

FORENSIC SCIENCE AND ANTHROPOLOGY FIELD SCHOOL

The Ohio State University Department of Anthropology
and
PAST Innovation Lab

Program Description

The Forensic Science and Anthropology Field School is an intensive, three to four-week course taking place during Maymester. Students meet each weekday from 8:00 to 5:00 and participate in, from the perspective of multiple disciplines, the resolution of a mock medicolegal death investigation from crime scene discovery to courtroom testimony. Students process an indoor crime scene where foul play is suspected to have happened. Evidence then leads them to an outdoor scene where they search for and recover buried human remains. Back in the lab, they examine evidence from both scenes and attempt to identify individuals by analyzing skeletal remains and matching them against missing person files. Participants synthesize multiple lines of evidence to reconstruct what occurred at the crime scenes. Finally, students testify as a scientific expert witness in a real courtroom in front of an actual judge under direct and cross-examination by practicing attorneys. Throughout the process, students receive hands-on training in the classroom, lab, and field by law enforcement agents, legal professionals, and forensic scientists. The field school is divided into a number of learning modules that cover topics such as the legal system, crime scene investigation, crime scene photography, photogrammetry, blood spatter analysis, fingerprint analysis, ballistics, trace evidence, osteology, thermal trauma, odontology, entomology, archeology, facial reconstruction, and expert witness testimony. Most of the program takes place at multiple sites on Ohio State's main campus with field trips to the state crime lab in London, OH, the county coroner's office, and the county courthouse.

Upon completion of this course students are able to employ the scientific method to answer questions related to crime scene reconstruction and individual identification, distinguish between forensic science as portrayed in popular media versus the reality of forensic science as practiced by professionals, develop interpersonal professional and public presentation skills, and appreciate the important role of an Anthropologist in medicolegal death investigations.

Partners. The program was born out of a partnership between The Ohio State University Department of Anthropology and the PAST Innovation Lab (<https://pastinnovationlab.org/>). It was beta-tested at Nebraska Wesleyan University in 2006 and has been run at The Ohio State University since 2007. PAST provides logistical, programming, marketing, publishing, and web support surrounding teaching and problem-based learning programs.

We have reached out to local and regional partners to help make the field school possible, including the Department of Entomology at Ohio State, the Department of Public Safety at Ohio State, Facilities Operations and Development at Ohio State, the Ohio State Swine Center, Ohio State Waterman Farm Agricultural Research Center, Franklin County Common Pleas Court, Franklin County Coroner's Office, Franklin County Public Defender's Office, K9 Response Search and Rescue, Ohio Bureau of Criminal Investigation and Identification, and Ohio Valley Archaeology, Inc. Each year approximately 30 individuals from numerous institutions,

organizations, and agencies provide instructional or logistical support for the program, *gratis*, including professors, graduate and undergraduate students, and professionals.

Each year the program serves as training for members of K9 Response Search and Rescue (<http://www.k9response.org/>), a central Ohio search and rescue group, when they provide a demonstration using their search and rescue canine teams. In 2012 the program was used to facilitate a training session for Search and Rescue Ohio (<http://www.ohiosar.com/>), a professional, unpaid, non-profit search and rescue disaster response team based in central Ohio.

Students. Undergraduate students from institutions across the United States apply to participate in this program by submitting a personal statement and a letter of recommendation. Students are selected based on academic achievement, career goals, and potential for success. Since 2011, 55 students have successfully completed this program: six in 2011, 11 in 2012, 19 in 2013, and 19 in 2014. The program is capped at 20 students each year with a student/instructor ratio of 5:1. Students are typically juniors or seniors and come from a variety of majors such as Anthropology, Biology, Chemistry, Criminology, and International Studies, many of whom are pursuing a minor in Forensic Science. All students receive 3.0 credit hours from Ohio State for completing the field school. Participants have come from universities and colleges in California, Connecticut, Florida, Illinois, Indiana, Louisiana, Michigan, Ohio, Vermont, Virginia, and Washington state. Some of these students return the next year to volunteer as an assistant instructor providing them with invaluable teaching experience for their resumes.

Student Testimonials and Post-Program Autobiographies

Students who completed the program from 2011 to 2014 were contacted and asked for their candid assessment of the program, how it helped them reach their academic and career goals, and what they have been doing since they completed the program. Twenty-two percent (12/55) of participants responded.

Ethan Fellers, 2011
Ohio State

“After finishing the field school in 2011, I still had a year of school left. I continued my education in the field of biology with a focus on forensic science. I returned to the anthropology department in the summer 2012 to be involved heavily in the field school taking place that year. This led into assisting with the curating of faunal skeletal remains for the department which was a very enlightening experience as well. I graduated in the fall of 2012 and was able to land a full-time job in the oilfield which I decided would work until an opportunity in my field was presented. Job offers came and went as I began to enjoy my work and quickly made my way up the chain in a fast growing boom in the gas and oil industry. I've enjoyed my time with this field of work, but I feel that I want to get back to school and pursue a degree more focused in forensic science.

Testimonial time!

I attended the 2011 field school, which would have been during the summer after my third year of undergrad. Walking into the classroom on the first day was a little intimidating with the realization of the intense work that would lie ahead. Six students including myself were the individuals who would receive one-on-one instruction almost every day. We built a close-knit team that worked hard to be successful in the classroom and during the mock investigation.

The most important things that I learned from the field school were improved teamwork skills and the ability to look at the big picture, but that doesn't rule out the vast technical skills and experience taught by each of the experts. Each of the skills we worked on throughout the course has its place in any career and in everyday life.

The small class size was a major plus because it allowed us to build connections with the experts and understand the skills involved to be successful their respective fields. I also liked the fact that each day we were taught things that would bring new skills to the table which kept, in my mind at least, a steady interest to learn the advanced material and skills.

There's no doubt that I would promote this course to someone who is interested. The experience of building professional relationships and the skills learned were worth all the time and hard work."

Sydney Kaser, 2012
University of Washington

"I attended the OSU Forensic Science and Anthropology Field School in 2012, a year after graduating from the University of Washington in Seattle with a B.A. in Anthropology and an Art History Minor. After the field school I worked for two years in commercial property management, but during the summer of 2013 I attended the OSU Field School in Medieval Archaeology and Bioarchaeology in Badia Pozzeveri, Italy and returned in the summer of 2014 as an assistant in the osteology lab. As you know, I am now a first-year Masters student at OSU.

The OSU Forensic Science and Anthropology Field School is a fabulous, hands-on introduction to a multitude of topics in Anthropology and forensic science that utilizes the fantastic resources of the Ohio State University, the PAST Foundation, and the city of Columbus. The exposure to a wide variety of topics, instructors, and practical experience is fantastic and enables to students to explore a multitude of interests. The OSU Forensic Science and Anthropology Field School was an invaluable experience that helped me determine that I wanted to attend graduate school and helped me get into the OSU Field School in Medieval Archaeology and Bioarchaeology in Badia Pozzeveri, Italy the following summer. Both field schools provided me with practical experience that rounded out my application to graduate school, and as a result I am now a Masters student in the Department of Anthropology at the Ohio State University. I would highly recommend this field school to anyone interested in forensic science, criminal justice, and Anthropology."

Nora Anderson, 2012

Ohio Wesleyan

“After the field school, as much as I liked it, I decided that Physical Anthropology wasn’t for me. My college didn’t really have a decent course selection in the field, and I enjoyed my Cultural Anthro & Sociology classes a lot more. However, our mock trial and courtroom setting really got me interested in pursuing law as a career. I graduated in spring 2014 from Ohio Wesleyan with degrees in Sociology/Anthropology (they are the same department) and French. I am spending this year in the Episcopal Service Corps in Franklinton, Columbus, and have been accepted to Loyola Chicago Law with \$32k/year in scholarships, and to Detroit Mercy Law with a 75% per year scholarship. I am still waiting to hear from OSU Law and UC-San Francisco Law.

Brook Potts, 2013
Ohio State

“I discovered the Forensic Science and Anthropology field school during my junior year at OSU and the impact it had on my life is profound. One of the best parts of this program is the field aspect where unlike most college courses, the learning is done in an interactive and real-world way. Not only did I gain knowledge in nearly all forensic disciplines, but I had to opportunity to apply it in a genuine setting and learn and practice the technical skills involved. Furthermore this course prepared me for a real career by compelling us to take responsibility, make decisions, and act professionally. If you are a student with any level of interest in forensics and seek to take learning outside of the classroom, I highly recommend this course. From investigating a mock crime scene, to digging up bodies at OSU’s farm, to testifying in an actual courtroom, this program is both unique and enlightening.

The field school allowed me for the first time to truly envision myself employed in the forensics sector. Upon completing the program, I graduated from OSU with a bachelor’s degree in biology and a minor in forensic science. I am currently in the process of applying to graduate schools, something I may not have done without the push of motivation the field school gave me. It was a great way to begin the transition from academics to career, increased both my interest and drive, and was altogether an invaluable experience that I will always remember. “

Sarah Welsh, 2013
Ohio State

“Completing the Forensic Anthropology Field School was a wonderful experience that helped me decide that I had chosen the correct career path. Since the program offered a wide range of topics from facial reconstruction to searches with cadaver dogs to outdoor excavating, there was really something for everyone to enjoy. My favorite part of the field school was that I was also able to connect with other students who share the same interests and areas of study, creating new friendships I still have today. I also thoroughly enjoyed being able to participate in experiences that I may not have ever been able to do. For example, I was able to use ground-penetrating radar, process evidence at an indoor and outdoor crime scene, explored facial reconstruction, and

numerous other experiences. For anyone who is interested in any aspect of anthropology or forensic science, I would highly recommend this program, because it is an amazing opportunity. Since completing the program I have been continually taking classes so that I can graduate with a degree in forensic biology by the end of 2015, I will be studying abroad in England with the Biological Roots Program over spring break 2015, and I am searching for an internship with a forensic crime lab. While I have not currently obtained an internship, I hope that the experiences I gained through the Anthropology Field School will be beneficial in my search.”

Chelsea Skoog, 2013
James Madison University (Virginia)

“As for me, I am currently a senior at James Madison University. Since I attend the field school in 2013, I have moved on to completing another field school. I took part in a Sanisera Bioarchaeology Field School out of Menorca, Spain which focused on excavating a collection of graves with remains dating back to the fall of the Roman Empire. I learned different excavation techniques, reconstruction of broken remains, creating biological profiles, and inventorying the non articulated remains. I actually attend this field school with a friend I made at OSU and we have continued to stay really close friends. It was a great experience and it allowed me to compare the techniques of a bioarchaeologist to forensic anthropologist and helped me to narrow down what exactly I wanted to focus for my future career. I am currently in the process of applying to a few graduate schools, including The Ohio State University, focusing on osteology.”

Alexa Tanen, 2013
Whittier College (CA)

“I spent the rest of the summer going to the short courses that Mercyhurst University in PA offers for forensic anthropology, forensic archaeology, human osteology, and recovery of a fatal fire scene with Dr. Dirkmaat, Dr. Symes, and Dr. Ousley. Last summer I had a six week internship in HI with the Joint POW/MIA Accounting Command in forensic anthropology helping with organizing the files for victims from the Korean War. I graduated from Whittier College in CA this past May with a B.A. in Modern Human Nature and have since completed my first semester of my M.S. in Forensic and Biological Anthropology at Mercyhurst University. I enjoyed playing with clay while we were taught about facial reconstruction, but I didn't feel that it was very educational. I really enjoyed the mock trial part of the course and felt that the skills of explaining the science behind forensic in laymen's terms are valuable and will come in handy later when I am looking for a job. The Body Farm is very neat and a good experience, as well as a great avenue for future and current research which I think is important for people to visit and learn about. I would definitely recommend the program to other people.”

Haley Horbaly, 2013
Ohio State

“After completing the OSU field school, I returned as an assistant instructor for the course the following year. It was extremely fulfilling to use everything I had learned in the field school and pass it on to the next group of kids. I was excited to see how the course was organized, and all the behind the scenes work the instructors accomplished to make it run smoothly. Seeing all of this, combined with the excitement that the students had for each module gave me a much deeper appreciation for how unique the program is; I truly value the experience as both a student and instructor.

In summer 2013 (after completing the field school as a student), I did a mini internship with the Henrico County Police Department in Richmond, Virginia. I was able to spend a lot of time in many different departments, from tech crimes, to fingerprint analysis, forensic art, and I even got to spend a day on patrol with an officer. I found that, because of the OSU field school and the variety of guest speakers and modules we experienced, I had a greater appreciation for the work going on in and between these departments.

In summer 2014, I pursued a second field school, this time in Menorca, Spain. I participated in an archaeological dig of an ancient Roman necropolis, and spent over 108 hours in the field and the lab. I was able to gain so much direct experience with the recovery of fragile human remains, and got to enjoy a new part of the world at the same time. In the lab we spent time determining MNI for the various graves, and making biological profile assessments for the skeletons.

Once I returned from Spain, I began applying for a Fulbright grant. Should I get the grant, I will be funded for independent research to be conducted in Cape Town, South Africa with Dr. Alan Morris. My grant proposal involves an analysis of the Khoesan skeletal collection housed at University of Cape Town to determine if this small-bodied population might give insight into the relationship between lack of sexual dimorphism and the difficulty in sexing juvenile skeletal remains. The Fulbright application process alone was by far the hardest endeavor I have pursued in college, but the potential rewards make it worth the work.

Should the Fulbright for 2015 not pan out, I'm currently spending my last semester of undergrad applying to graduate programs at University of Tennessee, University of Florida, Mercyhurst, University of Indianapolis, and Texas State. I'm looking to complete my Masters in Biological Anthropology with a focus in forensics (and eventually move on to earn my PhD). I've been in contact with many professors from these universities and am beginning to make some visits to their anthropology departments so I can meet them face to face.

Overall, the OSU field school truly jump-started my career in forensic anthropology. I learned so many essential lessons, from how to properly map a grave, all the way down to how to conduct yourself in court. Because it is such a unique and comprehensive program, it looks fantastic on my CV, and I'm convinced it's played a crucial role in my acceptance to other programs and internships. I highly recommend this field school to anyone interested in any aspect of forensics, as you engage with a range of professionals such as police officers, attorneys, biologists, etc. Though I went for the anthropology aspect, I learned valuable lessons on how different professionals' roles fit together in a medico-legal investigation. This experience definitely confirmed my aspirations and has helped propel me towards a successful career in anthropology.”

Laura Szurek, 2014
Northeastern Illinois University

“After the field school, I returned to my home college with a better idea of what I wanted to do and how I would get there.

The field school solidified my interest in forensic anthropology and bioarchaeology. I already knew that I loved the topic and questions of forensic anthropology. The field school challenged me to apply archaeological techniques which I had previously only read about.

The field school gave me motivation as well as a plan to continue. The experiences made me realize that I would need a sturdier foundation of biology and chemistry to continue. More than that, I was excited for these hard science courses that I had previously avoided. I am currently working a biology minor.

Forensic anthropology relies on research, and there is still much to be investigated. The scientific method was emphasized throughout the field school. Prior to the field school, I had been interested in burned bone in forensic settings. After the field school, I began a more serious investigation of the topic, and am currently planning a senior thesis on the effect of fire on bone.

Overall, this field school was a necessary experience for me in figuring out my next steps. It was challenging, and because of this it was satisfying. Though the work could be intense, the environment was supportive and encouraging. I would definitely recommend this field school to someone who is interested in forensic anthropology.”

Beth Roberson, 2014
Ohio State

“The Forensic Science and Anthropology Field School was a wonderful learning experience. You sit in class all semester learning the theories and methods out of books, wondering when and how to apply this knowledge. This field school gave me the hands on learning that I crave. The curriculum was broad enough that students from multiple fields have the potential to gain from it. The multifaceted approach used in this field school kept it interesting and exciting. I feel that I came away with vast amounts of useful knowledge from the numerous experts we were lucky enough to work with through this experience. My favorite aspect of this field school was that we worked through it as if we were working an actual case, where else can you get that kind of practical work experience before actually being on the job? This experience has left me feeling like all the boring book work I do is completely worth it.

Ethan Fellers, 2011
Ohio State

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Taylor Walter, 2014
Ohio State

"I am currently still an anthropology major here at Ohio State, but have decided to add a public health minor. I am anticipating graduating at the end of the next fall semester, and then moving on to graduate school to obtain a masters in public health or possibly a dual M.S.H., Ph.D. in anthropology. I have not taken any further field schools, and as you can see, I have shifted my focus a bit from forensics to an applied medical side of anthropology. Although I don't foresee myself further involved in the forensic side of anthropology, the field school last May was certainly a wonderful opportunity that I am thrilled to have completed. The class opened my eyes to a variety of fields within in and connected to the discipline. When I first took the class, I was pretty new to the anthropology department, so the class was a great leap into the field as a whole that significantly helped in preparing me for further anthropology classes and general professional work in the field. Additionally, one of the moments from the field school that continues to stick out in my mind, is court day. I was so excited to partake in the trial in a very real court setting. It was an unforgettable experience, and one that has even made me consider further work in the legal field. I would highly recommend this field school really to anyone, but especially those with an interest in the forensic side of anthropology. The hands on experience

and vast exposure to all the facets linked to forensics were invaluable. Thanks again to you and all the other instructors and professionals that helped make this a great learning and life experience!”

Corey Pollock, 2014
Ohio State

“The forensic field school was an amazing experience and had an enormous influence in my life as well as my studies. It provided the experience I needed to solidify my desires to obtain a career in forensic anthropology. Lectures can only give a basic introduction of the topics, but the hands-on experience with the aid of incredible, knowledgeable instructors provides the in-depth instruction needed to better understand the subject. The field school gives the opportunity to engage in various aspects of forensics, which allows the students to determine their main topic of interest and to possibly help determine a future career path. After completing the field school I was given the opportunity to participate in a program called Forensics in the Classroom. I returned to my old high school and instructed incoming freshman in aspects of forensics including, blood splatter analysis, forensic anthropology, crime scene photography, and crime scene mapping. This opportunity allowed me to solidify my knowledge by teaching what I had learned to others. I am currently finishing my last undergraduate semester at The Ohio State University and I am currently applying to graduate programs. My ultimate goal is to go to graduate school and obtain a PhD in forensic anthropology in order to become a forensic anthropologist involved in forensic cases.”

Summary

There is no other program in North America like the Forensic Science and Anthropology Field School offered by The Ohio State University and the PAST Innovation Lab. It provides participants a unique opportunity to develop professional skills in a problem-based learning environment facilitated by individuals with years of real-world forensic science experience. The program acts as a gateway into a career in the forensic sciences or related fields (law enforcement, legal system). The program has garnered a reputation as one of the premier field schools in forensic science and is receiving national attention as evidenced by applicants from around the country.