



THE EVOLUTION OF MEDICAL SCIENCE

Bio-Treks: STEM Ecology Series

A global series of immersive STEM programs exploring biology, ecology, geology, ocean science, and environmental sustainability through hands-on fieldwork and meaningful environmental context.

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Washington DC, Virginia & Maryland - USA

Day	Meals	Morning	Afternoon	Evening
1	Sun	D	Travel to Washington DC area and transfer to hotel; Welcome, Safety & Orientation Briefing	Ford's Theatre & Petersen House D.C. Welcome Dinner at Hard Rock Café
2	Mon	B, D	Battlefield Medicine & History: Pry House Field Hospital Museum, Antietam National Battlefield & the National Museum of Civil War Medicine - includes Sutures, Anesthesia, Bullet Removal, Pill Rolling and Medicine-making	Dinner
3	Tues	B, D	Johns Hopkins University Campus Tour	National Museum of Dentistry with Dental Health Master Class Stabler-Leadbeater Apothecary Museum Dinner
4	Wed	B, D	Washington DC Private Guided Monuments Tour	I-Fly STEM Master Class & Instructor-Led Flights Dinner
5	Thur	B, D	National Museum of Health & Medicine Tour & Forensics Workshop	Smithsonian National Museum of Natural History Q?rius Lab: Forensic Anthropology & Human Biology Dinner & Dance Cruise on the Potomac
6	Fri	B, D	CPR / AED Certification Class with the Red Cross	GWU Medical Simulation Center – Clinical Skills Lab Farwell Dinner & Reflections
7	Sat	B	Free time until departure; depart for home	



As with all sample itineraries, please be aware that this is an “example” of a schedule and that the activities included may be variable dependent upon dates, weather, special requests and other factors. Itineraries will be confirmed prior to travel.



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A Message From Our Team

At STEM Study Tours, we believe students learn best when they're immersed, engaged, and inspired. Every program is built with intention - blending hands-on discovery, academic depth, and meaningful experiences that help students see the world (and themselves) in new ways. Our goal is for each itinerary to spark curiosity, build confidence, and create moments students carry long after the trip ends. We're honored to partner with schools who share that vision and to help bring learning to life beyond the classroom.

— Michele & The Hammock Expeditions Team

Why Travel With Hammock Expeditions & STEM Study Tours

Schools choose us because we design programs that are organized, intentional, and built around real learning. Our itineraries combine strong academics with smooth logistics, giving teachers confidence and giving students opportunities to explore, ask questions, and grow. We partner with trusted local experts, communicate clearly, and support groups every step of the way so educators can focus on their students - not the logistics.

What Sets Us Apart

- **Purpose-Driven Itineraries** - Students actively participate in meaningful, real-world learning.
- **Safety, Structure & Professionalism** - From 24-hour support to vetted partners and clear communication, we ensure teachers can focus on their students while we handle the logistics.
- **Hands-On, High-Impact Learning** - Our programs emphasize field science, conservation, and experiential learning - the kind that sticks with students long after the trip ends.
- **Student-Centered Design** - We balance learning with fun, reflection with adventure, and structure with flexibility. Every day is crafted to keep students engaged, energized, and supported.
- **A Team That Travels With Purpose** - We're educators, planners, naturalists, and travel professionals who care deeply about student growth. Your goals become our goals.

Our Commitment to You

When you travel with us, you gain a partner who understands your vision, anticipates your needs, and delivers an experience your students will remember for years to come. We're here to support your school, empower your students, and make every moment meaningful.

We want to be your educational partner. Let us know how we may serve you.

Michele, Christina, Izzy, Dana, Taylor, and the Team



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The Evolution of Medical Science

Where Medical Science Comes Alive: This program traces the story of medicine across time, giving students a front-row seat to how humans have learned to understand, treat, and heal the body. From early apothecary practices to the realities of battlefield care, students explore the foundations of medical knowledge before stepping into modern labs where anatomy, pathology, and forensic science take center stage. Each day offers a new lens on the human body - whether examining skeletal trauma, identifying biological clues, or practicing clinical decision-making in a simulation environment. Through hands-on experiences and expert-guided workshops, students discover how science, history, and human resilience intersect to shape the medical world we know today.

A Journey That Inspires Future Clinicians: Designed for curious learners, this itinerary immerses students in the evolving world of medical science through meaningful, interactive experiences. They work alongside educators and clinical specialists, analyze real specimens, and explore the tools and techniques used to diagnose, treat, and understand the human body. As they move from historic medical sites to modern simulation labs, students gain insight into how innovation, research, and compassion drive the field forward. These experiences build more than knowledge - they spark confidence, purpose, and a deeper appreciation for the role science plays in improving lives. By the end of the journey, students walk away inspired to lead, discover, and contribute to a future shaped by medical advancement.



Did you know?

- › Civil War surgeons performed more than 60,000 amputations, and the survival rate was far higher than most people imagine - nearly 75% - thanks to surprisingly effective early anesthesia and fast battlefield triage.
- › The Stabler-Leadbeater Apothecary once filled prescriptions for George Washington, including treatments for pneumonia, digestive issues, and pain management using ingredients still recognizable in modern pharmacology.
- › Forensic anthropologists can determine age, sex, trauma, and even lifestyle from skeletal remains - sometimes with just a single bone fragment.
- › The National Museum of Health & Medicine houses the original bullet that killed President Lincoln, preserved as part of its historic pathology collection.
- › Modern clinical simulation labs, like the one at GWU, use high-fidelity manikins capable of breathing, bleeding, seizing, and responding to medication, allowing students to practice real-time medical decision-making.
- › Dentistry was once considered a trade rather than a medical profession - until the University of Maryland School of Dentistry, founded in 1840, became the first dental school in the world and transformed oral health into a scientific discipline.
- › Battlefield medicine introduced innovations we still rely on today, including triage systems, ambulance transport, and early versions of sterile technique.



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Day 1: Welcome to D.C.: Your Medical Adventure Begins!

Dinner

After landing in the Washington, D.C. area, your group will meet your Tour Director and transfer to the hotel to get settled. Once rooms are assigned and everyone has a chance to refresh, students will gather for our **Health, Safety & Orientation Briefing** - an important kickoff session where we outline expectations, review daily schedules, and introduce the medical-science experiences ahead. This first meeting sets the tone for a smooth, organized, and exciting week, giving students the chance to meet the team, ask questions, and start the adventure together.

Today's activities include:



Ford's Theatre & Petersen House - Stepping into Ford's Theatre and the Petersen House brings students face-to-face with one of the most pivotal moments in American history. They'll explore the events surrounding President Lincoln's final hours and learn how 19th-century medical practices shaped the response to his injury. Inside the Petersen House, students trace the efforts of physicians who worked through the night, gaining insight into the tools, techniques, and limitations of trauma care during the Civil War era. This experience blends storytelling, history, and early medical science, offering an introduction to how far medicine has evolved.

Day 2: Battlefield Medicine & Hands-On History

Breakfast & Dinner

Today's activities include:



Battlefield Medicine & History - Students spend the day uncovering how medical care was delivered under the intense conditions of the Civil War, visiting the Pry House Field Hospital Museum, Antietam National Battlefield, and the National Museum of Civil War Medicine. Through powerful stories and guided demonstrations, they see how surgeons triaged injuries, managed trauma, and improvised treatments with the tools of the era. This immersive experience connects early battlefield practices to the foundations of modern emergency medicine, giving students a clear, engaging look at how innovation often begins in moments of crisis.

★ **Hands-On Skills & Workshops:** Students participate in interactive medical stations such as:

- Suturing practice using period-inspired techniques
- Anesthesia demonstrations and the evolution of pain management
- Bullet removal simulations showing early trauma-care decision making
- Pill rolling and apothecary medicine-making
- Tool handling and exploration of historic surgical instruments

Day 3 - Medical Milestones: From Campus to Clinic

Breakfast & Dinner

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Johns Hopkins University Campus Tour - Students explore one of the world's leading institutions for medical research and innovation as they tour the Johns Hopkins University campus. Guided by engaging storytellers, they learn how Hopkins became a global center for discovery, clinical excellence, and scientific breakthroughs. Walking through its historic quads and modern facilities, students gain a firsthand look at university life, the pathways that lead into medical careers, and the spirit of curiosity that drives the Hopkins community. It's an inspiring glimpse into the future for any student interested in health, science, or research.



National Museum of Dentistry & Dental Health Master Class - Students dive into the science, history, and hands-on practice of oral health at the National Museum of Dentistry. Through engaging exhibits and demonstrations, they explore how dentistry has evolved from early tools and techniques to modern clinical care. During a class, students step into the role of practitioners as they examine real instruments, learn the basics of oral anatomy, and practice skills used in today's dental offices. This session connects historic innovation with current best practices, giving students a clear, accessible look at the vital role dentistry plays in overall health.



Stabler-Leadbeater Apothecary Museum - Students step inside one of America's best-preserved historic pharmacies to explore how medicines were made, stored, and dispensed in the 18th and 19th centuries. Surrounded by original jars, tools, and handwritten ledgers, they learn how apothecaries blended chemistry, botany, and early medical practice to treat patients long before modern pharmaceuticals existed. This visit connects historic remedies and compounding techniques to today's clinical standards, giving students a vivid look at how medical knowledge evolved from handcrafted cures to evidence-based medicine.

Day 4 - Monuments & Momentum: A High-Flying Day!

Breakfast & Dinner

Today's activities include:



Washington DC Guided Monuments Tour - Students explore Washington's most iconic monuments and memorials with a private educational guide who brings each stop to life through history, stories, and fun facts. Traveling by motorcoach from site to site, the group steps off for guided walking tours that highlight the symbolism, design, and national significance of landmarks along the National Mall. This engaging experience offers students a meaningful, up-close introduction to the leaders, events, and ideals that have shaped this nation.



iFly STEM Master Class & Instructor-led Flights - Students take flight as they explore the physics and engineering behind indoor skydiving during iFly's STEM Master Class. In this high-energy workshop, instructors break down concepts like lift, drag, airflow, and body position, showing how math and science shape every movement inside the vertical wind tunnel. After the lesson, students suit up for instructor-led flights, experiencing firsthand how small adjustments in posture and balance change their motion. This thrilling combination of classroom learning and real-time application turns abstract STEM principles into something they can feel, control, and remember.



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Day 5 - Science, Skeletons & a Night on the Water

Breakfast & Dinner

Today's activities include:



National Museum of Health & Medicine, Tour & Forensics Workshop - Students begin with a guided tour of the National Museum of Health & Medicine, exploring how medical science and military medicine have evolved from the Civil War era to modern practice. Exhibits on anatomy, pathology, innovation, and battlefield care highlight the breakthroughs, challenges, and human stories that shaped today's medical standards, giving students a deeper appreciation for how far clinical knowledge has come.

During the Forensics Workshop, museum educators introduce the science of human identification, guiding students as they examine skeletal remains to estimate age, sex, height, trauma, and other clues used in real investigations. This hands-on session blends anatomy, anthropology, and critical thinking, giving students a powerful look at how science brings clarity and closure to the unknown.



Smithsonian National Museum of Natural History & Qrius Lab - Students explore the Smithsonian's world-class natural science collections as they move through exhibits on evolution, ecosystems, human origins, and the biological processes that shape life on Earth. With access to iconic galleries and real scientific specimens, they gain a deeper understanding of how researchers study life's diversity, trace human development, and uncover the evidence that connects all living things. This museum experience sets the stage for the scientific investigation they'll tackle next.

Their visit continues in the Qrius Lab, where Smithsonian educators lead a hands-on workshop in forensic anthropology and human biology. Students examine skeletal features, analyze real specimens, and practice the methods scientists use to identify individuals and interpret evidence. This interactive session blends anatomy, investigation, and critical thinking, giving students a dynamic look at how biological science helps unlock stories hidden within the human body.



Dinner & Dance Cruise on the Potomac - Students end their evening with a festive dinner and dance cruise along the Potomac River, enjoying panoramic views of Washington's illuminated monuments as the boat moves through the heart of the capital. A great buffet keeps everyone fueled while the open decks offer fresh air and unforgettable photo moments. Once the music starts, the dance floor becomes a lively, supervised space where students can celebrate with friends and unwind after a full day of learning. It's a fun, memorable way to experience D.C. at night.

Day 6 - Skills, Simulations & Reflections

Breakfast & Dinner

Today's activities include:



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CPR / AED Certification Class by the Red Cross - Students participate in an official CPR/AED Certification Class led by American Red Cross instructors, learning the lifesaving skills used in real emergency situations. Through guided demonstrations and supervised practice, they master the steps for adult and child CPR, chest compressions, rescue breathing, and how to safely operate an Automated External Defibrillator. By the end of the session, students complete the required assessments to earn their nationally recognized certification.



George Washington University Simulation Center & Clinical Skills Lab - Students begin with a guided experience inside GWU's state-of-the-art Simulation Center, where they see how high-fidelity mannequins, clinical equipment, and realistic medical scenarios are used to train future healthcare professionals. As they move through the facility, they learn how doctors, nurses, and emergency responders practice decision-making, teamwork, and patient care in a controlled environment that mirrors real clinical settings. This behind-the-scenes look gives them a clear sense of how technology and simulation support modern medical training.

Their visit continues in the Clinical Skills Lab, where GWU educators lead hands-on rotations that introduce students to vital signs assessment, airway management, and other foundational clinical techniques. Working directly with simulation tools and guided instruction, students practice the methods used in real medical training programs.

Day 7 - Big Smiles and Departure

Breakfast included; departure day

As your time in Washington, D.C. comes to a close, we hope you leave feeling inspired by the medical discoveries you explored, the professionals you met, and the hands-on experiences that brought science to life. From clinical simulations at George Washington University to forensic anthropology workshops at the Smithsonian, each activity was designed to spark curiosity, deepen understanding, and build confidence in the world of health and human biology. With new knowledge, new friendships, and a greater appreciation for the role science plays in our everyday lives, you begin your journey home carrying memories that will stay with you long after the trip ends. Depending on your flight schedule, you'll transfer to the airport and check in for your return trip, ready for whatever adventure comes next!

Farewell Washington!



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Weather in Washington D.C.

Spring (March–May): Mild, Variable, and Blooming

- › Temperature: 56–75°F (13–24°C)
- › Conditions: Pleasant but changeable - sunny stretches mixed with breezy, rainy days. Cherry blossoms typically peak in late March or early April.
- › Highlights: Ideal for walking tours, outdoor exploration, and monument visits. Parks and the Tidal Basin come alive with spring color.
- › Packing Tips: Light layers, a waterproof jacket, comfortable walking shoes, and an umbrella for sudden showers.

Summer (June–August): Hot, Humid, and Active

- › Temperature: 84–90°F (29–32°C) on average, with humidity making it feel hotter.
- › Conditions: Long sunny days, frequent afternoon thunderstorms, and heavy humidity - especially in July.
- › Highlights: Great for museums, indoor attractions, and shaded outdoor spaces. Evening activities are often more comfortable than midday walking.
- › Packing Tips: Breathable clothing, sun protection, refillable water bottle, and a light layer for strong indoor A/C.

Fall (September–November): Comfortable, Colorful, and Crisp

- › Temperature: 60–75°F (16–24°C) early fall, cooling to the 50s by November.
- › Conditions: Mild days with cooler evenings; occasional showers. Fall foliage peaks in late October.
- › Highlights: Perfect for outdoor tours, campus visits, and exploring monuments without summer crowds or heat.
- › Packing Tips: Layers for shifting temperatures, a light jacket, and sturdy walking shoes.

Winter (December–February): Cool, Quiet, and Variable

- › Temperature: 40–55°F (4–13°C) with colder lows in January and February.
- › Conditions: Crisp days, periodic rain, and occasional snow. Wind can make temperatures feel colder.
- › Highlights: Fewer crowds, excellent museum days, and atmospheric winter views across the National Mall.
- › Packing Tips: Warm layers, a medium-weight jacket, waterproof footwear, gloves, and an umbrella.

Civics & Courtesy in Washington, D.C.

Federal Buildings & Security

Expect airport-style security at the Capitol, Supreme Court, and federal offices. Follow staff instructions, stay with your group, and keep noise low in formal areas.

Professional Conduct

Many spaces you'll visit are active workplaces for government officials. Use polite language, avoid running or shouting, and be respectful during briefings or Q&A sessions.

Photography & Behavior

Photos are welcome in most public areas, but some rooms restrict photography. Always ask or follow posted signs. Maintain quiet in courtrooms, galleries, and memorial spaces.

Public Transportation & City Navigation

Washington is a busy urban environment. Stay aware of traffic, crosswalk signals, and pedestrian flow. Keep backpacks zipped and valuables secure.

Respect for Memorials

Monuments and memorials are places of reflection. Speak quietly, avoid climbing on structures, and treat each site with care.



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Taste of Washington, D.C. – Local Favorites to Try

Washington, D.C. blends classic American comfort foods with international flavors from around the world. Whether grabbing a quick bite between activities or exploring during free time, students will find plenty of iconic and easy-to-love options across the city.

1. *Half-Smoke Sausage* – A D.C. specialty, famously served at Ben's Chili Bowl.
2. *Jumbo Slice Pizza* – A late-night legend in Adams Morgan; huge, fun, and student-friendly.
3. *Maryland Crab Cakes* – A regional favorite found throughout the D.C. area.
4. *Ethiopian Cuisine* – D.C. has one of the largest Ethiopian communities in the U.S., with incredible injera and stews.
5. *Food Trucks on the National Mall* – Quick, affordable options ranging from tacos to gyros.
6. *Cupcakes from Georgetown* – Georgetown Cupcake or Baked & Wired are student favorites.
7. *Classic American Burgers & Fries* – Easy, familiar, and available everywhere.

Entry Requirements for Travel to the USA

Entry requirements for entering the United States vary by nationality, and all travelers are responsible for checking the most current information during planning and before departure. The guidelines below are accurate at the time of writing and are subject to change without notice. Always verify requirements through your government's travel authority and the official U.S. Customs and Border Protection (CBP) or U.S. Department of State websites prior to travel.

General Requirements (All International Travelers)

- ✓ A valid passport
- ✓ Proof of onward or return travel
- ✓ Compliance with U.S. Customs and Border Protection screening
- ✓ No active travel restrictions or inadmissibility flags

Visa or ESTA Requirements - Visa Waiver Program Travelers (Including many European and Asian countries)

- ✓ Must obtain ESTA (Electronic System for Travel Authorization) prior to travel
- ✓ Passport must be an approved e-passport
- ✓ ESTA is valid for short stays (up to 90 days)

Visa or ESTA Requirements - Non-Visa Waiver Travelers

- ✓ Must obtain a B-1/B-2 visitor visa
- ✓ May be asked to show proof of accommodation, program details, or financial means

U.S. Citizens & Permanent Residents

- ✓ No passport or visa required for domestic travel
- ✓ Government-issued photo ID required for flights (REAL ID compliant)

Important Notes

- Entry requirements can change; travelers must check for updates before departure.
- Some nationalities may require additional documentation or interviews.
- Schools traveling as a group should ensure all passports meet validity requirements.



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Minimum Booking Numbers: 20 students

What's Included:

- ✓ Roundtrip international flights
- ✓ 6-nights' accommodation in the Washington DC metro area
- ✓ Airport transfers & group transportation to activities
- ✓ Breakfasts & dinners daily starting with dinner on your night of arrival and ending with breakfast on your day of departure (dependent upon flight times)
- ✓ Ford's Theatre & Petersen House
- ✓ Battlefield Medicine & History Day (National Parks): Pry House Field Hospital Museum, Antietam National Battlefield & the National Museum of Civil War Medicine - includes Sutures, Anesthesia, Bullet Removal, Pill Rolling and Medicine-making
- ✓ Johns Hopkins University – Campus Tour
- ✓ National Museum of Dentistry & Dental Health Master Class
- ✓ Stabler-Leadbeater Apothecary Museum
- ✓ Washington DC Guided City Monuments Tour
- ✓ iFly STEM Master Class & Instructor-led Flights
- ✓ National Museum of Health & Medicine Tour & Forensics Workshop
- ✓ Smithsonian National Museum of Natural History & Q?rius Lab: Forensic Anthropology & Human Biology
- ✓ Potomac River Dinner & Dance Cruise
- ✓ CPR / AED Certification Class with the Red Cross
- ✓ George Washington University Medical Simulation Center – Clinical Skills Lab
- ✓ Personal Tour Director
- ✓ 24-hour emergency cover

What's Not Included:

- ☒ Fully comprehensive insurance (**mandatory**; available at registration or purchase through your own provider)
- ☒ Lunches (payable on own), snacks or beverages other than at designated mealtimes; meal selections other than ones provided for the entire group (we are generally able to cater for allergies, vegetarians, halal and in some cases vegan)
- ☒ Transfers to/from home airport
- ☒ Baggage costs, pay directly to airline if required
- ☒ Baggage handling - everyone should be able to pull / load their own bag
- ☒ Cost of visas, visa waivers, passports or other legal requirements for entry/return
- ☒ Cost of inoculations or medication required for travel
- ☒ Hotel incidental deposits & bills – mini-bar, movies, etc.
- ☒ Sightseeing / Entertainment / Transport not shown in Itinerary
- ☒ Gratuities – drivers, hotel services, area guides, tour director
- ☒ Credit card fees if individuals wish to pay via credit card instead of ACH
- ☒ Additional taxes, fuel surcharges or fees levied by governments / suppliers

As always, our staff are available to you to answer any questions you may have regarding programming.
If we may serve you in any way, please do not hesitate to contact us.



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