

**FIVS 415 *Practices & Principles of Science & Law***  
**Three Credit Hours (3-0)**  
**TR: 8:00-9:15**

**Location: Heep Center-West Campus, Room 102**

**Instructor: Tomberlin, Jeffery K.**

[jktomberlin@ag.tamu.edu](mailto:jktomberlin@ag.tamu.edu)

**845-9718**

**Office Hours: TR: 8:00-9:15**

**Room 420 Heep**

\*Information in this syllabus adapted from Summers 2007.

**Prerequisites:** None.

**Attendance:** Subject to attendance check each scheduled class period.

**Required Text:** None (reading material provided by instructor)

**Handouts** may be used throughout course.

**Course Description:** Students will be introduced to understand the interactions between science and law as it pertains to evidentiary procedures in the court of law. Students will also be introduced to the concepts behind decisions on admitting or refuting scientific evidence in court. Students will learn the processes necessary for researching previous cases that support targeted evidence being admitted into court. Students will also learn procedures for discussing and debating admissibility of evidence.

**Learning Outcomes:**

- Students should be able to critically review scientific information as it relates to court decisions.
- Students will be able to locate resources related to science in the courtroom.
- Students will be able to conduct database searches for cases supporting or refuting scientific data used as evidence.
- Students will be able to learn to efficiently and coherently present information supporting and refuting positions related to the admissibility of scientific evidence in court.

**Instructor and Student Objectives:**

- **Instructor:** The instructor will work towards effective communication with students in regards to what is expected from them for the course. The instructor will also work to effectively communicate subject matter of course to students.
- **Student:** The students should be prepared to devote time outside of class towards reading assignments, which will be part of examination process. Students are expected to exhibit respect in the classroom for other students and instructors. Interacting with students during lecture (i.e. talking, cell phones and other electronic devices) will not be permitted. Students doing so could be asked to leave the class. Students are asked to meet with the professor to discuss grades or other matters related to the course. Students are asked to dress professionally during their presentations.

**Conduct of Course:**

- Lectures will be conducted with the use of chalk board and slides. Instructor will interact with students throughout the semester.
- Discussion groups will be conducted.
- Students will be asked to participate in activities.

**Leaving the room during lectures and examinations:** In order to leave the class, students are required to ask for permission of the professor or student proctor. If this need is frequent, students are required to provide physician's statement to the professor.

**Evaluation Procedure:**

*What students must know to:* The student will be responsible for all of the assigned reading material even if the assigned material is not addressed during a lecture. The student will also be responsible for any facts or information introduced during a lecture or by handout that the professor states as new material or material relevant to the course and which is not in the course reading assignment. The student will be expected to know basic sciences applied to forensics that the professor indicates as essential, and to explain and describe them under the forensic context. Retained knowledge of certain facts is fundamental to computer-assisted learning or other learning approaches and, most importantly, for correlating concepts in their practical use or for problem solving. The student will be expected to use the "language" and "dictionary" of the forensic sciences both verbal and written formats as defined by the textbook and in class lectures during their discussions in class, on exams and in problems sets.

There will be no excused departures from the classroom during an exam. If one must leave the room during an exam, that student's exam must be terminated and submitted to the Professor. If there is an exception, determination is at the discretion of the Professor and for only very unusual circumstances.

"On my honor as an Aggie, I have neither given nor received unauthorized aid on this academic work." This means that each student's effort on a problem set will be individual, not a team effort with other members of the class, or based upon consultation with anyone outside of the professor in charge of the course, or someone whom the professor designates to give advice or assistance.

**Questions on exams taken:** The time required for the student requesting clarification on answers to exam questions is limited to one week after return of the exam to the student. The student will be expected to arrange an appointment convenient to the student and Professor, but still within the week following return of the exam.

**MAKE-UP EXAMS ARE GIVEN WHEN VALID EXCUSE IS PROVIDED.** Make-up examination will consist of essay questions. Students will have two weeks from the date of the initial examination to take make-up examination. If student does not take exam during that period, the student will receive a zero for that examination. University accepted excuses are needed in order to take make-up exam. Professor discretion can be implemented.

The university views class attendance as an individual student responsibility ( <http://student-rules.tamu.edu> ) (*Please note the newly amended student rules will be on line August 15, 2006.*) Students are expected to attend class and to complete all assignments. Instructors are

expected to give adequate notice of the dates on which major tests will be given and assignments will be due. This information should be provided on the course syllabus, which should be distributed at the first class meeting. Graduate students are expected to attend all examinations required by departments or advisory committees as scheduled formally. Assignments turned in late will be reduced by 10% of total point value with each day that passes from the due date.

**7.1 The student is responsible for providing satisfactory evidence to the instructor to substantiate the reason for absence. Among the reasons absences are considered excused by the university are the following: to view Rule 7, please go to <http://student-rules.tamu.edu/rule7.htm>**

**For this class a Texas A&M University Explanatory Statement for Absence from Class form ( <http://attendance.tamu.edu> ) and a Confirmation of visit to a health care professional affirming date and time of visit will need to be obtained and presented to the Instructor.**

**Utilization of Health Center services does not indicate that a class excuse will be given.** Each patient is given a receipt upon payment for services; however, this is not a class excuse and is solely for insurance purposes should the student choose to file a claim. Students are encouraged to communicate with their instructors if they are going to miss class for any reason. A copy of *Student Rules* may be obtained from Student Activities in the Koldus Building or at the following website: <http://student-rules.tamu.edu>

**7.1.7 Required participation in military duties.**

**7.1.8 Mandatory admission interviews for professional or graduate school which cannot be rescheduled.**

**7.2 If the student is found to be too ill to attend class by a Health Center physician, the director of the Health Center or his/her representative will, on request of the student, confirm this fact.**

**7.3 If an off-campus physician provides evidence of a student's illness, the excuse documentation must contain the date and time of the illness and doctor's opinion that the student was too ill to attend class. If a physician determines that the student is not ill, he or she will not receive an excuse. If no evidence is available, the instructor will decide whether makeup work will be allowed.**

**7.4 The associate dean for undergraduate programs, or the dean's designee, of the student's college may provide a letter for the student to take to the instructor stating that the dean has verified the student's absence as excused.**

**7.5 If the student is seeking an excused absence, the student must notify the instructor as soon as possible after the absence, but no later than the end of the second working day after the last date of absence. If the absence occurs the same day as a scheduled exam or**

other graded procedure, the student must notify his/her instructor or department by the end of the next working day after the absence in order to ensure full rights. The student is responsible for providing satisfactory evidence to the instructor within one week of his or her absence return to substantiate the reason for absence. If the absence was excused, the instructor must either provide the student an opportunity to make up the exam or other work missed or provide a satisfactory alternative completed within 30 calendar days from the last date of absence.

**7.6 The instructor is under no obligation to provide an opportunity for the student to make up work missed because of an unexcused absence.**

**7.7 See Part III, Grievance Procedures: 49 <http://student-rules.tamu.edu/part3.htm> Unexcused Absences, for information on appealing an instructor's decision.**

**7.8 If the student is absent for excused reasons for an unreasonable amount of time during the semester, the academic dean of the student's college may consider giving the student a grade of W during the semester enrolled or a NG (no grade) following posting of final grades.**

**7.9 Whenever a student is absent for unknown reasons for an extended period of time, the instructor should initiate a check on the welfare of the student by reporting through the head of the student's major department to the dean of the student's college.**

## **X. Other Class Procedures:**

*Tutoring assistance and support services:*     **Center for Academic Enhancement**  
Texas A&M University  
525 Blocker  
College Station, Texas 77843-4230  
(979) 845-2724  
<http://slc.tamu.edu/>

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The Center for Academic Enhancement offers, at no cost to the student, a variety of learning assistance programs designed to develop and improve skills necessary for success in college-level courses. Assistance available includes:

- **Academic Assistance Clearinghouse** - The Texas A&M University Academic Assistance Clearinghouse at <http://www.tamu.edu/aac> provides students with information on the academic assistance programs and services available, free of charge, from academic departments.
- **Supplemental Instruction** - regularly scheduled, out-of-class, study and review sessions for selected core curriculum courses. SI sessions are open to all students in the course section, and attendance is voluntary. Traditionally difficult courses are targeted for the program with study sessions being led by professionally trained students who have demonstrated competence in the course. National evaluation data show that the average course grade of SI participants is between one-half and one full

letter grade higher than the average course grades of students not participating in SI. Local data are consistent with national evaluation data.

- **CAEN 101: Succeeding in College** - a two credit hour which is a study of critical theories of learning with application to academic performance. Eligible students may register on-line or students can be referred by an academic advisor.
- **CAEN 102: Career Awareness** - a two credit hour course which introduces students to the concepts of career planning, employment trends, and methods of researching and preparing for the job market.
- **CAEN 289: Special Topics** – variable credit courses offered by CAE staff or other faculty on campus to meet specific needs for academic support or student development a two credit hour course which introduces students to the concepts of career planning, employment trends, and methods of researching and preparing for the job market.

**To register for courses or for more information, contact the Center for Academic Enhancement, 845-2724, or come by 525 Blocker.**

**ATMentors Program Office**

Henderson Hall

Texas A&M University

College Station, TX 77843-1263

(979)

845-6900/1-800-828-0888

<http://mentors.tamu.edu/>

MENTORS are Texas A&M faculty, staff, and administrators who volunteer extra office hours to make themselves available to students who “just want to talk to someone.”

MENTORS are available to talk with, listen to, and help each student feel a part of the Aggie community. MENTORS advise students in their areas of experience and competence, and they are trained to be effective referral sources to other Texas A&M services for specific problems or needs.

With almost 400 MENTORS, you can find at least one in almost every department and every location on campus. The MENTORS have complete directories of every MENTOR’s name, department, location, and telephone number. To find a mentor for Biology go to: <http://mentors.tamu.edu/> Complete lists of MENTORS are available from your Resident Director, the Housing Programs Office, the Off Campus Center, the Area Offices, the Library Reserve section, and the Student Counseling Service.

The MENTORS program does not attempt to replace or substitute for in any way the programs provided by departmental advisers, the Student Counseling Service, and the many other valuable student services available at Texas A&M University. On the contrary, MENTORS works hand-in-hand with all of these services, helping students to locate and use them. Representatives from various student services participate in discussion groups and share their particular expertise with participating MENTOR faculty, staff, and administrators, who work with these programs to help students.

**Student Counseling Service**

Henderson Hall

Texas A&M University  
College Station, TX 77843-1263  
(979) 845-4427  
Help Line: (979) 845-2700 <http://www.scs.tamu.edu>

Students are invited to talk with professional counselors and psychologists about any concerns that affect their academic progress, educational goals, choice of career, personal-social effectiveness or emotional well-being. In counseling, the focus is on assisting students with developing academic, career planning, and personal skills; understanding themselves and their concerns; and making decisions and changes that they judge are best for them.

The following services are provided for students:

- **Learning Skills Assistance** - Individual assistance with and workshops on study skills, test taking, time management, etc. Also available is information about academic support services such as tutoring, help desks, etc.
- **Educational Planning** - Choosing an academic major (departmental academic advisers assist students with selecting classes).
- **Career Counseling** - Learning about one's interests, personality, values and various career opportunities in order to make informed career decisions.
- **Computer Assisted Career Guidance** - Assistance with clarifying one's values in order to identify career alternatives.
- **Personal-Social Counseling** - An opportunity to talk about personal values and beliefs, relationships, sexual development and concerns, and behaviors that are problematic. Couples, premarital, marriage and divorce counseling are also available.
- **Relaxation Training** - Learning to cope better with stress in order to become a more effective student and person.
- **Group Counseling** - Includes, among other experiences, choice of academic major workshops, career decision-making workshops, and groups focusing on the development of effective personal-social skills and the resolution of various specific concerns.
- **Emergency Counseling** - From 8 a.m. to 5 p.m., Monday through Friday, come to the Student Counseling Service (Henderson Hall, Room 104). At night and on weekends, go to the Health Center (use the urgent care entrance) or call (979) 845-1557.
- **Test Interpretation** - Study skills, career interest, and personality inventories are provided and are interpreted by a counselor to assist the student with improving learning skills, selecting a major and career, and developing self-understanding.
- **Information Libraries** - Up-to-date and comprehensive libraries of academic, educational, career, and personal self-help information are available for use without an appointment.
- **CounselLine Self-Help Program** - Provides basic information about a wide variety of academic, career, and personal concerns. Call (979) 845-2958 to anonymously request any tape(s) or information about available tapes.
- **Referral Resource** - Counselors can refer students to other specialized services, including long-term counseling resources, found within the University and the surrounding geographic area.

The Student Counseling Service respects the confidential nature of counseling sessions to the limits provided by law, and no record of a student's visits is made on an academic transcript or in a placement file. Except for certain special services, no fees are charged for counseling.

Appointments for limited duration counseling services may be arranged by calling (979) 845-4427, or by going to the Student Counseling Service located in Henderson Hall. In a CRISIS/EMERGENCY situation, the student should come to the Student Counseling Service during weekday, daytime service hours. At night or on weekends the student should go to the second floor of the Student Health Center (use the "Urgent Care" entrance), or call (979) 845-1557.

#### **XI. Academic Dishonesty:**

<http://student-rules.tamu.edu>

*From Texas A&M University Student Rules*

#### **Scholastic Dishonesty**

**Students in MCB213:200 are expected to carry out course responsibilities in compliance with the Aggie Honor Code: "An Aggie does not lie, cheat, or steal or tolerate those who do."**

**Honor Council Rules and Procedures on the Web at: <http://www.tamu.edu/aggiehonor>**

Misconduct in research or scholarship includes fabrication, falsification, or plagiarism in proposing, performing, reviewing, or reporting research. It does not include honest error or honest differences in interpretations or judgments of data.

Texas A&M University students are responsible for authenticating all work submitted to an instructor. If asked, students must be able to produce proof that the item submitted is indeed the work of that student. Students must keep appropriate records at all times. The inability to authenticate one's work, should the instructor request it, is sufficient grounds to initiate an academic dishonesty case.

Academic dishonesty includes the commission of any of the following acts. This listing is not, however, exclusive of any other acts that may reasonably be called academic dishonesty. Clarification is provided for each definition by listing some prohibited behaviors.

#### **1. Cheating**

Intentionally using or attempting to use unauthorized materials, information, notes, study aids or other devices or materials in any academic exercise.

#### **2. Fabrication**

Making up data or results, and recording or reporting them; submitting fabricated documents.

#### **3. Falsification**

Manipulating research materials, equipment, or processes, or changing or omitting data or results such that the research is not accurately represented in the research record.

#### **4. Multiple Submissions**

Submitting substantial portions of the same work (including oral reports) for credit more than once without authorization from the instructor of the class for which the student submits the work.

#### **5. Plagiarism**

The appropriation of another person's ideas, processes, results, or words without giving appropriate credit.

#### **General information pertaining to plagiarism:**

##### Style Guides:

Instructors are responsible for identifying any specific style/format requirement for the course. Examples include, but are not limited to, American Psychological Association (APA) style and Modern Languages Association (MLA) style.

##### Direct Quotation:

Every direct quotation must be identified by quotation marks or appropriate indentation and must be properly acknowledged in the text by citation or in a footnote or endnote.

##### Paraphrase:

Prompt acknowledgment is required when material from another source is paraphrased or summarized, in whole or in part, in one's own words. To acknowledge a paraphrase properly, one might state: "To paraphrase Locke's comment..." and then conclude with a footnote or endnote identifying the exact reference.

##### Borrowed facts:

Information gained in reading or research, which is not common knowledge, must be acknowledged.

##### Common Knowledge:

Common knowledge includes generally known facts such as the names of leaders of prominent nations, basic scientific laws, etc., basic historical information (e.g., George Washington was the first President of the United States.) Common knowledge does not require citation.

##### Works Consulted:

Materials which add only to a general understanding of a subject may be acknowledged in the bibliography, and need not be footnoted or end-noted. Writers should be certain that they have not used specific information from a general source in preparing their work unless it has been appropriately cited. Writers should not include books, papers, or any other type of source in a bibliography, "works cited" list, or a "works consulted" list unless those materials were actually used in the research. The practice of citing unused works is sometimes referred to as "padding."

##### Footnotes, endnotes, and in-text citations:



One footnote, endnote, or in-text citation is usually enough to acknowledge indebtedness when a number of connected sentences are drawn from one source. When direct quotations are used, however, quotation marks must be inserted and acknowledgment made. Similarly, when a passage is paraphrased, acknowledgment is required.

Graphics, design products, and visual aids:

All graphics, design products, and visual aids from another creator used in academic assignments must reference the source of the material. General information pertaining to plagiarism:

## 6. Complicity

Intentionally or knowingly helping, or attempting to help, another to commit an act of academic dishonesty.

For additional information please see: <http://www.tamu.edu/aggiehonor/>

## XII. Americans with Disabilities Act (ADA):

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact the Office of Support Services for Students with Disabilities in Room 118B in the Cane Hall. The phone number is (979) 845-1637 or visit their website at: <http://disability.tamu.edu>

**Grading:** Five elements each valued at 20% of final grade.

*Debates (50 pts/debate)	200 pts
Presentation/Summary	50 pts
Out of class assignment	50 pts
Examination I	50 pts
Examination II	50 pts
Examination III	50 pts
Final Examination (not cumulative)	50 pts
Participation	50 pts
Total Points	550 pts

Final grades will be based on the percentage of total points earned, thus  
A=90-100%; B=80-89; C=70-79; D=60-69; F=<60.

\*Debates tentatively will be based upon evaluation by the professor (80%), the class (10%), and team participants (10%). A rubric for the evaluation by students will be provided by the professor.

**Tentative schedule of lectures, demonstrations, and examinations:**

**FIVS 415: Science and Law**

**Proposed syllabus:**

Week	Joint Assignment	FIVS 415	Date	FIVS 435
1 (joint classes)		Welcome & Rubric	14 January	Welcome & Rubric
1		Paper 1	16 January	Scientific Method, Lakatos, Platt, Kuhn
2		Library	21 January	Library
2 (joint classes)		Daubert and Science	23 January	Scientific Method, Chapter 1
3	Assign one article and discuss rubric for presentations	Paper 2	28 January	Reading scientific papers.
3 (joint classes)		Paper 3	30 January	One page article review due.
4		PRESENTATION	4 February	PRESENTATION Review presentations, assign Forensic Science vs Non-forensic science
4		Exam #1	6 February	Mid Term Exam
5		Paper 4	11 February	In class work, compare For Sci vs. Non-For Sci
5		Paper 5	13 February	PRESENTATION, 2 page comparison paper due
6 (joint classes)	Assign AAFS/articles (5) (5 page maximum summary paper)	Out of class assignment	18 February	Out of class assignment
6 (joint classes)		Out of class assignment	20 February	Out of class assignment

7	Papers due	Paper 5	25 February	Discuss papers and AAFS conference. Assign 5 paper field evaluation. Debate assignment & discussion of debate format
7	Assign Debate #1	Paper 6	27 February	Work on 5 paper field evaluation
8		Exam #2	4 March	PRESENT 5 paper field evaluation
8		Paper 7	6 March	4 page paper comparing scientific rigor of 1 field due. Assign Three fields.
9		Spring Break	11 March	Spring Break
9		Spring Break	13 March	Spring Break
10	Assign Debate #2	Debate #1	18 March	Debate #1
10		Paper 8	20 March	Discussion on research from Chapters 3/4
11 (joint classes)		Debate #2 (Tarone absent)	25 March	Debate #2
11	Assign Debate #3	Paper 9	27 March	Discussion on Chapter 5
12		Exam #3	1 April	Discussion on research from Chapter 5
12		Paper 10	3 April	Discussion on Chapter 10
13			8 April	Work on Debate #3
13	Assign Debate #4	Paper 11	10 April	Discussion on research from Chapter 10
14		Debate #3	15 April	Debate #3
14		Paper 12	17 April	Discussion on

				research from Chapter 11
15		Present Multi-discipline Comparison. 10 page compare and contrast paper due.	22 April	Present Multi-discipline Comparison. 10 page compare and contrast paper due.
15	Debate #4	Debate #4	24 April	Debate #4