

2016 BASIS.ed Charter School Senior Projects

BASIS.ed Senior Projects are a point of pride for students, teachers, parents and staff at our schools, and one of the many unique aspects of the BASIS.ed academic program. Senior Projects offer an opportunity for our students to demonstrate the knowledge and research skills they have developed over their journey at BASIS.ed schools, in a subject area about which they are passionate.

BASIS FLAGSTAFF

The Fault in Our Foods: Epidural Nerve Fiber Change in High-Fat Induced Painful Neuropathy
Unraveling The Early Universe: Will Gravitational Waves Help Us Detect Cosmic Strings?
Reasonability Sustainability
Bubbles and Biofilms: The Effects of Common Dishwashing Liquids on Human Gut Flora
Latin, What is it Good For?
Faulty Forensic Evidence and False Convictions
Planetary Image Matching
Performance Testing of Model for a Robotic Prosthesis
The Most Effective Coaching Styles for Children in Swimming
Monitoring Various Styles of Active Volcanism: Comparing Case Studies from Alaska and Hawaii to Determine Best Practices for the San Francisco Volcanic Field
Water Conservation Through Youth Education
Pain Management: A Little More Than Nsaids

BASIS SCOTTSDALE

Racism Bred from War: How Occupation Affected American Soldiers' Perception of Occupied Subjects in Japan and Iraq
A Comparative Analysis of Hidden Markov Models, Principal Component Analysis, and Kalman Filtering in Accelerometer-Based Impact Detection Systems
Educating Patients on the CRC Screening Health Care Process
What's A Jew To Do? An Investigation of Identity and its Displacement in Post-Soviet Russian Literature
Barbies and Building Blocks: An Exploration of Peer Pressure and Gendered Toys
Teamwork in the Trench: Exploring Teamwork Processes
In Randomized Dota 2 Teams
Selection Protocols for PCA Pumps: Overlooked or Unnecessary?
Food Fight: The Inefficiencies within Food Aid Systems Present in the Middle East and Sahel
Rage Against the Marquee: An Observational Study of Aggression in a Concert Setting
Equilibrium Strategies of a Prize Variant of Combinatorial Bidding Games
Shedding Light on Dark Matter Particles
Taking a Macroscopic Look at Microscopic Defects: A Relationship Between the Surface Energy of a Si Wafer and the Fraction
Campaign Finance Reform and its Ethical Implications on the American Electoral Process
Boy Meets Girl: Catholic Teens' Perception of Marriage Theology

BASIS SCOTTSDALE (CONT'D)

Nutritional and Regulatory Problems with School Lunches: Who's Responsible?
Compose Yourself: An Inquiry into the Role of Emotion in the Musical Creative Process
Shady Software: An Investigation into Android Security
American Arbitration: A Look at Foreign Implementation of Western Political Systems
Breaking Bad Sentencing Guidelines: An Analysis of Mandatory Minimum Sentencing and Drug Rehabilitation
Not a Laughing Matter: Insights on the Portrayals of Black Females in Comedy Television
Sunshine in Saitama: A Bilingual Journey through Education and Musical Theatre
Reading Colors: Synesthesia in Russian and American Literature During the Late 1800S and Early 1900S
Physical Therapy: The Art of Rehabilitation?
Ironing Out the Differences: Acculturation and Iron Intake in Mexican-Americans
Great Minds Blink Alike: How Spontaneous Blink Rate Indicates Risky Decision Making
Straight Outta Carbon: An Analysis of Renewable Microgrid Simulations
The Good, the Bad, and the Guilty: Media Portrayal of Rape Culture in America and India
Nuclear Proliferation in Iran
Kinases and Cancer: Olig2/Fyn's Tumorigenic Interaction
Stress Relief: The Relationship Between Yoga and Baha'i Prayer
Thirst: The Desperate Need for Water Sustainability

BASIS ORO VALLEY

Music Production and the Pursuit of a Musical Career
Exploring The World of Dentistry
Perceptions of Eastern and Western Education Styles
Creating a Phi-Bit
An Internship in Oncology
Young People and News Media
Tiny Infants, Big Needs: An Internship in Neonatology
Are Miticides Hurting Our Bees?
Infrastructure Vs. Environment: What Needs to Change?
Embedded Systems Development
Integrative Medicine and Meditation
From Tucson to Seoul: Trauma Systems and its Importance
Breaking Bonds: The 2015 Election Investigation
The War Against Algae Growth
Creating a Collaborative Study Tool
It's Campaign Season Again: An Analysis of Campaign Progression
The Production of a Song
The Basis.ed Movement: Discovering its Heart

BASIS PHOENIX

Allocation of Time Spent in an Accounting Firm
Nephrology's Hidden Nemesis: A Look into the BK Virus and its Relation to Immunosuppressive Agents
The Evolution of Medicinal Cannibalism in Britain
Little Changes for a Big One: Analyses of Artificial Molecules for Fuel Production
Modification of Gene Expression and Radioresistance Following Single Versus Fractionated Doses of Radiation in Prostate Cancer Cell Lines
Production and Marketing in Medicine and Education
The Effects Of Epigenetics on Schizophrenia

BASIS PEORIA

Are Students in High Stress Environments More Prone to Sleep Problems?
I have "Violin" Tendencies: Teaching Through the Beginner's Eyes
What "Is" in Islam
Caring for the Future
An Investigation of Local Government
Engineers are the Real Mvp's
Caring vs. Corporate: The Roles and Methods of Nonprofits in Low Income Neighborhoods
The Musical Key to Our Brain
Ensuring Safety of Medical Devices for Human Implant
Ayurvedic Medicine: Do Plants have the Ultimate Power Over Chemicals?

BASIS CHANDLER

Tangles and Plaques In Alzheimer's
Purification of Telomerase
The Business Campaign for Asu's Baja Team
Making Data-Driven Decisions in Design and Production Environments
Evaluating And Managing Airline Resources Through Computer Science and Communication Enhancements
A Look at Advancements in Battery Technology
Automotive Suspension Systems: Beyond the Springs
Developing A Self-Administered Finger Prick Blood Collector for Medical Countermeasure Against Radiation
Page Rank Algorithm Implementation in the Apache Spark Cloud Computing System for use in Big Data Analysis
Impact of Riluzole on Synaptogenesis
The Quantification of Neuroligand-1 And Glypican-4 in Diffuse Tbi Tissue in the Memory Related Areas
Question–Answering using Knowledge Description Graphs and Freebase
Metal Organic Frameworks (Mofs): Analyzing Properties and General Applications
Music Therapy in Action

BASIS CHANDLER (CONT'D)

Digital Marketing: The Importance of Content Creation and Promotion in Modern Day Business
A Look into the World Of Journalism
Enhancing the Efficiency of Solar Water-Splitting Technology
Analyzing the Impact of Stimuli on Thermoregulation Response and Behavior Modification
Risk Tolerance and Market Volatility: Analyzing Investment Return in Current Economic Conditions
Building a Car: Analyzing the Parts and Considerations Needed to Succeed in Endurance Racing
An In-Depth Look at Voting Patterns Through the Lens of the Bernie Sanders Campaign
A Peek Into the Entrepreneurial World via the Gaming Market in Arizona
Competition-Based Learning with the Baja Sae
Postpartum Depression: A Concern and Part of the Job
Youth Perspective on Start-Up App Marketing
Attitudes of High School Students toward Mental Illness
The Glycemic Response
Analyzing the Electronic Medical Data System
The Identification and Analyses of Insulin-Resistant Genes
The Utilization of a Novel Genome-Editing Technique to Study Select Neural Ion Channels
Wrongful Convictions in Criminal Cases

BASIS TUCSON NORTH

Analyzing the Integration of Theatre Departments
Trauma, Diabetes, and Resiliency
Non-Standard Quantum Mechanics
Ameliorating the Problem of Stray Cats and Dogs
The Human Body: Nutrition, Digestion, and Exercise
Social and Economic Benefits of Urban Farming
Phlebotomy Practice And Procedures
The Effect of A Non-Canonical Poly(A) Polymerase, Pqn-44, on *Caenorhabditis Elegans*
Stress Physiology
Digitizing Mineral Occurrences in Cuba using Geographic Information System
Behind Space
Development of a Space Radio Observatory for Mapping Cold Molecular Gas
The Progression of Environmental Awareness through International Rivers
The Conflict and Compromise of Mechanical Engineering And Industrial Design in the Product Design Process
Effects of inVitro Fertilization on Babies
Building a Thing: Constructing and Programming an Electrical Device