CSI: Hunter- Forensic Biology (BIO) 150 is an introductory laboratory course for non-biology majors. This lecture/laboratory course will cover the techniques used by forensic scientists to analyze a crime scene and the biological concepts behind them. Through the topics that are covered, you will understand how biological evidence like fibers, blood, DNA, are collected analyzed and presented as evidence to solve crimes.

The credits from this course will not count towards credits required for the Biology Major. Students who successfully complete the course will receive 4.5 credits towards Hunter College's Stage 2/E (Broad Exposure: Natural Science) or LiPS (Life and Physical Sciences).

Instructor: Dr. Saranna Belgrave

Goals of the Course:

1. Identify and apply the fundamental concepts and methods of life or physical science.
2. Apply the Scientific method to explore natural phenomena, including hypothesis development, observation, experimentation, measurement, data analysis and data presentation.
3. Use the tools of a scientific discipline to carry out collaborative laboratory investigations.
4. Gather, Analyze, and interpret data and present it in an effective written laboratory or fieldwork report.
5. Identify and apply research ethics and unbiased assessment in gathering and reporting scientific data.

Classroom Culture is an important part of your learning experience.

1. **Be present in our sessions.** The virtual environment is a unique one! Being present listening and joining in discussion will allow you to get more out of the class and make it enjoyable!
2. **Participate**. Joining the discussion is HIGHLY encouraged. Your thoughts and contributions are valuable! Share them! It will only make the discussion richer and we can all learn from one another.
3. **COMMUNICATION** is important in this course. Respectful, clear communication with classmates and appropriate, clear communication with myself.

Reading(s):

We are using Open Education Resource (OER) Texts that have been edited and modified for this course. Readings will be available to all students on Bb.

Virtual class Sessions:

All class sessions will be virtual for Fall 2021. Please be sure to attend all scheduled sessions because exams will be based on required reading as well as on discussions and topics covered in virtual lecture sections.

Class Participation (which is influenced by class attendance) is an important part of your overall grade. During lecture, Bb readings as well other supplemental topics will be discussed and included on exams. **Participation points can be earned during in class activities and participation quizzes which will be administered over Blackboard during class sessions.**

The Course Material that you will be responsible for in this course will be provided for you on Bb. It is your responsibility to regularly check and thoroughly review for understanding the materials provided for you.

The Lab Manual will be given during laboratory sessions or posted on Bb. It is your responsibility to collect you lab materials and record data in to a 1-2'' notebook/binder for grading.

	Points per Assessment	Total Points/Notes
	LECTURE	
(4) Lecture Exams	80 points each	**Best 3 out of 4 will be used to calculate the final grade= 240 points**
Lecture Participation		
	Exam Question Pool Contribution (1.5 pt/exam)-Due midnight before exam date	**= 6 points**
	18 Lecture Session Engagement Quiz (3 pts/session)-Due midnight on the day the quiz was launched	**= 54 points**
		= 60 points
	LAB	
(10) Lab Quizzes	**10 points each**	**= 100 points**
Lab Exam/Practical		**= 25 points**
Lab Presentation		**= 75 points**
	TOTAL	**= 500 points**

Laboratory attendance is mandatory. If you miss a laboratory session, your total lab score will be reduced as follows: 1 absence = (total lab score) will multiplied by 0.9. Two absences = (total lab score) will be multiplied by 0.8. Three absences = (total lab score) will be multiplied by 0.7, etc. You will be able to take the laboratory quiz at discretion of your instructor. Each laboratory quiz is worth 10 points and will cover 50% of the previous lab material and 50% of the current lab material. There will be a comprehensive lab exam worth 25 points given during part of a laboratory session later in the semester

Laboratory Presentation: Each individual student will give a presentation during the last lab meetings(s). This presentation will be based on an actual crime investigation/trial **previously approved by your lab instructor.** The presentation should be created in PowerPoint. Students should use information learned in lecture and laboratory plus information from the internet (properly cited, of course) to explain a case, some of the evidence (including biological background) and the results. **Later in the semester you will be given a document that has a more detailed outline of points and ideas for the presentation.**

Exams: Tests will cover the material found in the required readings and supplemental topics discussed during class. You are responsible for relevant material from lecture, posted Blackboard items, and guest lectures. There will be 4 exams, each worth 80 points. You are responsible for understanding/using material that may have been introduced from previous exams. The lowest grade of the 4 tests will not be counted in your final grade calculation. All exams will be given through Blackboard. No make-up exams will be given unless proper documentation is submitted to me for review.

Cheating: Any sign of cheating (including plagiarism and copying will result in immediate failure of the quiz, test, report or presentation and will not be dropped. If you cut and paste/copy words for use in any essay or presentation, this is considered plagiarism. For this course there is a zero tolerance policy for failure to be in compliance with Hunter College's Academic Integrity policies.

Academic Integrity Statement: "Hunter College regards act of academic dishonesty (e.g plagiarism, cheating on examinations, obtaining unfair advantage, and falsification of records and official documents) as serious offenses against the values of intellectual honesty. The College is committed to enforcing the CUNY Policy on Academic Integrity and will pursue cases of academic dishonesty according to Hunter College Academic Integrity Procedures"

Syllabus: Syllabus is guideline of what will be covered and subject to change at the discretion of the instructor. You are responsible for any changes or materials covered in class. **Please refer to Bb regularly.**

Lecture calendar: CSI: Hunter (Forensic Biology)- Fall 2021; Subject to change at discretion of the instructor

Lecture #	Date	Day	Topic	Readings
1	8/26	THURSDAY	Introduction Course/Biology Definition/ Scope of Forensic Science	Module 1
2	8/31	TUESDAY	Forensic Science and History	Module 1
	9/2	THURSDAY	**NO CLASS**	
3	9/7	TUESDAY	History/Crime Scene Investigation	Module 1
4	9/9	THURSDAY	Chemistry & toxicology	Module 2
5	9/14	TUESDAY	Chemistry & toxicology	Module 2
	9/16	THURSDAY	**NO CLASS**	
6	9/21	TUESDAY	Exam #1 Review	
7	9/23	THURSDAY	**EXAM # 1**	Module 3
8	9/8	TUESDAY	Introduction to Biology- Biomolecules	Module 3
9	9/30	THURSDAY	Cellular Structure	Module 3
10	10/5	TUESDAY	Death of Cells	Module 4- Online Video
11	10/7	THURSDAY	Death Investigation and Pathology	
12	10/12	TUESDAY	Body Systems: Skeletal/Forensic/Anthropology	Module 4/5
13	10/14	THURSDAY	Exam # 2 Review	
14	10/19	TUESDAY	**EXAM # 2**	
15	10/21	THURSDAY	DNA: Structure & Replication	Module 6
16	10/26	TUESDAY	DNA: Modern Biology	Module 6
17	10/28	THURSDAY	Guest Speaker or Forensic Activity	
18	11/2	TUESDAY	DNA: Modern Biology	Module 6
19	11/4	THURSDAY	DNA: Detection	Module 6
20	11/9	TUESDAY	Guest Speaker or Forensic Activity	Module 6
21	11/11	THURSDAY	Exam # 3 Review	
22	11/16	TUESDAY	**EXAM # 3**	

23	11/18	THURSDAY	Guest Speaker or Forensic Activity	Material Presented will be on Exam 4
24	11/23	TUESDAY	Etymology	Module 7
	11/25-11/28	THURSDAY-SUNDAY	**NO CLASS**	
25	11/30	TUESDAY	Etymology 2	Module 7
26	12/2	THURSDAY	Forensic Botany 1	Module 7
27	12/7	TUESDAY	Forensic Botany 2	Module 7
28	12/9	THURSDAY	Identification of Biological Materials or Blood Spatter	Module 8
29	12/14	TUESDAY	Final Exam REVIEW!	
	12/15-12/21 FINALS	**TBA**	**Exam #4: NOT CUMULATIVE!**	
	12/21/21	Last day of Fall Semester		

***Lowest exam grade will be dropped. There are no makeup exams**

Note: Lecture and Lab calendars are subject to change, check Bb frequently for updates.