

FRNSC 485 (001) FA19 Coalescence of Forensic Science Concepts
Meeting Date/Time: 302 Boucke Bldg on Tues & Thurs from 6:00 pm – 7:55 pm

Course Description

Brief course description: Advanced concepts in criminalistics as they apply to criminal and civil investigations.

Prerequisites: FRNSC 411, FRNSC 413, FRNSC 415W

Concurrent: FRNSC 421W, FRNSC 427W

Students who do not meet these prerequisites after being informed in writing by the instructor may be dis-enrolled during the first 10-day free add-drop period:

http://registrar.psu.edu/academic_calendar/fall19.cfm

If you have not completed the listed prerequisites, promptly consult with an instructor. Students who re-enroll after being dis-enrolled according to this policy are in violation of Item 15 in the Student Code of Conduct: <http://studentaffairs.psu.edu/conduct/codeofconduct/> .

Course changes: Please note that the specifics of this Course Syllabus can be changed at any time, and you will be responsible for abiding by any such changes. Changes will be posted to Canvas, announced in class, or sent via email.

Course management: CANVAS will be used extensively for communication and posting course material.

Required Textbooks: All textbooks used in Penn State Forensic Science program courses including, but not limited to, FRNSC 100, 210, 410, 411, 413, 415W, 421, and 427W

Suggested reading:

Chisum WJ, Turvey BE. Crime reconstruction. 2nd ed. Amsterdam: Elsevier Academic Press, 2011.

Committee on Identifying the Needs of the Forensic Science Community/National Research Council. Strengthening forensic science in the United States: a path forward. Washington, D.C.: National Academy of Sciences, 2009.

Horswell J, editor. The practice of crime scene investigation. London: Taylor & Francis, 2004.

Inman K, Rudin R. Principles and practice of criminalistics: the profession of forensic science. Boca Raton: CRC Press, 2001.

Additional Course Information:

Note: Syllabus is subject to change. Students will be notified in class or in Canvas.

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Course Instructors and Contact Information	
<p>Mr. Stewart Hung 329B Whitmore Laboratory Tel: 814-863-3387 email: sxh611@psu.edu</p>	<p>Office Hours: by appointment</p>
<p>Mr. Ralph R. Ristenbatt, III 325C Whitmore Laboratory Tel: 814-867-0503 email: rrr20@psu.edu</p>	<p>Office Hours: by appointment</p>
<p>Dr. Jack Hietpas 329A Whitmore Laboratory Tel: 814-863-5260 email: jzh333@psu.edu</p>	<p>Office Hours: by appointment</p>
<p>Dr. Mitchell Holland 014 Thomas Building Tel: 814-865-5286 email: mmh20@psu.edu</p>	<p>Office Hours: by appointment</p>
<p>Dr. Reena Roy 325B Whitmore Laboratory Tel: 814-867-2054 email: rxr34@psu.edu</p>	<p>Office Hours: by appointment</p>

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Learning Objectives and Outcomes

The primary goals of this course are to 1) finalize each student's education in criminalistics and forensic science through self-study, exercises (hands-on and problem sets), lectures, and examinations; 2) assess the criminalistics and forensic science knowledge, skills, and abilities of each student, and; 3) prepare each student to sit for the Forensic Science Assessment Test (FSAT) offered by the American Board of Criminalistics (ABC). Graduating students should possess the requisite skills to effectively manage the various types of physical evidence encountered at the crime scene and in the laboratory.

Students will be expected to build upon the knowledge and skills learned in previous courses. This course will emphasize and reinforce the importance of a holistic approach to the scientific investigation of crimes and other incidents. The integration of the different scientific disciplines is the foundation of the generalist philosophy in criminalistics, which forms the cornerstone of the American Board of Criminalistics certification process and upon which the FSAT is modeled. The significance of this strategy, when applied to the recognition, documentation, collection, control, and analysis of physical evidence from the scene to the courtroom, will be stressed.

Advanced concepts and problems will be explored throughout the course and critical, scientific thought processes will be underscored with case examples. The majority of the course will rely on the ability of each student to read and comprehend the assigned readings in advance of classroom lectures. Problem sets and examinations (written and/ or practical) will be utilized to assess progress throughout the course.

American Board of Criminalistics (ABC) Forensic Science Assessment Test (FSAT)

As outlined by the ABC*, a qualified student candidate must:

- Understand the major scientific principles behind forensic science analysis.
- Understand how to recognize, collect, secure, and preserve physical evidence.
- Understand how to perform physical, chemical, and/or biological analyses to locate and identify items having evidential value.
- Understand how to interpret and compare analytical data generated from the analyses of physical/chemical evidence and known exemplars.
- Understand how to recognize the potential for forensic examinations in areas outside an area of specialization, prioritize the sequence of examinations, and handle evidence accordingly.
- Evaluate the appropriateness and/or the appropriate method of securing samples.
- Understand the use of laboratory instrumentation.
- Observe safe practices to ensure the safety of analysts.
- Understand legal processes including courtroom testimony, relevant legal decisions and concepts.
- Recognize and employ quality assurance measures to ensure the integrity of the analyses.
- Understand the importance of impartial and ethical work practices.

*ABC FSAT Study Guide v1.1 January 2014 (accessed 05JAN2016)

http://www.criminalistics.com/uploads/3/2/3/3/32334973/fsat_study_guide_v1_1.pdf

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It is strongly recommended that the ABC recommended FSAT references are reviewed prior to the examination.

FSAT references:

Crime Scene

- Fisher BAJ. Techniques of crime scene investigation. 7th ed. Boca Raton: CRC Press, 2004.

Criminalistics and Forensic Science

- Houck M, Siegel J. Fundamentals of forensic science. Burlington, MA: Elsevier Academic Press, 2006.
- Saferstein R. Criminalistics: an introduction to forensic science. 7th ed. (or higher). Upper Saddle River, NJ: Prentice Hall, 2007.
- Saferstein R, editor. Forensic science handbook, volume I. 2nd ed. Englewood Cliffs, NJ: Prentice Hall, 2002.
- Saferstein R, editor. Forensic science handbook, volume II. 2nd ed. Englewood Cliffs, NJ: Prentice Hall, 2005.
- Saferstein R, editor. Forensic science handbook, volume III. Englewood Cliffs, NJ: Prentice Hall, 1993.

Forensic Chemistry

- Bell S. Forensic chemistry. Upper Saddle River, NJ: Pearson Prentice Hall, 2006.

Forensic DNA

- Butler J. Forensic DNA typing. San Diego, CA: Academic Press, 2001.

Professional Conduct and Ethics

- American Board of Criminalistics. Rules of professional conduct.
http://www.criminalistics.com/uploads/3/2/3/3/32334973/form_09-0001f_abc_rules_of_professional_conduct.pdf

Point and Grading Structure

<p>Résumé (first draft), 10 points Résumé (final draft) and LinkedIn.com profile, 30 points Job posting analysis, 30 points Simulation - Job Interview, 80 points Group Presentation (non-biological), 150 points Group Presentation (biological), 150 points Proficiency Test – Report, 250 points Comprehensive Oral Examination, 200 points Total = 900 points</p>	<p>Letter grades: 93 % to 100 % = A 90 % to < 93 % = A- 87 % to < 90 % = B+ 83 % to < 87 % = B 80 % to < 83 % = B- 77 % to < 80 % = C+ 70 % to < 77 % = C 60 % to < 70 % = D 0 % to < 60 % = F</p>
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- No scaling or grade curving will be performed on any of the earned points/grades for all of the graded material in this course.
- Any discrepancies or ambiguity in any of the graded material should be brought to the Instructor(s) attention in writing (e.g., email) as soon as possible.

Late Assignment and Quiz/Exam Make-up Policy:

- Only documented cases of hardship, emergency, illnesses, etc. will be considered for late assignment submissions or quiz/exam make-up.
- Late assignments after the due date/time will receive an immediate 50% deduction from the maximum point score before assignment grading. Assignments received over 24 hours after the due date/time will not receive any credit.

Additional comments:

Personal hardship. Life events happen. The instructor can discuss options to assist the student in completing the course, or if need be, to drop the course.

Make-up Quizzes. If a student has a scheduling conflict with the date and time of the quiz, the student is responsible for letting the Instructor know that she/he cannot be there for the quiz with as much notice as possible (at least a week, preferably). If the student does not inform the Instructor, no make-up quiz will be offered. NOTE: Please see Exceptions and Unforeseen Circumstances.

Policy on Late Assignments. An assignment that is handed in after the due date/time posted on Canvas or announced in class, whichever one is the more recent, there will be a 50% deduction from the max points for the first 24 hours in which the assignment is late. Assignments submitted more than 24 hours after the due date/time will not receive any credit. NOTE: Please see Exceptions and Unforeseen Circumstances. NOTE: Please be aware that some specific assignments will be clearly identified as NO LATE assignments will be accepted and they must be submitted before or on the due date/time.

Rubrics. Each of the assignments, laboratories, papers, etc. will have their own set of rubrics. Please check the respective assignment sheet for the details on each of them.

Independent Effort. ALL of the homework assignments, papers, laboratory assignments, quizzes are to be completed by the student independent of their current classmates and colleagues. Students are encouraged to seek out all types of resources available to them (including electronic ones) with the exception of their current classmates and any student who has taken FRNSC 485 in previous course offerings.

Group Projects. Only the assignments and projects that have been specifically indicated by the Instructor(s) as group/team effort can be performed with your colleagues.

Exceptions and Unforeseen Circumstances. If a student has a medical or personal emergency, the appropriate documentation required by Penn State Policy (See Course Policies – Attendance below) must be provided and alternate arrangements could be made to help the student complete the assignments, quizzes, laboratories, etc. If there is a weather event or other campus emergency that

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prevents the scheduled events from being completed on time, then the Instructor will announce the new dates/times when it is feasible to determine a new date/time.

Attendance and Participation

If you need to request an exception due to a personal or medical emergency, contact the instructor directly as soon as you are able. Such requests will be considered on a case by case basis.

This course abides by the Penn State Class Attendance Policy 42-27:

<http://senate.psu.edu/policies/42-00.html#42-27>, Attendance Policy E-11:

<http://www.psu.edu/oue/aappm/E-11.html>, and Conflict Exam Policy 44-35:

<http://www.psu.edu/ufs/policies/44-00.html#44-35>. Please also see Illness Verification Policy:

<http://studentaffairs.psu.edu/health/welcome/illnessVerification/>, and Religious Observance Policy:

<http://www.psu.edu/oue/aappm/R-4.html>. Students who miss class for legitimate reasons will be given a reasonable opportunity to make up missed work, including exams and quizzes. Students are not required to secure the signature of medical personnel in the case of illness or injury and should use their best judgment on whether they are well enough to attend class or not; the University Health Center will not provide medical verification for minor illnesses or injuries. Other legitimate reasons for missing class include religious observance, family emergencies, and regularly scheduled university-approved curricular or extracurricular activities. Students who encounter serious family, health, or personal situations that result in extended absences should contact the Office of Student and Family Services for help: <http://studentaffairs.psu.edu/familyservices>. Whenever possible, students participating in University-approved activities should submit to the instructor a Class Absence Form available from the Registrar's Office: http://www.registrar.psu.edu/student_forms, at least one week prior to the activity. (Note: This form is currently only available online as a PDF).

Campus emergencies, including weather delays, are announced on Penn State Live

(<http://news.psu.edu>) and communicated to cellphones, email, the Penn State Facebook page, and Twitter via PSUAlert (to sign up, please see <https://psualert.psu.edu/psualert/>).

Academic Integrity Policy

All Penn State policies regarding ethics and honorable behavior apply to this course. Academic integrity is the pursuit of scholarly activity free from fraud and deception and is an educational objective of this institution. All University policies regarding academic integrity apply to this course. Academic dishonesty includes, but is not limited to, cheating, plagiarizing, fabricating of information or citations, facilitating acts of academic dishonesty by others, having unauthorized possession of examinations, submitting work of another person or work previously used without informing the instructor, or tampering with the academic work of other students.

For any material or ideas obtained from other sources, such as the text or things you see on the web, in the library, etc., a source reference must be given. Direct quotes from any source must be identified as such.

Students in this class are expected to write up their assignment or reports individually, to work the exams on their own, and to write their papers in their own words using proper citations. Class

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members may work on the assignments in groups, but then each student must write up the answers separately. Students are not to copy problem or exam answers from another person's paper and present them as their own; students may not plagiarize text from papers or websites written by others. Students who present other people's work as their own will receive at least a 0 on the assignment and may well receive an F or XF in the course.

All exam answers must be your own, and you must not provide any assistance to other students during exams. Any instances of academic dishonesty WILL be pursued under the University and [Eberly College of Science regulations](#) concerning academic integrity. For more information on academic integrity, see [Penn State's statement on plagiarism and academic dishonesty](#).

[The Eberly College of Science Code of Mutual Respect and Cooperation](#) embodies the values that we hope our faculty, staff, and students possess and will endorse to make The Eberly College of Science a place where every individual feels respected and valued, as well as challenged and rewarded.

Plagiarism is the practice of taking someone else's work or ideas and presenting them as your own. You are advised to look up the definition of and descriptions of different forms of plagiarism.

Plagiarism will not be tolerated! The **first offense** will result, at a minimum, in a **grade of zero** on the assignment **and filing of an Academic Integrity Form which will be forwarded to the Associate Dean's Office**. If a policy of dropping the lowest grade is implemented during the semester, you will not receive the benefit of this policy and you will have all grades count toward your final grade, including the zero on the plagiarized material. The **second offense** of plagiarism will result in a **grade of "F" in the course and referral to the Committee on Academic Integrity where further action may be taken**. If you need help determining the correct way to paraphrase another work without committing plagiarism, ask myself or another knowledgeable mentor.

(text courtesy of Dr. Greg Broussard)

In this course, the Penn State edition of TurnItIn Feedback Studio (integrated with Canvas) will be used by the instructor, TAs, and students as a method of checking for plagiarism and to monitor the instances of both unintentional and intentional instances of plagiarism.

What is TurnItIn?

Turnitin is a web-based writing assessment toolkit which allows instructors to provide feedback to students through markup tools, rubrics, proofing tools and originality reports to detect plagiarism. Turnitin also provides peer review options. (from: <http://turnitin.psu.edu/>)

Links:

What is plagiarism? [Theodore W. Frick, Professor Emeritus](#)
Penn State Student Affairs [Office of Student Conduct](#)

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PSU Code of Conduct, ECoS Code of Mutual Respect

Excerpt from the [PSU Code of Conduct](#):

The Office of Student Conduct strives to deliver a student discipline process that is equitable, just, educational, effective and expeditious; and to provide a system that promotes student growth through individual responsibility and in which the success of its educational endeavors is characterized by increased civility.

The Office of Student Conduct supports the University's educational mission by promoting a safe, orderly and positive University climate through enforcing behavioral standards, enacting and facilitating intervention efforts, managing disciplinary proceedings, mentoring students, developing leadership, delivering informational programming and fostering peer education. We hope to create a University culture that is self-disciplined, where civility is embraced, and the norms and foundational beliefs validate the essential values of Penn State University, namely

- personal and academic integrity;
- respect for the dignity of all persons and a willingness to learn from the differences in people, ideas, and opinions;
- respect for the rights, property and safety of others; and
- concern for others and their feelings and their need for conditions that support an environment where they can work, grow and succeed at Penn State.

[ECoS Code of Mutual Respect and Cooperation](#):

The [Code of Mutual Respect and Cooperation](#) was developed to embody the values that we hope our faculty, staff, and students possess, consistent with the aspirational goals expressed in the Penn State Principles. The University is strongly committed to freedom of expression, and consequently, the Code does not constitute University or College policy, and is not intended to interfere in any way with an individual's academic or personal freedoms. We hope, however, that individuals will voluntarily endorse the 12 principles set forth in the Code, thereby helping us make the Eberly College of Science a place where every individual feels respected and valued, as well as challenged and rewarded.

Student Disability Resources (SDR)

Penn State welcomes students with disabilities into the University's educational programs. Every Penn State campus has an office for students with disabilities. The Office for Disability Services (ODS) Web site provides contact information for every Penn State campus: <http://equity.psu.edu/student-disability-resources>. For further information, please visit the Office for Disability Services Web site.

In order to receive consideration for reasonable accommodations, you must contact the appropriate disability services office at the campus where you are officially enrolled, participate in an intake interview, and provide documentation <http://equity.psu.edu/student-disability-resources/applying-for-services>. If the documentation supports your request for reasonable accommodations, your campus's disability services office will provide you with an accommodation letter. Please share this letter with your instructors and discuss the accommodations with them as early in your courses as possible. You must follow this process for every semester that you request accommodations.

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Counseling and Psychological Services (CAPS)

Many students at Penn State face personal challenges or have psychological needs that may interfere with their academic progress, social development, or emotional wellbeing. The university offers a variety of confidential services to help you through difficult times, including individual and group counseling, crisis intervention, consultations, online chats, and mental health screenings. These services are provided by staff who welcome all students and embrace a philosophy respectful of clients' cultural and religious backgrounds, and sensitive to differences in race, ability, gender identity and sexual orientation.

Counseling and Psychological Services at University Park (CAPS)
(<http://studentaffairs.psu.edu/counseling/>): 814-863-0395

Counseling and Psychological Services at Commonwealth Campuses
(<http://senate.psu.edu/faculty/counseling-services-at-commonwealth-campuses>)

Penn State Crisis Line (24 hours/7 days/week): 877-229-6400
Crisis Text Line (24 hours/7 days/week): Text LIONS to 741741

Nondiscrimination Statement

The Pennsylvania State University is committed to equal access to programs, facilities, admission and employment for all persons. It is the policy of the University to maintain an environment free of harassment and free of discrimination against any person because of age, race, color, ancestry, national origin, religion, creed, service in the uniformed services (as defined in state and federal law), veteran status, sex, sexual orientation, marital or family status, pregnancy, pregnancy-related conditions, physical or mental disability, gender, perceived gender, gender identity, genetic information or political ideas. Discriminatory conduct and harassment, as well as sexual misconduct and relationship violence, violates the dignity of individuals, impedes the realization of the University's educational mission, and will not be tolerated.

Direct all inquiries regarding the nondiscrimination policy to:

Affirmative Action Office
The Pennsylvania State University
328 Boucke Building
University Park, PA 16802-5901
Email: kfl2@psu.edu
Tel (814) 863-0471

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Diversity Statement

The instructor considers this classroom to be a place where you will be treated with respect. All members of this class are expected to contribute to a respectful, welcoming and inclusive environment for every other member of the class. Penn State is “committed to creating an educational environment which is free from intolerance directed toward individuals or groups and strives to create and maintain an environment that fosters respect for others” as stated in [Policy AD29 Statement on Intolerance](#).

Mandated Reporting Statement

Penn State’s policies require me, as a faculty member, to share information about incidents of sex-based discrimination and harassment (discrimination, harassment, sexual harassment, sexual misconduct, dating violence, domestic violence, stalking, and retaliation) with Penn State’s Title IX coordinator or deputy coordinators, regardless of whether the incidents are stated to me in person or shared by students as part of their coursework. For more information regarding the University's policies and procedures for responding to reports of sexual or gender-based harassment or misconduct, please visit <http://titleix.psu.edu>. Additionally, I am required to make a report on any reasonable suspicion of child abuse in accordance with the [Pennsylvania Child Protective Services Law](#).

Safer People Safer Places Member Statement

I am a member of the Penn State Safer People Safer Places Network, and am available to listen and support you in a safe and private manner. As a network member, I can help you connect with resources on campus to address problems you may face that interfere with your academic and social success on campus as it relates to issues surrounding sexual and gender diversity. My goal is to help you be successful and to maintain a safe and equitable campus.

For more information, visit the Penn State LGBTQA Student Resource Center in 101 Boucke Building or at:

studentaffairs.psu.edu/lgbtqa

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Penn State Learning

Penn State Learning is a multi-disciplinary academic assistance program that is staffed by peer tutors who are themselves undergraduates, by scholars in residence who are content experts in their respective fields, and by professional and administrative staff members.

Penn State Learning supports individual and group tutoring, learning community development, and collaborative projects with academic departments to assess learning and improve academic assistance resources for undergraduates. See links below for more details.

<http://pennstatelearning.psu.edu/>

Course Calendar, Meeting Times, and Communication

This class will use Canvas to keep track of calendar meeting times and places and the topics for each class. Please note that the meetings can change due to unforeseen circumstances. Communication of these changes will take place using your Penn State email address through Canvas.

NOTE: The topics may change slightly in order to meet the Learning Outcomes.

Assignments and Due Dates

The assignments and due dates can be found on the Assignments and Due Dates sheet.

Links to Resources and Penn State Programs

Academic Calendar

http://www.registrar.psu.edu/academic_calendar/calendar_index.cfm

Penn State Forensic Science Program

<http://forensics.psu.edu/>

Penn State Academic Advising Portal

<http://advising.psu.edu/>

Eberly College of Science Advising and Academic Assistance

<https://science.psu.edu/current-students/support-network>

The Center for Excellence in Science Education

<http://cese.science.psu.edu/>

LionPath

<https://www.lionpath.psu.edu>

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University Bulletin

<http://bulletins.psu.edu/bulletins/bluebook/>

Office of Science Engagement

<https://scienceengagement.psu.edu/>

Course Calendar (subject to revision)

Please refer to the document in Canvas LMS