped at other Texas public higher education institutions will count toward the six-course drop limit. The 3-peat rule refers to additional fees charged to students who take the same class for the third time.

## **ACKNOWLEDGEMENT OF RECEIPT OF SYLLABUS**

By signing below, I hereby affirm that I have received a copy of the syllabus for **BMED 1102 Biomedical Sciences Laboratory** and have been informed by the **Instructor** that it is my responsibility to **carefully** read and understand this document.

---

Student ID Number

---

Printed Name

---

Signature

---

Date