



L.LEA 195 - Engineering & Technology

Overview: This eight to 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 Innovation

Overview: This eight 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	Operations
Company Organization	Opportunity Evaluation
Critical Thinking and Analysis	Presentation Skills
Financial Analysis	Product Development
Forecasting	Sales Strategies
Marketing Management	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 – Digital Media, Broadcast & 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	News as Entertainment
Citizen Journalism	Print Journalism
Copy Editing	Photo Journalism
First Amendment	Pyramid Writing Style
Graphic Layout-Design	Reporting
Literacy & Propaganda	Source Evaluation
Media Convergence	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 – Explore Business Fundamentals

Overview: This seven 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	Operations
Company Organization	Opportunity Evaluation
Critical Thinking and Analysis	Presentation Skills
Financial Analysis	Product Development
Forecasting	Sales Strategies
Marketing Management	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 - Medicine & Healthcare

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

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.



L.LEA 195 – Leadership, Ethics, and College Success Forum

Overview: This five 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, 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:

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