CSI:Hunter (Forensic Biology) Biol 150.00- Fall 2015

Professor: Janette Gomos Klein, PhD klein@genectr.hunter.cuny.edu
Office hours: Thursday 10am-12pm 818HN (refer to Bb)
Lab Manager: **Evan Lee** elee@genectr.hunter.cuny.edu (send all correspondence regarding lab makeup)
Lab instructors:
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Reading(s):
1) Required Textbook: Currently using a **custom text** using only some chapters from Pearson (at Hunter Bookstore ISBN 1269281526). It is a combination of: Saferstein's "Forensic Science: From Crime Scene to Crime Lab" 2ed + Goodenough's "Biology of Humans" 5ed. NOT full texts. See Hunter Bookstore. Etext also available for purchase: http://www.pearsoncustom.com/ny/hc_bio/
2) Required for attendance and participation grade: TopHat. Purchase online course # **366850;** Top Hat course name: **BIOL 150 - Fall 2015; link:** https://app.tophat.com/e/366850

Lab Manual: Will be given during laboratory sessions and will be available on Blackboard (Bb).

Current topics: a short article/movie will be assigned for class/group discussion regarding "The CSI Effect" and/or the Central Park Five case, current understanding of forensic biology, or a current forensic biology topic in the media. Speakers from relevant fields will be invited to speak to the course regarding their experience and the relationship of biology and/or forensics. Timing subject to change. Check syllabus regularly.

Course Description:
CSI: Hunter 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 fingerprints, blood, and 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 Fulfill Pathways/Hunter Core Requirement: Life and Physical Sciences.
Course Point Breakdown: 500 points total

Attendance and Participation:	60 points
Lecture Exams- best 3 of 4 (80 each):	240 points
Laboratory Quizzes (weekly):	100 points
Laboratory Notebook	25 points
Laboratory Exam/Practical:	25 points
Laboratory Presentation/Crime:	50 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 be 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. If you are more than 20

minutes late, it will count as an absence- no exceptions. You will be able to take the laboratory quiz at the discretion of your instructor. Each laboratory quiz is worth 10 points. There will a comprehensive "open book" lab exam worth 25 points given during part of a laboratory session.

Laboratory Notebook: Each student is expected to turn in weekly completed laboratory exercises. It will be graded on completeness: all lab components are included and properly labeled, all questions in the introduction, data/results, and interpretations are answered. These components should be completed each week during your laboratory session.

Laboratory Presentation: Groups of 2-3 students (at the discretion of your instructor) will give a presentation during the last lab meeting. This presentation will be based on an actual crime scene investigation/ trial previously approved by your lab instructor. In this PowerPoint presentation, I would like students to use materials 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, students will be given a more detailed outline of points and ideas for the presentation.

Syllabus: Syllabus is a 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.

Tests:
Tests will cover the material in the text plus supplemental topics discussed during class. You are responsible for any relevant material from lecture, the textbook, posted BlackBoard items, and guest lectures. There will be 4 multiple choice tests 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. Identification (Valid Student ID) is necessary at the time of each exam. No make-up exams will be given.

Attendance and Participation: TopHat will be utilized as a tool for classroom participation, attendance, and extra credit. You must set up an account with TopHat that links to this class (Biol 150-Fall 2015) for credit. This technology requires a cell phone with text capability, smart phone, tablet, or computer.

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.

Academic Integrity Statement: "Hunter College regards acts 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 the Hunter College Academic Integrity Procedures."

Lecture Calendar

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Lect	Date	Day	Topics	Readings
1	8/27	R	Introduction	Ch 1
2	9/1	T	Crime Scene and Evidence	Ch 2, 3, 4
3	9/3	R	Evidence	Ch 4, 5, part of 6
4	9/8	T	Evidence part II	Ch 4, 5, part of 6
	9/10	R	(Classes Follow a Monday schedule)	
	9/15	T	NO CLASSES	
5	9/17	R	Intro to Biology/Chemistry	Ch 7/8
	9/22	T	NO CLASSES	
6	9/24	R	Cells	Ch 9
7	9/25	F	Exam 1 (Classes Follow Tuesday Schedule)	
8	9/29	T	Death Investigation	Ch 10
9	10/1	R	Guest Speaker: Criminal Investigation; NYPD/Squad Security	
10	10/6	T	Body Organization/Skin/Hair	Ch 11, part of 6
11	10/8	R	Body Organization/Skin/Hair	Ch 11, part of 6
12	10/13	T	Osteology	Ch 13
13	10/15	R	Guest Speaker: Forensic Anthropology	
14	10/20	T	Exam 2	
15	10/22	R	Fingerprints	Ch 12
16	10/27	T	DNA: Chromosomes/Cell Division	Ch 15
17	10/29	R	DNA: Intro Genetics and Inheritance	Ch 16
18	11/3	T	DNA-genetics and biotechnology	Ch 14; 17 pg 333-352
19	11/5	R	Invited Speaker: OCME, Trace DNA	
20	11/10	T	Invited Speaker: Innocence Project	
21	11/12	R	DNA review/catch-up DNA and detection	

22	**11/17**	**T**	**Exam 3**	
23	**11/19**	**R**	**Blood**	**Ch 14/18**
24	**11/24**	**T**	**Semen**	**Ch 14; Ch 19 pg 444-449**
	11/26	**R**	**Thanksgiving Recess (No Classes)**	

25	**12/1**	**T**	**Serology**	**Ch 14 pg 319-328**
26	**12/3**	**R**	**Invited Speaker: NYPD -SVU**	
27	**12/8**	**T**	**Forensic Toxicology**	**Ch 20**
28	**12/10**	**R**	**Invited Speaker: FBI**	
	12/22	**T**	**Finals Week Exam 4 @ 1:45pm**	**(not comprehensive)**
				***Lowest exam grade will be dropped**

Lab Calendar

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Month	Monday	Tuesday	Wed	Thursday	Friday	Saturday
August				27 ***Classes begin***	28 Scientific Method Metric system	29 Scientific Method Metric system
September	31	1	2	3	4 NO LAB	5 NO LAB
September	7 ***Labor day*** **College closed**	8	9	10 Classes follow a Monday schedule	11 Fiber Analysis	12 Fiber Analysis
September	14	15	16	17	18 Microorganisms	19 Microorganisms
September	21	22 No Classes	23 No classes	24	25 CLASSES FOLLOW A TUESDAY SCHEDULE LECTURE EXAM 1	26 NO LAB
Sept./ October	28	29	30	1	2 Hair microscopy	3 Hair microscopy
October	5	6	7	8	9 Fingerprints	10 Fingerprints
October	12 **No classes** **College closed** ***Columbus day***	13	14	15	16 Osteology	17 Osteology
October	19	20 LECTURE EXAM 2	21	22	23 Blood	24 Blood
October/ November	26	27	28	29	30 DNA extraction/ heredity	31 DNA extraction/ heredity
November	2	3	4	5	6 PCR/ Restriction Digest	7 PCR/ Restriction Digest
November	9	10	11	12	13 DNA analysis, review	14 DNA analysis, review
November	16	17 LECTURE EXAM 3	18	19	20 Crime Movie(*The Central ParkFive*)/Discussion/Group Work/Q&A	21 Crime Movie(*The Central Park Five*)/Discussion/GroupWork/Q&A

November	23	24	25	26 **No classes** ***College closed Thanksgiving***	27 **No classes** ***College closed Thanksgiving***	28 **No classes+** ***College closed Thanksgiving***
November/ December	30	1	2	3	4 LAB EXAM/ PRACTICAL	5 LAB EXAM/ PRACTICAL
December	7	8	9	10	11 Lab Presentations	12 Lab Presentations
December	14	15	16	17	18 NO LAB	19 NO LAB

Note: Lab calendar is subject to change, check BB

Final Examinations, Dec 15-23

FORENSIC FINAL EXAM WILL BE DECEMBER 22 @1:45PM

Lab Manager: **Evan Lee** elee@genectr.hunter.cuny.edu

Send all correspondence regarding lab and lab makeup to Evan Lee