# L.LEA 195 - Engineering & Robotics

**Overview:** This ten day high school conference is a comprehensive introduction to engineering & robotics. Through classroom lecturing, high-profile guest speakers, interactive small-group work, and a final engineering and robotics simulation, students will be exposed to a broad array of current issues relating to many dimensions of science and engineering. Lectures are presented by college professors or graduate students, while additional presentations are given by professionals and experts in the topic area. In addition, student's complete LeadAmerica's core curriculum focused on college and career success with an emphasis on College Admissions, College Options/Selections, Career Planning, and critical 21st Century skills.

**Course Content:** Some or all of the topics listed below will be covered:

Biomedical Engineering
Computer Programming
Cooperative Engineering
Education in Engineering
Energy
Forces
History of Technology
Leadership in Science
Mathematical Modeling
Motor Design and Control
Project Management
Remote Sensing
Robotics
Systems Engineering
Vectors

**Readings:** Students will be given approximately 60 pages of collegiate-level background reading assignments in science and engineering. They will be given approximately 20 additional pages of material to read for the Engineering and Robotics simulation.

**Simulation:** Throughout the course of the program, students will design, manage, and partially construct a self-propelled robotic vehicle capable of performing tasks devoid of immediate human interaction.

**Classroom Activities:** In addition to lecture and discussion, students will:

- Compete in engineering and design challenges
- Meet prominent professionals in engineering fields
- Explore the ethical issues raised by rapidly developing technologies
- Learn how engineering has impacted the history of mankind and vice versa

**Off-site experiences:** In addition to trips intended to expose students to the city in which the conference is held, conference participants take trips to some or all of the following: scientific museums, research laboratories, and university engineering departments. Students attending conferences in the Washington, DC area visit Capitol Hill and tour the area monuments.

# L.LEA 195 - Business & Entrepreneurship

**Overview:** This seven to ten day high school conference is a comprehensive introduction to global business and entrepreneurship. Through classroom teaching, guest speakers, interactive small-group work, and a final business plan simulation, students gain exposure to a broad array of current issues relating to many dimensions of the business world, from opportunity analysis to business ethics. Lectures are presented by college professors or graduate students, while additional presentations are given by professionals and experts in the topic area. In addition, student's complete LeadAmerica's core curriculum focused on college and career success with an emphasis on College Admissions, College Options/Selections, Career Planning, and critical 21st Century skills.

**Course Content:** Some or all of the topics listed below will be covered:

Capital Investing
Company Organization
Critical Thinking and Analysis
Financial Analysis
Forecasting
Marketing Management
Operations
Opportunity Evaluation
Presentation Skills
Product Development
Sales Strategies
Venture Capital

**Readings:** Students will be given approximately 60 pages of college level background reading assignments in business, management, and ethics. They will be given approximately 25 additional pages of material to read for the simulation.

**Simulation:** Throughout the course of the program, students will develop a business plan for a product of service of their own devising. At the end of the program, teams may have an opportunity to present their business plans to real venture capitalists for feedback.

**Classroom Activities:** In addition to lecture and discussion, students will:

- Debate ethical business practices during the ethics case study
- Conduct an opportunity analysis
- Develop and present a business plan
- Work with realistic business case studies

**Off-site experiences:** In addition to trips intended to expose students to the city in which the conference is held, conference participants take trips to some or all of the following: business schools, financial institutions, and museums with business related exhibits.

# L.LEA 195 - Law & Justice

**Overview:** This eight to ten day high school conference is a comprehensive introduction to law and justice – from the crime scene to the courtroom. Through classroom teaching, guest speakers, interactive small-group work, and a final Mock Trial simulation, students will be exposed to a broad array of current issues relating to the many dimensions of criminal justice including crime scene investigation and forensic science to courtroom techniques and legal ethics. Lectures are presented by college professors or graduate students, while additional presentations are given by professionals and experts in the topic area. In addition, student's complete LeadAmerica's core curriculum focused on college and career success with an emphasis on College Admissions, College Options/Selections, Career Planning, and critical 21st Century skills.

**Course Content:** The following topics will be covered:

Ballistic Analysis
Blood Spatter
Closing Arguments
Courtroom Decorum
Criminal Courts
Crime Scene Mapping
Critical Thinking
Death Investigation
Deductive Reasoning
Deposition Administration
Direct and Cross Examinations
DNA Analysis
Ethics
Evidence Collection
Experts and Witnesses
Fingerprinting
Opening Statements
Presentation Skills
Problem Solving
Rules of Evidence
Scene Photography
Witness Interviewing

**Readings:** Students will be given approximately 60 pages of college level background reading assignments in law. They will be given approximately 20 additional pages of material to read for the simulation.

**Simulation:** Throughout the course of the program, students will prepare a case for trial. The program culminates when students try their case before coaches who score them on delivery, case analysis, and performance.

**Classroom Activities:** In addition to lecture and discussion, students will:

- Discuss the educational requirements necessary to succeed professionally in crime scene investigation, forensic science and the legal community
- Participate in laboratories and activities designed to introduce students to the hands-on aspect of forensic science
- Develop latent fingerprints using both physical and chemical methods
- Prepare and deliver opening and closing statements
- Prepare and conduct cross and direct examinations
- Prepare and deliver expert witness testimony
- Use courtroom decorum and etiquette in a moot expert testimony simulation

**Off-site experiences:** In addition to trips intended to expose students to the city in which the conference is held, conference participants take trips to some or all of the following: courtrooms, law schools, and museums with legal exhibits. Students attending conferences in the Washington, DC area visit Capitol Hill, the US Supreme Court, and tour the area monuments.

# L.LEA 195 – Law & Trial

**Overview:** This ten day high school conference is a comprehensive introduction to trial law through a unique collaboration with Stanford Law School. Through classroom lecturing, high-profile guest speakers, interactive small-group work, and a mock trial simulation, students will be exposed to a broad array of current issues relating to many dimensions of legal practice and legal ethics. Lectures are presented by college professors, while additional presentations are given by professionals and experts in the topic area. In addition, student's complete LeadAmerica's core curriculum focused on college and career success with an emphasis on College Admissions, College Options/Selections, Career Planning, and critical 21st Century skills.

**Course Content:** Some or all of the topics listed below will be covered:

Burden of Proof Theory
Legal Ethics
Criminal Law
Witness Preparation
Direct Examinations
Cross Examinations
Client Counseling
Careers in Law
Evidence
Objections
Hearsay
Closing Arguments
Appellate Court Structure
US Supreme Court Arguments
Legal Education Planning
*Voir Dire*

**Readings:** Students will be given approximately 150 pages of collegiate-level background reading assignments in trial law and ethics.

**Simulation:** Throughout the course of the program, students will prepare for and execute a mock trial. This mock trial is a former American Mock Trial Association collegiate national trial.

**Classroom Activities:** In addition to lecture and discussion, students will:

- Compete in mock trial scrimmages
- Meet prominent professionals in legal career fields
- Explore the ethical issues raised by both legal precedent and emerging legal issues
- Identify the important role that litigation and law play within the American society
- Develop a personal plan for their future

**Off-site experiences:** In addition to trips intended to expose students to the city in which the conference is held, conference participants take trips to some or all of the following: Federal or State Courtroom and regional universities/law schools.

# L.LEA 195 – Digital Media & Journalism

**Overview:** This seven day high school conference is a comprehensive introduction to the modern art and power of journalism and media. Students will study each major medium of journalism including print, photographic, broadcast and web journalism, while also being introduced to professional opportunities within the field. Lectures are presented by college professors or graduate students, while additional presentations are given by professionals and experts in the topic area. In addition, student's complete LeadAmerica's core curriculum focused on college and career success with an emphasis on College Admissions, College Options/Selections, Career Planning, and critical 21st Century skills.

**Course Content:** Some or all of the topics listed below will be covered:

Broadcast Journalism
Citizen Journalism
Copy Editing
First Amendment
Graphic Layout-Design
Literacy & Propaganda
Media Convergence
News as Entertainment
Print Journalism
Photo Journalism
Pyramid Writing Style
Reporting
Source Evaluation
Web Journalism

**Readings:** Students will be given approximately 50 pages of background reading material on the field of journalism and an additional 40 pages of content material related to program workshops and simulation development.

**Simulation**: Throughout the course of the program, students will utilize the knowledge gained through the workshops and lectures to assist in the production of a digital newspaper.

**Classroom Activities**: In addition to lecture and discussion, students will participate in:

- Attend workshops related to the technical/developmental aspects of journalism.
- Workshops may include but are not limited to the following:
  - Writing Structure
  - Graphic Layout & Design
  - Reporting & Source Evaluation
  - Diversity and Journalism
  - Libel & Copyrights: Journalism and the First Amendment
- Design a digital newspaper and present to a panel of judges for review

**Off-site experiences:** Intended to enrich the academic quality of the conference, while also exposing students to the sights and culture of the surrounding region, conference participants may visit several or all of the following: the CBS Morning Show, NY News Channel 1, NBC Studios, the Paley Center for Media and the NY Film Academy. In Washington, DC, students may visit the Newseum, the National Archives, the Library of Congress, Capitol Hill and USA Today.

# L.LEA 195 - Medicine & Healthcare

**Overview:** This seven to ten day high school conference is a comprehensive introduction to medicine and healthcare. Through classroom lecture, guest speakers, interactive small-group work, and a true-to-life final simulation, students will be exposed to a broad array of current issues relating to the many facets of healthcare. This will include understanding medical techniques, dealing with complex treatment scenarios, and incorporating a patient's health insurance status throughout the duration of care. Lectures are presented by college professors or graduate students, while additional presentations are given by professionals and experts in the topic area. In addition, student's complete LeadAmerica's core curriculum focused on college and career success with an emphasis on College Admissions, College Options/Selections, Career Planning, and critical 21st Century skills.

**Course Content:** Some or all of the topics listed below will be covered:

Admissions Process
Alternative Therapies
Case Management
Critical Thinking
Health Policy
Human Anatomy and Physiology
Hypothesis Building
Immunology
Interview Skills
Medical Ethics
Medical History
Medical Research
Nursing
Public Health
Surgery

**Readings:** Students will be given approximately 80 pages of collegiate-level background reading assignments in medicine, medical policy, and ethics. They will be given approximately 25 additional pages of material to read for the patient simulation.

**Simulation:** Throughout the course of the program, students will interview, examine, diagnose, and treat a (simulated) patient with a serious, life-threatening disease. Issues of insurance, cost, ethics, surgery, medication, patient quality of life, religion, and end of life rights will be encountered.

**Classroom Activities:** In addition to lecture and discussion, students will:

- Manage the care of a standardized patient
- Be introduced to the medical school admissions process
- Perform a neurological exam
- Receive simulated EMT instruction

**Off-site experiences:** In addition to trips intended to expose students to the city in which the conference is held, conference participants take trips to some or all of the following: medical schools and museums with a medicine or science-based theme. Students attending conferences in the Washington, DC area visit Capitol Hill and tour the area monuments.

# L.LEA 195 - National Security & Intelligence

**Overview:** This eight day high school conference is a comprehensive introduction to intelligence and national security for high-performing high school students. Through formal lectures, guest speakers, interactive small-group work and a final simulation, students will gain exposure to a broad array of current issues related to the many dimensions of national security. Lectures are presented by college professors or graduate students, while additional presentations are given by professionals and experts in the topic area. In addition, student's complete LeadAmerica's core curriculum focused on college and career success with an emphasis on College Admissions, College Options/Selections, Career Planning, and critical 21st Century skills.

**Course Content:** Some or all of the topics listed below will be covered:

America's Role in the World
Diplomatic Behavior
Ethics in Intelligence
Evaluation of Intelligence
Human Rights
Intelligence and Diplomatic Agencies
International Crisis Management
Negotiation
Terrorism
Threats to Democracy
US Foreign Policy & Decision Making
US Military
Weapons of Mass Destruction

**Readings:** Students will be given approximately 60 pages of college level background reading assignments in intelligence, defense and national security. They will be given approximately 50 additional pages of material to read for the simulation.

**Simulation:** Throughout the course of the program, students will take part in a United States National Security Simulation. They will play the roles of US intelligence and defense officials to simultaneously address a domestic and international crisis. At the end of the program, students will present a long term National Security Plan to a panel acting as the National Security Council.

**Classroom Activities:** In addition to lecture and discussion, students will:

- Meet with representatives of various diplomatic agencies of the United States
- Engage in Foreign Policy and International Policy Decision Making
- Experience a briefing on national security and defense
- Conduct analysis of various intelligence agencies
- Write and deliver speeches on national security, intelligence and defense policy
- Study current events and formulate a response from a National Security perspective

**Off-site experiences:** Intended to enrich the academic quality of the conference, while also exposing students to the sights and culture of the surrounding region, conference participants may visit several or all of the following: The CIA, Quantico Marine Base, The Pentagon, the International Spy Museum, the United States Naval Academy, Arlington Cemetery, and Capitol Hill.

# L.LEA 195 - Theatre Arts

**Overview:** This seven day high school conference is a comprehensive introduction to the Theatre Arts. Students will learn about the complexities of theater production including set design, costume design, publicity design, playwriting, theatre management, producing, working backstage, and performing. By applying these skills in workshops and rehearsals, students will gain an understanding of each; culminating in the creation of a final performance piece focused on a new work written and performed by the students themselves. Students will be exposed to lectures and guest speakers from prominent members of the theater community as well as utilizing the many learning opportunities available in New York City involving performing arts. Lectures are presented by college professors or graduate students, while additional presentations are given by professionals and experts in the topic area. In addition, student's complete LeadAmerica's core curriculum focused on college and career success with an emphasis on College Admissions, College Options/Selections, Career Planning, and critical 21st Century skills.

**Course Content:** Some or all of the topics listed below will be covered:

Basic Playwriting
Improv Acting
Producing a Show
Publicity and Promotion
Set and Costume design
The Rehearsal Process
Theatre Leadership
Theatre Management

**Readings:** Students will be given approximately 40 pages of background material on the history of the performing arts including a historical progression to modern day theater as well as a comprehensive overview on the complexities of preparing, directing, and performing a show.

**Classroom Activities:** In addition to lecture and discussion, students will:

- Write, rehearse, direct, choreograph, and perform their own short work
- Examine the components of a production through a "behind the scenes" visit to a working Broadway theatre
- Participate in a Performance Writing Workshop facilitated by Young Playwrights Inc.
- Gain exposure to the intimate and vibrant New York Theatre industry

**Off-site experiences:** Students will attend a number of productions (Broadway and potentially Off-Broadway) as well as visiting Ellis Island, Times Square, and South Street Seaport.

# L.LEA 195 – National Leadership Summit

**Overview:** This five to eight day high school conference is a comprehensive introduction to leadership skills development for students seeking to recognize and develop their leadership potential. Through classroom teaching on leadership theory, motivational speakers, and interactive leadership modules, students enhance their abilities to lead in their personal, academic, and professional lives. Lectures are presented by college professors or graduate students, while additional presentations are given by professionals and experts in the topic area. In addition, students' abilities to lead in their personal, academic, and professional lives are enhanced through LeadAmerica's leadership curriculum.

**Course Content:** Some or all of the topics listed below will be covered:

Attitude Shaping
Building Rapport
Communication Skills
Critical Thinking
Goal Setting
Personal Accountability
Self-Confidence
Self-Discipline
Service-based Leadership
Team Building
Time Management
Valuing Diversity

**Readings:** Students will be given approximately 30 pages of collegiate-level background reading assignments on leadership traits, skills, and practices.

**Simulation:** Throughout the course of the program, students will build their leadership skills in order to raise their awareness of their own potential, skills, and ability to affect positive change in the world.

**Classroom Activities:** Students who participate in the conference will:

- Participate in dynamic leadership training focused on developing the skills necessary for successful lives of leadership and service
- Participate in a leadership challenge course (potentially including high ropes elements) designed to enhance personal and team skills as students overcome obstacles and challenges
- Become aware of leadership on multiple levels (personal, community, and global)
- Develop a personal plan to effect positive change on the local, national, and global levels
- Extensively assess personal choices and habits to improve self-management and effective decision making

**Off-site experiences**: In addition to field trips intended to expose students to the city in which the conference is held, conference participants will have learning and leadership challenges associated with leadership focused field trips.

# L.LEA 195 – Government & Politics

**Overview:** This seven to eight day high school conference is a comprehensive introduction to leadership at the national level with a focus on national politics and national defense. Through formal lectures, visiting guest speakers, interactive small-group work and the engagement of current issues, students will be exposed to the challenges and necessities of leadership at the national level. Lectures are presented by college professors or graduate students, while additional presentations are given by professionals and experts in the topic area. In addition, students' abilities to lead in their personal, academic and professional lives are enhanced through LeadAmerica's leadership curriculum.

**Course Content:** Some or all of the topics listed below will be covered:

American Government
Business
Campaign Management
Critical Thinking
Debating Skills
Elections
Foreign Policy
Globalization
Legislative Affairs
Lobbying and Interest Groups
Media and Politics
National Security
The Constitution
Trade

**Readings:** Students will be given approximately 60 pages of college-level background reading assignments in politics and important issue analysis. They will be given approximately 20 additional pages of material to read for the simulation.

**Simulation:** Throughout the course of the program, students will engage in a simulation tailored to provide them with hands on experience as executive, congressional, and national security leaders performing the roles and representing the multi-faceted realm of modern political life.

**Classroom Activities:** In addition to lecture and discussion, students will:

- Engage in a series of Leadership Case Studies on individuals like George Washington and Abraham Lincoln
- Debate current issues and policy initiatives
- Address challenges facing the American business climate
- Practice careful and effective use of language

**Off-site experiences:** Intended to enrich the academic quality of the conference, while also exposing students to the sights and culture of the surrounding region, conference participants may visit several or all of the following: Mount Vernon, AFL-CIO, Supreme Court, the World Bank, Arlington Cemetery, major DC monuments and Capitol Hill. While visiting Capitol Hill, students will have an opportunity to meet with the offices of their senator and/or representative.