

FRSC 695-102 (6349): Special Topics in Forensic Science (Lecture) (3)
Post-Blast Investigative Techniques

Meeting Times: January 26, 2026 – May 19, 2026

Instructor: Kelly M. Elkins, Ph.D.

Meeting location and time: SC 3323 Tuesdays 8:00 – 10:45 am

Office Hours: Monday and Wednesday 9:30-11:00 am or by appointment

Office: SC 4301D, E-mail: kmelkins@towson.edu Tel: 410-704-6217 (office)

Catalog Description:

In-depth study in a selected area pertaining to forensic science. Can be taken up to four times for a total of 12 units provided a different topic is taken each time.

This course will follow the model curriculum of the US Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) and covers types of explosives including primary and secondary explosives, crime scene procedures, laboratory procedures, chemical and physical components, and a mock case.

The CIPBI certification is to specify the minimum critical competencies for service as a Certified Post Blast Investigator (CIPBI) within the International Association of Bomb Technicians and Investigators (IABTI). **No certification is earned by this course.** To earn certification, refer to the requirements.

https://www.iabti.org/images/cipbi_requirements_to_test.pdf

Textbook

Technical Working Group for Bombing Scene Investigation, [A Guide for Explosion and Bombing Scene Investigation](#), Washington, D.C.: U.S. Department of Justice, Office of Justice Programs, 2000.

Link: <https://www.ojp.gov/pdffiles1/nij/181869.pdf>

IMPORTANT NOTE: Students who fail to appear for the first two class sessions, or the first session of evening classes, may forfeit their space in class. Instructors have the right to release these spaces to other students wishing to add the class to their schedules. Students who lose their space must officially withdraw from the course through Enrollment Services to avoid earning an FX grade for non-attendance.

Important Dates

Feb 5th – Change of schedule ends. Last day to drop a course with no grade posted to academic record.

Last day to add.

March 16-20- Spring Break: University Open (Mar. 16-19) University Closed (Friday, Mar. 20)

April 6: Last day to withdraw from full semester courses with a grade of "W." Last day to change to Pass or Audit grading Option.

Final exam week: May 13-19, 2026; final presentation

Course repeat policy

Students may not repeat a course more than once without prior permission of the Academic Standards Committee.

Assignments and Grade Points (100 points total)

Three one-page summary reflections on Webinars/Seminars/Lectures (5 points each)

Field experience certificate from ATF (10 points)

Research Review-style Paper on a topic related to the topic of advances and research in post-blast investigation 15-20 pages, due one week before final presentation, (3500-4000 words) (60 points)

Final presentation – 15-30 min final presentation on paper topic (15 points)

Resources

FBI Post-Blast Investigation Training Video

<https://youtu.be/8y8QcSCWh8g?si=o8Vgg26MPNy-eNQ4>

Binders: ATF Systematic Analysis of Low Explosives, Smokeless Powders, FBI Post-Blast Investigator School

Bombings: Injury Patterns and Care

<https://www.acep.org/siteassets/uploads/uploaded-files/acep/clinical-and-practice-management/ems-and-disaster-preparedness/disaster-preparedness-grant-projects/cdc---blast-injury/bombings3h.ppt>

Rana LS. Explosives and post-blast analysis: its significance in police investigation. Lecture

<https://www.youtube.com/live/dsr5tsngvUM?si=GQIXzqu-p2f0slhp>

Explosions slides

<https://www.fsi.illinois.edu/content/courses/programs/investigation/files/pdfs/FIPP%20PPT%20Ch%2019%20Explosions.pdf>

Picciotti M. Investigation of explosive crime scene. Lecture

https://youtu.be/uU4kb-3oO1U?si=a9ucxWbPEA_vxWFR

Bomb incident investigation slides

https://www.wbja.nic.in/wbja_adm/files/Presentation%20about%20investigation%20relating%20to%20explosive%20and%20explosions.ppt

Seminar/Webinar on IED Identification and Post-Blast Investigation

<https://youtu.be/HKrYPtLB4I8?si=sNd6evtdqmmG8dSo>

Webinar Bombing Prevention Resources for Mitigating Use of Explosives & IEDs Against Critical Infrastructure

<https://www.youtube.com/watch?v=KjttMOMSbIs>

Forensic analysis of explosives

https://ethz.ch/content/dam/ethz/special-interest/chab/organic-chemistry/zenobi-group-dam/documents/Education/LecturesExercises/Analytical%20Strategy%202014/HS2015/031115-Presentation_Explosives.pdf

Grading Metrics

- Papers will be evaluated for professional prose, format, use and proper citation of cited information, logic, clarity, accepted conventions of grammar, spelling, punctuation, word choice, and style, flow, connections, and correctly citing sources using *JFS* author standard format. Each spelling and grammar infraction is a 1-point deduction. Requests for regrading must be submitted within a week of receiving the assignment or assessment grade or before the end of the course.
- Failure to cite sources may lead to failure of the assignment or course in accordance with TU policy.
- Missing thesis statements, arguments, content, supporting information or sources (as directed), and/or inadequate word count will result in a 5% of the assignment penalty per infraction.
- Each incorrect item will be marked and deductions computed as above will be totaled for your assignment grade.
- Papers must have 10 peer-reviewed journal source citations. A 2% deduction will be assessed for each missing source per paper.
- Assignments will be graded on Blackboard.

Graduate Grading Scale (Percent):

A	93-100
A-	90-92.9
B+	87-89.9
B	80-86.9
C	70-79.9
F	Below 70

Cell Phones and Pagers

Cell phone usage in the class meeting times is strictly prohibited. If you need to take a call in case of emergency (e.g., call from home, doctor, etc.), exit the room to the adjacent hallway.

Every student needs to have an international plan on their phone and be reachable outside of class time including using the GroupMe app.

Chemistry Department Statement on Classroom Diversity and Inclusion

The students, faculty, and staff at Towson University represent a diverse and vibrant community of learners and scholars. As a community, we value the unique contributions of each individual and promote active participation in all aspects of the learning process by each community member. Your instructor supports Towson University's goal of fostering a diverse and inclusive educational setting. Your instructor strives to create an educational environment built upon the principles of mutual respect and support. Toward this end, all members participating in this course are expected to demonstrate respect for all other members of the class, both within and outside of the classroom. If you feel these expectations have not been met, please speak with your instructor or the designated diversity liaison, Dr. Cindy Zeller (czeller@towson.edu).

For further information regarding the diversity and inclusion policies of Towson University, please see Towson University's Office of Inclusion and Institutional Equity, the Fisher College of Science and Mathematics Diversity Action Plan, and the Chemistry Department Diversity Action Plan.

Accessibility & Disability Services

This course is in compliance with Towson University policies for students with disabilities. Students with disabilities are encouraged to register with Accessibility & Disability Services (ADS), first floor of the University Union, Suite 146, 410-704-2638 (Voice) or 410-704-4423 (TDD). Students who suspect that they have a disability but do not have documentation are encouraged to contact ADS for advice on how to obtain appropriate evaluation. A memo from ADS authorizing your accommodation is needed before any accommodation can be made.

<https://www.towson.edu/accessibility-disability-services/>

ChatGPT, Open AI and Internet Resources

As we begin the semester, I want to remind you of the importance of academic integrity. Part of what you learn here at Towson University is how to do your work authentically and honorably, and I am here to help you do that. In my course, you will be given assignments and I will provide you with specific instructions about how to complete them. Sometimes the instructions will tell you to do the work entirely on your own without consulting other people or material, including the internet. At other times, you may be asked to work together or to use certain technology tools. If you are ever uncertain about how you should work on an assignment, please contact me.

Student Academic Integrity Policy (TU 03.01.00)

The Towson University Code of Conduct prohibits "all forms of dishonesty including cheating (and) plagiarism." Plagiarism is copying the words of another or the use of ideas of another without proper citation. Plagiarism can result from copying an entire document to inappropriate paraphrasing. In order to avoid plagiarism, the use of words or ideas of another without proper citation, it is imperative to consciously think about what you have read and what you are trying to write. In scientific literature, we do not normally use direct quotes from the primary resources that we are using to gather our information. It is important to paraphrase the ideas and conclusions obtained from the primary literature and rewrite them in your own words. One method to assure that you will not plagiarize is to take notes on each of your primary resources and then write the paper based on your notes, not

from the references. Your paper will summarize the works of others, not directly quote from them. If you have any questions about plagiarism and correct citations see <http://cooklibrary.towson.edu/help-guides/tags/plagiarism> for further examples and methods to correct the problems. The consequences of cheating or plagiarism will be a failing grade of 0 points for the assignment and may result in failure of the course. Plagiarism, fabrication, falsification, cheating, complicity in academic dishonesty, abuse of academic materials, multiple submissions of the same work or part thereof for multiple courses/assignments, will not be tolerated and will result in a failing grade of 0 for that assignment and may result in failure of the course.

All types of Academic Integrity Violations are deplorable and will be dealt with accordingly. Please read and familiarize yourself with the University Academic Integrity Policy, found at the link below. Plagiarism, obtaining aid from or giving aid to another student as well as obtaining aid through electronic devices or notes constitutes cheating and will result in failure of the course. Multiple submissions may violate the policy; consult the instructor with questions. <https://www.towson.edu/about/administration/policies/03-01-00-student-academic-integrity-policy.html>

Title IX Safe Learning Environment

Towson University (TU) is committed to ensuring a safe, productive learning environment on our campus that does not tolerate sexual misconduct, including harassment, stalking, sexual assault, sexual exploitation, or intimate partner violence [Policy 06.01.60]. It is important for you to know that there are resources available if you or someone you know needs assistance. You may speak to a member of university administration, faculty, or staff, but keep in mind that they have an obligation to report the incident to the Title IX Coordinator. It is a goal that you feel able to share information related to your life experiences in classroom discussions and in one-on-one meetings. However, it is required to share information with the Title IX Coordinator regarding disclosures, but know that the information will be kept private to the greatest extent possible. If you want to speak to someone who is permitted to keep your disclosure confidential, please seek assistance from the TU Counseling Center 410-704-2512 to schedule an appointment, and locally within the community at TurnAround, Inc., 443-279-0379 (24-hour hotline) or 410-377-8111 to schedule an appointment. <http://towson.edu/titleix>

Reporting Hate Crimes and Bias Incidents

Towson University prohibits all students, staff, and faculty from committing or engaging in any hate crimes as defined under state and federal law, or any acts of bias, hate, or prejudice exhibited in conduct that is in violation of another University policy on campus, on University property, at University sponsored events, or when engaged in University activities and business on or off campus. The University must receive notice to respond effectively to alleged Hate Crimes or Bias Incidents in the University Community. Please report or file a complaint of a Hate Crime or Bias Incident in the following ways:

- Report to University Police: Towson University's Police Department ("TUPD") will determine if incidents are criminal in nature. In cases of hate crimes, individuals can be punished with fines and/or imprisonment. Felony offenses demonstrated to be motivated by bias are subject to enhanced penalties.

- Contact the Office of Inclusion & Institutional Equity: Online at: <https://towson.edu/notattu>, email at: OIIE@towson.edu, telephone, in person or via regular mail.

<https://www.towson.edu/about/administration/policies/06-01-20-policy-procedures-reporting-hate-crimes-bias-incidents.html>

TU Counseling Center

We all experience emotional distress and personal difficulties as a normal part of life. As your instructor, I am not qualified to serve as your counselor. However, The Towson University Counseling Center (TUCC) provides free and confidential mental health services that are not connected to your academic record in any way. If you are experiencing mental health challenges, I strongly encourage you to take advantage of TUCC's services. For more information about TUCC, please visit their website at <https://www.towson.edu/counseling>. To make a same day appointment or for after-hours crisis assistance, please call 410-704-2512.

In Case of Emergency

In the event of a University-wide emergency course requirements deadlines and grading schemes are subject to changes that may include alternative delivery methods, alternative methods of interaction with the instructor, class materials, and/or classmates, a revised attendance policy, and a revised semester calendar and/or grading scheme. In the case of a University-wide emergency, please refer to the following about changes in this course:

1. Web Site: www.towson.edu
2. Telephone Number(s)
3. TU Text Alert System: This is a service designed to alert the Towson University community via text messages to cell phones when situations arise on campus that affect the ability of the campus to function normally.
Sign up: <https://www.towson.edu/publicsafety/notification/>

Towson Police can be reached at: +1 401-704-4444