

Tiffin University Forensic Science Academy Agenda Monday, June 21



Day	Time	Topic	Experiment/Assignment Overview	Location
Mon., June 21	8 - 8:30 a.m.	Arrival / Check-in		Craycraft
	8:30 - 9:30 a.m.	Info session: Types of forensic evidence	Kahoot	Osceola
	9:45 - 10:45 a.m.	Crime scene analysis	Students will view a crime scene at the Crime Scene Lab. Students will be tasked with identifying different evidence they can both view and smell.	Crime Scene Lab
	11 a.m. - 12:30 p.m.	Blood splatter	A trajectory is the path taken as a projectile moves through the air under the effects of gravity and air resistance only. In forensics, this "projectile" may be a bullet, a blood droplet, a thrown rock, or even a person. Students will study the underlying physics and mathematics of these projectiles and then utilize their knowledge in a lab activity on blood spatter analysis.	Calvert Lab/Chem Lab Room #226
	12:30 - 1 p.m.	Boxed Lunch		
	1 - 3 p.m.	Seneca County Common Pleas Court	Students will witness arraignments in Seneca County Common Pleas Court. They will also meet with Judge Shuff following the experience to review and explain each arraignment witnessed.	Seneca County Common Pleas Court
	3:30 - 5 p.m.	Forensic anthropology / Skeleton	Forensic anthropology, identifying human remains in a mass grave-determining age, race and gender from dozens of real human skulls.	Calvert Lab/Chem Lab Room #226
	5:30 - 6:15 p.m.	Dinner / Fire forensics overview	Fire scene assignment data	Osceola
	6:30 - 8 p.m.	State Fire Marshal presentation	Fire Marshal - Real case studies	Osceola
	Homework	Homework assignment		Osceola

Tiffin University

Forensic Science Academy Agenda, Tuesday, June 22



Day	Time	Topic	Experiment/Assignment Overview	Location
Tues, June 22	8 - 8:45 a.m.	Breakfast, day's events review, homework review		Osceola
	9:00-10:30	DNA		Calvert Lab/Chem Lab Room #226
	10:30-11:45	Ballistics	A trajectory is the path taken as a projectile moves through the air under the effects of gravity and air resistance only. In forensics, this "projectile" may be a bullet, a blood droplet, a thrown rock, or even a person. Students will study the underlying physics and mathematics of these projectiles and then utilize their knowledge in a lab activity on blood spatter analysis.	Calvert Lab/Chem Lab Room #226
	Noon - 1 p.m.	Lunch event	Boston Marathon Bomb FBI Agent	Osceola
	1:15 - 2:30pm	Period table chemistry / Chemistry and explosives	Balancing reactions assignment. Students will determine which group of elements explode on contact and those that do not. They will create and balance reactions to determine the most powerful explosive and calculate the force/shock wave. They will discuss and watch a demonstration of high-energy chemistry, and learn about body armor or hardened locations, fracture patterns and their analysis. There will be an in depth analysis of the Oklahoma City bombing, Boston Marathon bombing, 2020 Beirut explosion, 1993 New York Trade Center bombing, calculation of force/shock wave and what didn't bring down the Trade Center Towers in 2001. Students will also create their own mini explosive.	Calvert Lab/Chem Lab Room #226
	2:45 - 5 p.m.	Explosives at Paradiso	Gunpowder/bottle rockets lab. Students will calculate force/shock wave and discuss and watch a demonstration of high-energy chemistry. There will be an introduction to body armor or hardened locations, fracture patterns and their analysis, or identification and analysis.	Paradiso
	5 - 6 p.m.	Dinner		Osceola
	6 - 8 p.m.	Dinner event/JFK Assassination	JFK assassination analysis and assassination shot sequence contest. The annual Kennedy Assassination Shot Sequence Contest is a group competition in which students will evaluate the evidence in the killing of the 35th President and determine a working theory of how this tragic event unfolded. As the evidence in the case suggests, only three shots were fired at the presidential motorcade in Dallas, Texas that day; however, significant damage was done in and around the motorcade. Students will account for the damage using critical, creative and analytical thinking skills. Almost 60 years later, conspiracy theories surrounding the Kennedy assassination abound. However, future forensic scientists and criminalists must push past these unsubstantiated theories and root themselves only in rational evidence when evaluating this, or any, criminal case. This contest trains students to leverage their skills in evidence evaluation in order to arrive at rational, scientific conclusions.	Osceola
Homework	Homework assignment	Assassinations	Osceola	

Tiffin University Forensic Science Academy Agenda Wednesday, June 23



Day	Time	Topic	Experiment/Assignment Overview	Location
Wed., June 23	8 - 8:45 am.	Breakfast, day's events review, homework review		Osceola
	9 - 9:30 a.m.	Autopsies	Celebrity deaths. Students will examine famous deaths of celebrities like John Lennon, Sharon Tate, JonBenet Ramsey, Notorious B.I.G and others to discuss evidence and other concepts they've learned during the week.	Osceola
	9:30 - 10:15 a.m.	Autopsies	Celebrity autopsies. Uncover details of some high-profile celebrity autopsies. Discover how forensics played a role in discovering some of the controversial cases.	
	10:30 - 11:45 a.m.	Trip to University Toledo Gross Anatomy Lab	Trip to University of Toledo Gross Anatomy lab	Bus
	Noon - 5 p.m.	Gross Anatomy Lab / Autopsy	Tour of the Gross Anatomy Lab/autopsy/craniotomy. Students will learn about autopsies, causes, manners and mechanisms of death, as well as see real photos from a major city's Medical Examiner.	University of Toledo
	5 - 6 p.m.	Leave for to go back to TU/Port-mortem discussion and types of evidence	Discussion of the autopsies experience.	Bus
	6:30 - 8:30 p.m.	Dinner	Recreation of a celebrity death	Osceola
	Homework	Diorama explanation	Diorama. Explanation of evidence tied to the diorama. Explain why they created it the way that they did with evidence identified.	

Tiffin University Forensic Science Academy Agenda Thursday, June 24



Day	Time	Topic	Experiment/Assignment Overview	Location
Thur., June 24	8 - 8:45 a.m.	Breakfast, day's events review, homework review, presentation of diorama		Osceola
	9 - 10:15 a.m.	Crime scene investigation	Crime scene investigation	Crime Scene lab
	10:30 - 11:15 a.m.	Evidence processing/DNA	Students will learn evidence collection techniques for a variety of types of evidence: photography, biological materials (blood, hair, finger prints), chemicals, trace and pattern evidence. Students will learn chain of evidence rules for transport of evidence to laboratories.	Crime Scene lab
	11:30 a.m. - 1 p.m.	Lunch event/writing police reports	Writing police reports is unlike any other kind of writing students may have done in the past. Students will learn what elements to focus on and how to create clear, efficient reports by showing, not telling. Continuation of OA assignment.	Osceola
	1:15 - 3 p.m.	Digital forensics	Digital forensics is an invigorating area, that is glamorized in television shows such as NCIS, CSI and others. The science of digital forensics has a limitless future, as the field will continue to expand because new types of digital data are created everyday by more people and more devices coming online. Digital forensics did in fact begin outside the conventional methods of forensic science, however it is now fully absorbed and recognized as a part of forensic science.	Hertzer #112
	3:15 - 3:45 p.m.	Careers in forensic science		Osceola
	4 - 5 pm.	Awards ceremony / students leave for home		Marion