



## 2014 ENGAGED LEARNING PROJECTS

### 69 PROJECTS

**New projects = 49; Continuing Projects = 20**

**... 25 COUNTRIES**

Australia, Bangladesh, China, England, Ethiopia, France, Greece, India, Indonesia, Ireland, Israel, Italy, Jordan, Latvia, Panama, Peru, Russia, Rwanda, Scotland, Spain, Switzerland, Tanzania, United States, United Arab Emirates, Vietnam

### RESEARCH (32)

1. Camille Biard, SMU '15, is using computational chemistry methods to study chemiluminescent mechanism to develop new molecules that can emit luminescence for a long period of time and be delivered to the human body to probe cancerous cells. (Major: CHEM; Mentor: Dr. Peng Tao)
2. Christopher Carrillo, SMU '15, is planning to perform an economic assessment of a community in the Bugesera district in Rwanda to determine the sustainability of various water development projects. (Major: CEE; Mentor: Dr. Thomas Osang)
3. Tien Dang, SMU '16, will compare, contrast, and analyze the way Balinese women in Bali, Indonesia and Balinese women in Los Angeles, California react to advertisements depicting gender objectification. (Major: ADV; Mentor: Dr. Carrie La Ferle)
4. Rahfin Faruk, SMU '15, will use a rational choice model to analyze how Bangladeshi economic decisions were influenced by U.S. foreign policy (Major: ECON, PLSC, PP, RELI; Mentor: Dr. Hiroki Takeuchi)
5. Tyler Friske, SMU '15, while shadowing physicians in Iringa, Tanzania, plans to gain insight into the standards and practices of African hospitals, the extent to which modern medicine is used and how it can be promoted. (Major: ME; Mentor: Mr. Caleb Marsh)
6. Katelyn Gough, SMU '15, plans to put forth a recommendation regarding the Syrian refugee crisis within the context of Jordanian security and international affairs through her on-site research in Jordan. (Major: JOUR, THEA, PLSC; Mentor: Dr. James Hollifield)
7. Maggie Hagen, SMU '15, is studying granitic bodies, called plutons, along the Ivrea-Verbanio zone in Northwestern Italy and their origins that assembled 278-289 million years ago. (Major: GEOL, ANTH; Mentor: Dr. James Quick)
8. Mehdi Hami, SMU '15, through research of France's health care system, is now exploring its relationship to French eating habits and nutrition and plan to interview French citizens to expand his work. (Major: BIOL, PLSC; Mentor: Ms. Carina Heckert)
9. Sana Hamirani, SMU '15, is researching the hospitality sectors in Dallas, Texas and Dubai, United Arab Emirates to obtain insight on how popular hotels in each of these locations market the industry's image to increase the bottom line and client retention. (Major: MKTG; Mentor: Mr. Charles Besio)
10. Mark Honrales, SMU '16, is developing a detailed biochemical mechanism for ATP hydrolysis of PGP. (Major: BIOCHM, FINA; Mentor: Dr. Peng Tao)
11. Hilary Hopkins, SMU '15, is researching the structure and function of circadian clock protein Envoy, then will publish findings in a scientific journal and present research at the Gordon Research Conference for Photosensory Receptors & Signal Transduction in Barga, Italy. (Major: BIOCHM; Mentor: Dr. Brian Zoltowski)
12. Raamis Khwaja, SMU '15, will research water contamination in a north Indian slum located in Aligarh, India, and come up with a solutions model for combating the spread of bacteria and chemical pollutants in drinking water. (Major: BIOCHM; Mentor Dr. Andrew Quicksall/Dr. Carolyn Smith-Morris)
13. Dalton Kim, SMU '15, is preparing novel inorganic polymers which may serve as antimicrobial coatings for metal surfaces. (Major: CHEM, BIOL; Mentor: Dr. Patty Wisian-Neilson)
14. Alaina Leggette, SMU '15, using her own personal experience as a pre-med student, is surveying medical school applicants and analyzing data of med school statistics to identify best practices to get into medical school. (Major: BIOL, ECON; Mentor: Mr. Caleb Marsh)
15. Jewel Lipps, SMU '15, is surveying forest composition to identify and characterize riparian forest communities within the Great Trinity Forest at the Trinity River Audubon Center (TRAC) and from this data will determine their successional stages. (Major: ENVIS, CHEM; Mentor: Dr. Bonnie Jacobs)
16. Abigail Marchesseault, SMU '15, is learning traditional Balinese dance in order to ultimately identify pedagogical similarities and difference of methods employed by instructors. (Major: DANC, APSM; Mentor: Ms. Anne Westwick)

17. Mindy McClean, SMU '15, is creating and will provide a necessary, reliable, and stabilizing environment for the isolated membrane enzyme, P-glycoprotein using lipid nanodiscs. (Major: BIOL, CHEM; Mentor: Dr. Pia Vogel)
18. Hadley McPherson, SMU '15, is placing motion-activated cameras in the Trinity River Forest in order to photograph wild mammals and promote conservation, will obtain valuable ecological data to be used to calculate population sizes and identify individual animals. (Major: BIOL, ENVS; Mentor: Dr. Louis Jacobs)
19. Mayisha Nakib, SMU '15, is investigating the ability of radon progenies to stick to copper surfaces in various environments to help understand background sources in experiments that search for dark matter and neutrinoless double beta decay. (Major: PHYS, MATH; Mentor: Dr. Jodi Cooley)
20. Ashley Romo, SMU '15, has developed and will carry out an observational case study of a physician in Panama and in the U.S. to examine similarities and differences in medical practice of two cultures. (Major: BIOL, PSYC; Mentor: Dr. James Calvert)
21. Tyrell Russell, SMU '16, is researching and will assess the activity of inhibitors of P-glycoprotein in sensitizing triple negative breast cancer cells to various chemotherapeutics. (Major: BIOL; Mentor: Dr. John Wise)
22. Nicholas Saulnier, SMU '15, is using MEMS technology to design, build, and test a system that harvests energy from the environment and uses that energy to perform an essential function. (Major: EE; Mentor: Dr. Milton Gosney)
23. Jazmin Vazquez, SMU '15, comparing and contrasting airbrushing in advertising and the self-concept of women in the United Kingdom and the United States, plans to examine two cultures' definition of beauty and use that information to enlighten SMU college students. (Major: ADV, COMM; Mentor: Dr. Carrie La Ferle)
24. Macartney Welborn, SMU '15, is creating multifunctional thiols from the reaction between chlorosilanes and mercaptoalcohols, allowing for greater flexibility in regards to practical applications. (Major: BIOL, CHEM; Mentor: Dr. David Son)

### **Continuing 2013 Research Projects**

25. Kevin Bruemmer, SMU '15, is developing original <sup>13</sup>C MRI contrast agents to detect chemical species important in clinical and biological processes. (Major: CHEM; Mentor: Dr. Alex Lippert)
26. Aaron Chu, SMU '15, is evaluating the performance of the iFlame laser transmitter before, during and after irradiation to examine its viability for usage on the Large Hadron Collider in Switzerland. (Major: ME; Mentor: Dr. Annie Xiang)
27. Preston Hutcherson, SMU '15, enrolled in the same humanities course at two institutions, SMU and Richland College, to be able to answer to what extent is the value of a course tied to the amount we pay for it. (Major: ENGL; Mentor: Dr. Tim Cassedy)
28. Janice Kim, SMU '15, is assessing the health and cancer literacy of Vietnamese women and will explore various sources from which these women are able to obtain their health information. (Major: BIOL; Mentor: Dr. Smith-Morris)
29. Christina Lollar, SMU '15, is researching sulfur ylide chemistry along with isatins and with this will develop a novel sulfur ylide mediated synthetic technique for the preparation of isatin derivatives. (Major: CHEM, FREN; Mentor: Dr. Lippert)
30. Kyle Nakatsuka, SMU '15, is researching urban revitalization in communities with deep socioeconomic needs and strong movements towards cultural self-determination, comparing contemporary Native American communities of Taos and Hawai'i. (Major: BIOL, SPAN, LAAM, HRTS; Mentor: Dr. Mike Adler)
31. Gabriella Padgett, SMU '15, is exploring the development of the organic and local food movements in Beijing, China. (Major: MATH, CRCOMP; Mentor: Dr. Ira Greenberg)
32. Anish Patel, SMU '15, is researching the functionalization of carbosilane-thioether dendrimers. (Major: BIOCHEM, MATH; Mentor: Dr. David Son)

### **COMMUNITY SERVICE (18)**

1. Kelly Kiser, SMU '15, is developing a sustainable EMS education program on campus and will oversee the continuation of Operation HeartSafe (Major: BIOL, SPAN; Mentor: Mr. Lee Arning)
2. Matthew Mozden, SMU '15, is developing a sustainable aquaponics system for low-income neighborhoods in the Dallas area. (Major: ME, MATH; Mentor: Dr. Elaine Heath)
3. Stephanie Newland, SMU '15, is exploring whether involvement in the Jesters Program benefits participants with intellectual and/or physical disabilities, their parents, and program volunteers. (Major: BIOL, SPAN; Mentor: Dr. Stephanie Al Otaiba)
4. Hena Rafiq, SMU '16, is developing a comprehensive resource kit to help previously incarcerated women successfully reenter society. (Major: PLSC, PR; Mentor: Mr. Charles Bittner)
5. Lisa Raizes, SMU '15, is promoting intercultural understanding between Ethiopian-Israeli youth and Israeli youth with The Unity Project. (Major: MKCL; Mentor: Dr. Debra Branch)

6. Asia Rodgers, SMU '15, is using art therapy to humanize and build confidence in women who have been victims of sex trafficking (Major: HRTS; Mentor: Dr. Elizabeth M. Wheaton)
7. Maxwell Schauer mann, SMU '15, is creating a self-sustaining recycling effort, Cans for Kids, which will benefit pediatrics research through the donation of the recycling proceeds. (Major: RE Pre-Med; Mentor: Ms. Jomita Fleming)
8. Jaime Sisson, SMU '15, is creating an English literacy and citizenship preparation program for staff employees at SMU. (Major: SPAN; Mentor: Ms. Linda Evans)
9. Justin Thomas, SMU '15, is developing a health education program aimed at children through community surveys of current eating and exercise habits coupled with investigation into currently offered community health and education resources in West Dallas. (Major: PSYC; Mentor: Ms. Regina Nippert)
10. Courtney Thrower, SMU '15, is working with Global Medical Brigades to develop a cultural study of nutritional habits and customs of marginal community in Panama and, while there, plans to conduct a lecture on nutritional health. (Major: BIOL; Mentor: Ms. Megan Knapp)

### **Continuing 2013 Community Service Projects**

11. Julianna Bond, SMU '15, is developing a viable model of organic and sustainable micro-farming techniques as part of the SMU Community Garden project. (Major: MNO; Mentor: Dr. Elaine Heath)
12. Hanan Hassan, SMU '15, volunteering with Vision on Africa, is developing a life skills tool kit of basic business concepts as a result of working with economically deprived women and youth of Yeka sub-city, Ethiopia. (Major: ACCT, ENGL; Mentor: Dr. Maribeth Kuenzi)
13. Danielle Katz, SMU '15, is using her Spanish skills and education minor to volunteer at an over-populated kindergarten in Cuzco, Peru through the non-profit UBELONG. (Majors: SPAN; Mentor: Dr. Renata Égüez)
14. Richard Nixon, SMU '15, is expanding a group microfinance project into Vickery Meadow with the creation of business development workshops. (Major: ME; Mentor: Mr. Jim Bryan)
15. Derek Phanekham, SMU '15, is working on the SMU Community Garden project with the intent to develop it as an interdisciplinary learning site to learn about viable, small scale agricultural models transferable to blighted urban neighborhoods. (Major: CSE, MATH; Mentor: Dr. Elaine Heath)
16. Daisuke Takeda, SMU '15, is expanding Green Riba, an e-commerce and traditional micro-finance storefront, to connect West Dallas and SMU-based artists to larger, national markets. (Major: FINA; Mentor: Ms. Regina Nippert)
17. Ashley Wali, SMU '15, worked with the Nari Project in Bangladesh and Genesis Women Shelter in Dallas to address needs of women suffering from domestic violence and is now assessing the effectiveness of the kits she disseminated to both groups of women. (Major: FINA, FASHMD; Mentor: Dr. Rick Halperin)
18. Lucy Yu, SMU '15, returning to work with Medical Brigades in Panama this summer, is coordinating a doctor shadowing program for SMU pre-health students with the intent to develop a SMU Medical Brigades student organization. (Major: MATH, CHEM; Mentor: Ms. Miroslava Detcheva)

### **INTERNSHIPS (1)**

1. Gopika Shah, SMU '15, while interning at international anti-trafficking agencies in India and the U.S., is comparing policy effects on non-profit restoration and victim aftercare. (Major: ECON, PLSC; Mentor: Dr. Elizabeth Wheaton)

### **CREATIVE WORK (18)**

1. Emily Bernet, SMU '16, as a result of participating in the SMU-in-London program, plans to create a dance piece integrating the unique creative vibrancy of London's underground culture and explore the way it inspires art and performance. (Major: DANC; Mentor: Dr. Shelley Berg)
2. Madeline Dockery-Fuhrmann, SMU '15, is researching ensemble building and devised theatre while in Greece, and then will return to SMU to lead her own ensemble of SMU theatre students and collaboratively create a comparable performance for a SMU audience. (Major: THEA; Mentor: Dr. Gretchen Smith)
3. Ariana Howell, SMU '15, is creating a performance piece which focuses on the effects of modernism on native Australians, with a special focus on conservation and wildlife as it pertains to indigenous religious practice and philosophy. (Major: THEA; Mentor: Dr. Gretchen Smith)
4. Geenah Krisht, SMU '15, is the producer for *Legacy*, a film written, directed and crewed entirely by student for SMU's Summer Film Program. (Major: JOUR, FILM; Mentor: Dr. Mark Kerins)

5. Kristen Lee, SMU '15, is developing and scripting a multi-media performance of the Korean War through the lens of her grandfather's experience. (Major: THEA; Mentor: Dr. Gretchen Smith)
6. Diane Liu, SMU '15, is investigating how the modern Gaga dance movement relates to Israeli folk dance, and its ties with the modern dance scene in China. (Major: DANC; Mentor: Dr. Shelley Berg)
7. Stephanie Machado, SMU '15, is researching and will observe how guides of ghost tours in London engage their audiences in unconventional spaces as performers while studying abroad in London, and upon return to SMU will create a performance piece that uses similar conventions, breaking down the wall between actors and audience. (Major: THEA; Mentor: Dr. Gretchen Smith)
8. Ryan-Patrick McLaughlin, SMU '15, is creating a performance piece based on careful observation and interviews that interrogate the way Londoners think about and experience gender. (Major: THEA; Mentor: Dr. Gretchen Smith)
9. Jackson McMartin, SMU '15, is the editor for *Legacy*, a film written, directed and crewed entirely by student for SMU's Summer Film Program. (Major: FILM, MKTG; Mentor: Dr. Mark Kerins)
10. Jacob Nice, SMU '15, is exploring the customs and practices of an international touring theatre company. (Major: THEA; Mentor: Dr. Gretchen Smith)
11. Daniel Pappas, SMU '15, acting as sound editor, will be capturing, mixing, and recording audio for *Legacy*, a film written, directed and crewed entirely by student for SMU's Summer Film Program. (Major: FILM; Mentor: Dr. Mark Kerins)
12. Natalia Perea, SMU '15, will create an exhibition at SMU utilizing poetry and photography, based on investigation into Flamenco as cultural history of Spain. (Major: DANC, ENGL; Mentor: Dr. Shelley Berg)
13. Olga Romanova, SMU '15, during her travel to her home country, is documenting the Latvian emigration and post-economic crisis situation, producing a body of photojournalistic work. (Major: ART; Mentor: Dr. Debora Hunter)
14. Ally Van Deuren, SMU '15, is creating an online resource for the SMU and Dallas communities at large in order to promote the interests of the Dallas arts community. (Major: THEA, JOUR; Mentor: Dr. Gretchen Smith)

#### **Continuing 2013 Creative Work Projects**

15. Kathleen Gaskins, SMU '15, used her time in the London Arts program to lay the foundation of a creative performance piece called the Universal Language of Art. (Major: THEA, JOUR; Mentor: Dr. Shelley Berg)
16. Thomas Kennedy, SMU '16, is developing a web server for iGiddyUp, an iOS application which will improve the efficiency of the SMU Giddy Up system. (Major: CSE; Mentor: Dr. Mark Fontenot)
17. Patrick Leopard II, SMU '16, is developing an implementation plan for iGiddyUp, iOS application which will improve the efficiency of the SMU Giddy Up system. (Major: CSE, MATH; Mentor: Dr. Mark Fontenot)
18. Mei Mei Pollitt, SMU '15, having attended the Festival D'Avignon and the Fringe Festival last summer, created a solo performance and began the database of contemporary international theatre for the Meadows community, which she will add to as she researches at the International Foundation for Theatre Education and Research in Moscow this summer. (Major: THEA, FREN, RUSS; Mentor: Dr. Gretchen Smith)