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CJUS 488.01: Forensic Science - The Crime Lab and Beyond

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Forensic Science The Crime Lab and Beyond

CJUS 488

MWF 9:00-9:50 in SS 254

Dr. Randy Skelton 226 Social Sciences Building

Office Hours: MWF 8:00-8:50, TR 10:00-11:00

Email: randall.skelton@umontana.edu

EXPECTED OUTCOMES

In this class students will learn the following things:

- The fundamental theories and practices of forensic science
- How conclusions are drawn from forensic evidence
- The roles of forensic scientists, police officers, attorneys, and others in a criminal investigation
- The types of questions and analyses addressed by a broad spectrum of forensic sciences
- The existence and nature of new and emerging forensic sciences
- The application of forensic sciences to a variety of modern problems, such as wildlife and conservation, national security, organized crime, and history.

ADMINISTRIVIA

Text and other materials: Readings should be read before coming to class.

Skelton, RR. 2011. *A Survey of the Forensic Sciences*. www.Lulu.com. ISBN 978-1-4357-6762-1. You can purchase it from the bookstore, purchase it cheaper from www.lulu.com (search for "A Survey of the Forensic Sciences", with quotes), or download it as a .pdf file from Moodle.

Lecture notes for this class are accessible through a Moodle supplement. Your instructor only provides content for Moodle and is not involved with its administration. If you need help with computing or with accessing Moodle contact Moodle Tech Support (243-4999, umonline-help@umontana.edu).

Student Conduct: Students are expected to be familiar with and abide by the student conduct code, which can be found at <http://www.umn.edu/student-affairs/community-standards/default.php>.

Disability Accommodations: Students with disabilities are welcome. I assume that accommodation services will be provided by the Office of Disability Equality. See <https://www.umn.edu/disability/>.

Exams and Grading: Grades will be based on exams and participation in the class. All exams will be administered via Moodle this semester to prevent handling of paper. 90% of your grade will be based on your three best of four exams offered over the semester with the remaining 10% based on participation/attendance. I will take attendance, at least randomly and sporadically. The four exams will consist of three midterms, and a cumulative final. I use this grading scale: A = 100-90, B = 89-80, C = 79-60, D = 59-50, F = 49-0. I reserve the right to modify these basic grades with a + or - in special circumstances. The grading mode is "open" meaning that you can take the class for a traditional grade or CR/NCR. If you take a class CR/NCR you cannot count it toward specific major, minor, option, or certificate requirements that require a minimum grade.

Graduate Increment: In addition to the other requirements of the class graduate students will write a 10 to 15 page term paper on one of the forensic sciences, which describes the breadth of the forensic science, the type of court cases in which it is use (e.g. criminal or civil cases), and required qualifications and certifications for professionals. The paper must be in scientific paper format and include at least 15 sources. The paper is due on the last day of regular classes (before finals week).

CJUS 488: PROVISIONAL* LECTURE SCHEDULE

DATE	DAY	LECTURE	READINGS FROM SKELTON TEXT
PART 1: Criminalistics			
1/17	M	!!! MARTIN LUTHER KING HOLIDAY!!!	
1/19	W	1. Introduction to the Class	Chapter 1
1/21	F	2. Introduction to Forensic Science	Chapter 2
1/24	M	3. The Scientific Method	Chapter 3
1/26	W	4. Criminal Investigations	Chapters 4 & 5
1/28	F	5. The Crime Scene	Chapter 6
1/31	M	6. Forensic photography, forensic art, and the Crime Lab	Chapter 7
2/2	W	7. Criminalistics and Trace Evidence	Chapter 10
2/4	F	8. Firearms and Toolmarks	Chapter 13 & 1 st half of 14
2/7	M	9. Prints	Chapter 16
2/9	W	10. Impressions and Questioned Documents	Chapter 17 & 2 nd half of 14
2/11	F	11. Forensic Botany, Entomology, and Geology.	Chapter 29
2/14	M	12. Jurisprudence	Chapters 46 & 52
2/16	W	*** EXAM 1 *** Covering lectures 1 thru 12	
PART 2: Investigation of Deaths and Their Circumstances			
2/18	F	13. Toxicology, Chemistry, and Drugs	Chapters 22 & 23
2/21	M	!!! PRESIDENTS DAY HOLIDAY!!!	
2/23	W	14. Coroners, M.E.'s, Pathologists, and Autopsies	Chapters 24 & 25
2/25	F	15. Forensic Anthropology	Chapter 27
2/28	M	16. Forensic Odontology	Chapter 28
3/2	W	17. Serology of Blood	Chapter 19
3/4	F	18. Serology of Other Bodily Fluids	Chapter 20
3/7	M	19. DNA analysis	Chapter 21
3/9	W	20. Forensic Engineering	Chapter 30
3/11	F	21. Fires and Explosives	Chapters 11 & 31
3/14	M	22. Forensic Databases	Chapter 37
3/16	W	23. Historical Forensic Science	Chapter 49
3/18	F	24. Wildlife Forensic Science	Chapter 48
3/21-3/25		!!! SPRING BREAK !!!	
3/28	M	25. Forensic Computer Science (on exam 3)	Chapter 32
3/30	W	*** EXAM 2 *** Covering lectures 13 thru 24	
PART 3: Investigating Crimes of the Modern Era			
4/1	F	26. Digital Evidence	Chapter 33
4/4	M	27. Networks and Security	Chapter 34
4/6	W	28. Forensic Audio and Video	Chapter 35
4/8	F	29. Surveillance and Biometrics	Chapter 36
4/11	M	30. Forensic Psychology & Psychiatry	Chapter 38
4/13	W	31. Lie Detection and Hypnosis	Chapter 39
4/15	F	32. Psychological Findings and Profiling	Chapter 40
4/18	M	33. Statistical and Geographic Profiling	Chapter 41
4/20	W	34. Forensic Accounting	Chapter 42
4/22	F	35. Occupational Fraud	Chapter 43
4/25	M	36. Organized Crime	Chapter 44
4/27	W	37. Homeland Security and Terrorism	Chapter 45
4/29	F	38. Other Forensic Sciences and Technologies: Forensic Knots, Linguistics, Phylogenetics, Mathematics, Economics, Meteorology, Nursing, Pharmacy, Medicine, Social Work	Chapter 47
5/2	M	39. What's Wrong with the Justice System	Chapter 52
5/4	W	40. Pseudoscience	Chapter 50
5/6	F	*** EXAM 3 *** Covering lectures 25 thru 40	
5/11	W	*** FINAL EXAM *** As regularly scheduled for MWF 9am.	

* This lecture schedule is provisional and tentative. Things may change. Changes to the schedule will be posted on Moodle and announced in class.

COVID Mitigation Procedures

The University has instituted several COVID mitigation procedures that will impact our class. I submit to them under protest, but we really have no choice other than to follow these procedures.

1. Everybody in the classroom must wear a mask. If you don't have a mask or aren't wearing one I am required to ask you to leave the classroom. If an unmasked person fails to leave the classroom I'm required to cancel class for that day.
2. If you feel sick and/or are exhibiting COVID symptoms, please don't come to class and contact the Curry Health Center at (406) 243-4330.
3. I plan to zoom each class meeting to accommodate those who might be quarantined or required to isolate. Given my experience doing this in previous semesters it's not an optimal experience so I don't recommend using Zoom unless you absolutely can't attend class. The Zoom sessions may not always go smoothly, because despite my B.S. degree in computer science I'm not very good with techy techy crap like Zoom. I will apologize ahead of time if something doesn't work right.
4. UM recommends students get the COVID vaccine and booster. Please direct your questions or concerns about vaccines to the Curry Health Center.
5. Drinking liquids and eating food is discouraged within the classroom.
6. In order to prevent us all from handling paper we are asked not to hand out paper syllabi this year, but you can get it from Moodle.
7. Also to avoid handling paper, all exams will be administered through Moodle this year. The exam access will be virtually the entire day for which the exam is scheduled (12:05am to 11:55pm). Although university excused absences (see the catalog) are allowed, I will not generally be willing to reschedule an exam for individual students.
8. We are not required to have assigned seating charts at this time, but they may be required later in the semester.

I hope these procedures are not too nasty, and I apologize if they are.