

## **Biology 830P03 Special Topics in Biology: Forensic Biology**

### **Course Description**

This course will be a wide consideration of all aspects of Forensic Biology ranging from general considerations to the latest in molecular techniques. We will also review current literature, discuss case studies, and look at some mass-market publications on crime scene investigation.

### **Course Objectives**

- \*Students will be able to explain the various stages of decay.
- \*Students will be able to explain and analyze theoretical crime scene evidence.
- \*Students will be able to understand and explain how evidence can be obtained from bacteria and viruses.
- \*Students will be able to understand and explain how evidence can be obtained from protists, fungi, and plants.
- \*Students will be able to understand and explain how evidence can be obtained from invertebrates.
- \*Students will be able to understand and explain how evidence can be obtained from vertebrates.
- \*Students will be able to understand and analyze molecular forms of crime scene evidence.

### **Syllabus**

All chapter assignments refer to Essential Forensic Biology by Alan Gunn; 2<sup>nd</sup> Edition, Wiley Interscience.

**Week 1 (5/23-5/27)**– Body Fluids and Waste Products & Molecular Biology– Chapter 2 & 3– **Timed online quiz** available 5/27-5/29. **Paper review or assignment available 5/27 due 6/3 (20 points).** Independent reading The decay, discovery, and recovery of human bodies – Chapter 1.

**Week 2 (5/31-6/3)** – Human Tissues & Wounds – Chapter 4 & 5 – **Timed online quiz 6/3-6/5.**

**Week 3 (6/6-6/10)** – Bacteria and Viruses – Chapter 10 – **Timed online quiz 6/10-12. Paper review or assignment available 6/10 due 6/17 (20 points).**

**Week 4 (6/13-6/17)**– Protists, Fungi, and Plants – Chapter 9 – **Test 1 timed online portion available 6/17-19. Take home portion available 6/17 due 6/24.**

**Week 5 (6/20-6/24)** – Invertebrates 1 – Chapter 6 –**Timed online quiz 6/24-6/26.**

**Week 6 (6/27-7/1)** –Invertebrates 2 – Chapter 7 – **Timed online quiz 7/1-7/3. Paper review or assignment available 7/1 due 7/8 (20 points).**

**Week 7 (7/5-7/8)** – Vertebrates – Chapter 8 – **Timed online quiz 7/8-7/10.**

**Week 8 (7/11-15) – Molecular Forensics – Deeper consideration – No Reading.**

**Final Exam- Online portion available 7/8-7/15. Take home portion available 7/8 due 7/15. Both portions are comprehensive.**

**The Basics:**

**The Instructor:** Paul G. Twigg, BHS Greenhouse, Phone: 865-8315; twiggp@unk.edu  
Other phone numbers: Dept- 865-8548, Dept. Head- 865-8603, NSS Dean- 865-8518

Letter grades will be assigned on the following scale:

A+ (98-100%, 431-440 points)	A (92-97%, 405-430 points)	A- (90-91%, 396-404 points)
B+ (88-89%, 387-395 points)	B (82-87%, 361-386 points)	B- (80-81%, 352-360 points)
C+ (78-79%, 343-351 points)	C (72-77%, 317-342 points)	C- (70-71%, 308-341 points)
D+ (68-69%, 299-307 points)	D (62-67%, 273-298 points)	D- (60-61%, 264-272 points)
F (less than 272 points)		

**Course Point Totals:**

1 Regular Exam (120 pts)-	120 pts
1 Final Exam (200 pts)-	200 pts
6 Online quizzes (10 pts each)-	60 pts
Assignments/Paper reviews (20 pts each)-	<u>60 pts</u>
Total-	440 pts

**Course Policies-**

\*All course assignments are to be submitted as email attachments in Microsoft Word format (.doc or .docx)

\*Policy on plagiarism: Anyone caught plagiarizing any exercise will receive a 0 for that exercise; subsequent violations will result in referral to the Vice Chancellor for Academic Affairs for dismissal from the university.

\*Policy on incomplete: To be considered for an incomplete in Biology 830.03:

1. You must submit the reasons you cannot complete the scheduled work. This must include a copy of your class schedule and description of your responsibilities outside the classroom. This should be done in writing and include confirmation from your employer or doctor when appropriate.
2. You must specify the assignments you have missed and a schedule of plans to complete them.
3. You must submit a copy of the above information to the Chair of the Department of Biology and the Dean of Natural and Social Sciences.
4. Upon completion of items 1-3, your request for an incomplete will be considered. I expect all students to progress through the requirements for Biology 830.85 in a timely fashion. Unless your circumstance is quite remarkable, do not consider an incomplete.

\*Tests and quizzes will not be rescheduled without valid reason.

#### Students with Disabilities

The university is committed to providing support for students with disabilities. Any student with a physical, learning, emotional, and/or psychological disability is encouraged to stop by the Academic Success Office, room 163 MSAB, and make an appointment with David Brandt, Disabilities Coordinator. Appointments can also be made by calling 865-8214 or by emailing [brandtdl@unk.edu](mailto:brandtdl@unk.edu). If you have an accommodation plan please see me as soon as possible so we can make arrangements necessary for your learning. No accommodations can be provided until a Reasonable Accommodation Plan is in place. Please remember that an accommodation plan is *not* retroactive and *cannot* be used for assignments prior to the date of my signature.