Discovery Day 2010
Congratulations to our Award Winners!

Creative and Oral Presentations:

CREATIVE ARTS
1. Sydney Mitchell, Theatre, Senior
   Prof. Robert Bourne, Theatre and Dance
   *Lorca: Environmental for a Modern Audience*
2. Lauren Koch, Theatre, Sophomore
   *Stage Combat: A Microscope on Acting*
2. Jennifer Miller, Theatre, Senior
   Dr. Victor Holtcamp, Theatre and Dance
   *Documentary Theatre*

EDUCATION
1. Nessa Kerr, Art History, Senior
   Dr. Lara Ducate, Languages, Literatures, and Cultures
   *Comparing American and German Arithmetic Teaching Techniques*
2. Sara Winn, Chemistry, Senior
   Dr. Krista van Fleit Hang, Languages, Literatures, and Cultures
   *The Neglected Use of Chinese Language within Chinese Medical Colleges of the United States*

HUMANITIES & SOCIAL SCIENCES I
1. Kayla Pohl, English, Senior
   Dr. Debra Rae Cohen, English Language and Literatures
   *Virginia Woolf and Modernist Metafiction*
2. Jason Byrd, Accounting, Senior
   Dr. Scott Gwara, English Language and Literatures
   Dr. George Khushf, Philosophy
   *Exploring Bivalence in the World of Beowulf through a Card Game*

HUMANITIES & SOCIAL SCIENCES II
1. Brady Tyra, Classics, Junior
   Dr. Hunter Gardner, Languages, Literatures, and Cultures
   *The Evolution of Iconography and Inscriptions on Greco-Roman Numismatics*
2. Christopher Young, Anthropology, Senior
   Dr. Joanna Casey, Anthropology
   *The Availability and Selection of Stone Tool Raw Material in Relation to the Johannes Kolb Archaeological Site (38DA75)*
NATURE & THE ENVIRONMENT
1. Lesley Joseph, Civil and Environmental Engineering, Junior
   Dr. Sacoby Wilson, Epidemiology and Biostatistics
   How can Sustainability Lower the Negative Effects of Climate Change for African-Americans?
2. Chase Dunn, Mechanical Engineering, Junior
   Dr. Ann Johnson, History
   Engineering the Global Climate: Policy and Technological Interventions

POLITICS & BUSINESS
1. Frank Turek, Political Science, Senior
   Dr. Charles Finocchiaro, Political Science
   The 17th Amendment and its Congressional Impact
2. Jeet Guram, Interdisciplinary Studies, Senior
   Dr. Melayne McInnes, Economics
   USC Offers a High-Deductible Health Insurance Plan: Implications for Risk Pools & Medical Spending

PSYCHOLOGY & SOCIAL SCIENCES
1. Meredith James, Psychology, Senior
   Dr. Jane Roberts, Psychology
   Intervention Without Evidence: Current Practice of Sensory Intervention for Students with Autism in Columbia, SC
2. Lauren Ballina, Psychology, Senior
   Dr. Steven Harrod, Psychology
   Intravenous Gestational Nicotine Increases Adult Rats’ Motivation for Sucrose Reward

SCIENCE, ENGINEERING, & COMPUTING
1. Cristina Kubicki, Chemical Engineering, Junior
   Dr. Oleg Alexeev, Chemical Engineering
   Dr. Michael Amiridis, Provost
   Synthesis of Dendrimer-Stabilized Rh Nanoparticles in Solution
2. Hudson Harper, Mathematics, Junior
   Dr. Matthew Boylan, Mathematics
   Ramanujan Congruences for Partition Related Eta-Quotients
2. Maliek Mcknight, Computer Science, Sophomore
   Dr. Shrihari Nelakuditi, Computer Science and Engineering
   Using Android Powered Smartphone Devices to Gather and Plot Aggregate User GPS Data

SOCIAL PERCEPTIONS & CULTURAL IDENTITY
1. Eric Ruppe, French, Senior
   Dr. Elaine Chun, English Language and Literatures
   Indices of Social Perceptions: /s/-Duration and Word-Final /t/
2. Daniel Hains, Social Work, Sophomore
   Lauren Fowler, Psychology, Junior
   Dr. Bret Kloos, Psychology
   Advocating Homeless Students in Richland One
Poster Session:

ARTS, HUMANITIES, & CULTURE
1. Bradley Abromaitis, History, Senior
   Dr. Kathryn Edwards, History
   Apparitions of the Dead and Catholic Reform in Early Modern Europe
1. Gabrielle Peterson, Theatre, Junior
   Prof. Robert Bourne, Theatre and Dance
   Tales of Scottish Lore for American Children’s Theatre

BIOMEDICAL SCIENCES & ENGINEERING I
1. Rachael Weigle, Biological Sciences, Senior
   Dr. Dan Dixon, Biological Sciences
   The Effects of HuR Overexpression on Cell Proliferation and Angiogenesis in a Mouse Model of Colorectal Carcinogenesis
2. Emily Matherly, Biomedical Engineering, Junior
   Dr. Melissa Moss, Chemical Engineering
   Role of P-glycoprotein in the transport of amyloid-β protein in cerebral amyloid angiopathy

BIOMEDICAL SCIENCES & ENGINEERING II
1. Ryan Cassaro, Biomedical Engineering, Junior
   Dr. Esmaiel Jabbari, Chemical Engineering
   Functional Self-Assembled Poly(Lactide-co-Glycolide) Fumarate Nanoparticles as Carriers for Targeted Tumor Delivery
2. Romone Fancy, Chemistry, Senior
   Dr. James Blanchette, Chemical Engineering
   Establishment of Optimal Tissue Encapsulation Conditions for Islet Models

CHEMISTRY, PHYSICS, & ENGINEERING I
1. Corey Lucas, Chemistry, Senior
   Dr. Donna Chen, Chemistry and Biochemistry
   The Characterization and Chemical Activity of Ni-Au and Pt-Au Bimetallic Clusters on TiO2(110)
2. Micheline Goulart, Chemistry, Junior
   Dr. Stephen L. Morgan, Chemistry and Biochemistry
   Capillary Electrophoresis for the Forensic Identification of Fluorescent Brighteners on Trace Evidence Fibers
CHEMISTRY, PHYSICS, & ENGINEERING II
1. **Alexander Gulledge, Chemistry, Senior**  
   Dr. Brian Benicewicz, Chemistry and Biochemistry  
   *A New Polybenzimidazole Derivative for High Temperature PEM Fuel Cells*
2. **David Coats, Electrical Engineering, Senior**  
   Dr. Abdel Bayoumi, Electrical Engineering  
   Dr. Yong-June Shin, Electrical Engineering  
   *Advanced Time-Frequency Mutual Information Measures for Condition Based Maintenance of Helicopter Drive Trains*

COMPUTER SCIENCE & ENGINEERING
1. **Nicole Tobias, Computer Science, Senior, USC Upstate**  
   Dr. Sebastian van Delden, Mathematics & Computer Science, USC Upstate  
   *A Novel Robotic Approach to Contour Recovery Using Structured Light*
2. **Travis Taylor, Computer Information Systems, Sophomore**  
   Dr. Wenyuan Xu, Computer Engineering  
   *The Feasibility of Injecting False Information to the Tire-Pressure Monitor System of Automobiles*

MEDICAL & HEALTH SCIENCES
1. **William Parker, Pharmacy, Senior**  
   Dr. Scott Sutton, Pharmacy  
   *Evaluating Vancomycin’s Pharmacokinetic Variability and Implications of Predicting Serum Concentrations*
2. **Kendra Manigault, Pharmacy, Senior**  
   Dr. Scott Sutton, Pharmacy  
   *Clinical and Economic Outcomes of Concurrent Use of Clopidogrel and Proton Pump Inhibitors*

NATURAL & ENVIRONMENTAL SCIENCES I
1. **Azka Nazir, Biological Sciences, Junior**  
   Dr. Johannes Stratmann, Biological Sciences  
   *Systemin as a Defense Response Eliciting Component in the Oral Secretions of Manduca Sexta Larvae*
2. **Kyra Marsigliano, Marine Science, Sophomore**  
   Dr. Joseph Quattro, Biological Sciences  
   *Building a DNA Barcoding Database for Atlantic Billfishes*

NATURAL & ENVIRONMENTAL SCIENCES II
1. **Grace Maze, Marine Science, Senior**  
   Dr. Alexander Yankovsky, Earth and Oceans Sciences  
   *Buoyant Plume from Multiple Sources of Freshwater in the Presence of Cyclonic Wind Field*
2. **Erin Fedewa, Marine Science, Sophomore**  
   Dr. Tammi Richardson, Biological Sciences  
   *Phycocerythrin Extraction and Storage*
NEUROSCIENCE
1. Brice Kessler, Biological Sciences, Senior
   Dr. Jim Fadel, Pharmacology, Physiology and Neuroscience
   *Orexin Neuron Populations in Young and Aged Rats: A Stereological Analysis*
2. Eric Robinson, Biological Sciences, Senior
   Dr. Sarah Sweitzer, Pharmacology, Physiology and Neuroscience
   *Neonatal Exposure to Alcohol Alters Spinal Cord Innervation*

PSYCHOLOGY & PUBLIC HEALTH
1. Kayla Butler, Nursing, Senior, USC Aiken
   Dr. Lou Gramling, Nursing, USC Aiken
   *African American Women’s Perception of the Relationship between Cultural Eating Habits and the Increased Occurrence of Type 2 Diabetes Complications*
2. Kellie Sharpe, International Studies, Senior
   Dr. Myriam Torres, Epidemiology and Biostatistics
   “*The P.A.N. of Latino Children*” (Physical Activity and Nutrition)

PSYCHOLOGY, GENERAL
1. Krista Lange, Psychology - Senior; USC Aiken
   Dr. Edward Callen, Psychology; USC Aiken
   *The Effects of Response Prevention on the Development of Activity-based Anorexia in Rats*
2. Elyse Coolidge, Chemistry, Senior
   Dr. Patrick Nolan, Sociology
   *Higher Education: Understanding Undergraduate Prescription Stimulant Abuse*

SOCIAL SCIENCE & BUSINESS
1. Emily Hartley, International Business, Senior
   Dr. Robert Rolfe, International Business
   *Average Per Capita Income Earned in Townships of Cape Town, South Africa*
2. Amanda Tatum, International Studies, Senior
   Prof. Van Kornegay, Journalism and Mass Communications
   *Developing a Strategic Communications Plan for Promoting Community-Based Orphan Care in Malawi, Africa*

SOCIAL SCIENCE & EDUCATION
1. Danielle Tice, Pharmacy, Senior
   Dr. Brandon Bookstaver, Pharmacy
   *Pharmacy Residents Ability to Evaluate Medical Literature and Biostatistics*
2. Ashley Chase, Marine Science, Senior
   Dr. Tammi Richardson, Biological Sciences
   Dr. Nancy Freeman, Educational Studies
   *Development and Implementation of a Preschool Curriculum Unit in Ocean Biology*