OMISSION FROM FACULTY ACCOMPLISHMENTS LIST


OMITTED FROM PRINTED PROGRAM

Wade Smith
Project advisor: Dr. Heidi Storl, philosophy
SESSION I-B-4: Hanson 304 (11:15-11:30 a.m.)
Quantification of Ki-67 and CASP3 in Benign and Malignant Breast Cancer Tissues
Breast cancer is the 2nd leading cause of cancer deaths in women. There are currently several risk assessment models that determine a woman’s chance of developing breast cancer by considering factors such as age, race, age at menarche, and BRCA mutations. However, none of these models have incorporated biomarkers unique to breast cancer since such biomarkers have not been definitively identified yet. Ki-67 and Caspase-3 (CASP3) are proteins that play important roles in cell cycle progression that have yet to be correlated with breast cancer. Immunohistochemical staining is a useful tool to identify the presence of specific proteins such as Ki-67 and CASP3 in tissues. However, some cases of staining can be difficult to read and lead to disagreement between pathologists. ImageJ is an open-source software that can provide physicians with the tools to obtain consistent and accurate readings for protein expression. Using benign and cancerous tissue samples collected from 375 patients, expression of Ki-67 and CASP3 was quantified using ImageJ and compared to manual predictions by pathologists to assess the accuracy and reliability of the software. These expressions were also correlated to variables such as hormone receptor expression, race, and age. The results of this study indicate that Ki-67 is more highly expressed in malignant tissues compared to benign ones while CASP3 is more highly expressed in benign tissues compared to malignant ones. These results indicate Ki-67 and CASP3 could prove to be useful biomarker additions to the current breast cancer risk assessment models.

Joseph Carroll
Project advisor: Dr. Lendol Calder, history
Exploring National Identity: Democracy and the History Classroom
SESSION I-E-2: Old Main 132 (10:50-11:10 a.m.)
This presentation will explore the role of national identity in a history classroom within a democratic society.

Kristen O’Malley
Project advisor: Dr. Lendol Calder, history
What Social Studies Pedagogies Best Contribute to Closing the Achievement Gap?
SESSION I-E-3: Old Main 132 (11:10-11:30 a.m.)
My research studies the best types of learning strategies for effective student learning in a Social Studies classroom. This research includes diving into different types of learning strategies and its effect on students in both lower and higher socioeconomic statuses. The purpose of the research is to uncover what social studies’ pedagogies best help student who attend lower socioeconomic schools have competing writing and reading scores as students in high socioeconomic schools. Working towards relative reading and writing scores in the lower socioeconomic status classrooms is important towards closing the widening achievement gap.

Tharakie Pahathkumbura
Project advisor: Dr. Jane Simonsen, history, women’s and gender studies
You Eat What You Are: A Non Cannibalistic Look at What and Why College Students Eat
SESSION IV-E-3: Old Main 132 [2:55-3:15 p.m.]
An investigative documentary that explores how intersections between race, culture, and nationality affect college students’ experiences with food (food choices, preparation methods, food acquisition, community or individual consumption) and how these experiences vary based on gender. The film will be followed by a conversation about the content as well as the production choices.

Colette Salinas
Project advisor: Dr. Lendol Calder, history
Why the Hard Stuff Matters: The Case of the Holocaust
Poster Session [P3] #30: Gävle Room, The Gerber Center
While the Holocaust is a subject that everyone has heard of, it is often overlooked as an important issue in history teaching. My poster seeks to set up a unit of study that critically looks at the implications of the Holocaust through an inquiry model of learning.
TIME AND/OR ROOM CHANGES

Augustana Invitational Robotics Challenge 2017
Dr. Forrest Stonedahl, computer science
Augustana Invitational Robotics Challenge 2017
Tuesday, May 2, 7:30-9:00 p.m. | Hanson 102 (originally listed as starting at 7:00 p.m.)
The 2nd Annual Augustana Invitational Robotics Challenge will involve student teams (possibly from other schools in the region, as well as Augustana) bringing forth the robots that they have designed, built and programmed to compete against one another. This year’s challenge task involves quickly knocking as many ping pong balls out of a walled arena as possible.

Nora Graehling
Project advisor: Dr. Sheila Goins, business administration

Generational Differences in the Workplace
SESSION I-E-1: Old Main 132 (10:30-10:50 a.m.) (originally listed in Poster Session 3 (#P3))
Within the workforce, there are different generations that are expected to interact and communicate ideas effectively. Certain stereotypes have been known to come between different cohorts, causing a lack of communication and productivity. I am curious as to how well known these stereotypes are among each generation and how they affect their workplace.

Camilo Duarte
Project advisor: Dr. Mark Salisbury, institutional research

Heywire: Behind the Scenes
SESSION III-H-1: Bergendoff, Larson Hall [1:00-2:00 p.m.] (originally listed as I-H-4 11:15-11:30)
We will discuss what it takes to run a student organization, and how it all comes together. Everything from training new members to performing and marketing will be discussed; but fret not, as we will make sure to entertain and keep everyone engaged. If you are required to go to a Celebration of Learning session for class, this is a great way to fill that requirement as improvisation applies to all.

Diney Osman
Project advisor: Dr. Lena R. Hann, public health

Approaches To Case File Management at World Relief, a Resettlement Agency for Vulnerable Populations
The purpose of this Senior Inquiry project was to provide a formal recommendation for case file management at World Relief in Moline, Ill. Case file management systems help agencies organize and retrieve their records quickly in order to focus on unique client needs. World Relief works mostly with refugees who have fled their home countries because of fear of persecution. Many of these individuals have experienced trauma and have mental problems as a result. The agency needs to make sure that every client receives the appropriate treatment. This project helped the agency keep client files organized and provided clear procedures for staff to follow. This project examined similar organizations’ methods of filing to inform the new evidence-based system for World Relief. This will help the resettlement agency keep better track of its case files and provide more efficient and impactful service to clients.

Tanner Osing
Project advisor: Dr. Lena R. Hann, public health

Addressing Childhood Lead Poisoning with GIS: A Proactive Approach in Scott County, Iowa
SWLI Poster Session [P2] #5: Gävle Room, The Gerber Center
This poster will also be presented during Poster Session 3, [P3] #29
Many communities are weathering lead’s detrimental health impacts on children, and health departments are looking for new ways to address the problem. Addressing childhood lead poisoning through geographic information systems (GIS) allows health departments to shift from a reactive approach to a proactive approach. While using GIS to analyze lead exposure risk is not new, the scale used in this study, which analyzes risk at the tax parcel level, is less common. The tax parcel level is the most detailed scale that can be examined for residential properties, the place where children are most commonly exposed to lead. Taking place in Scott County, Iowa, where approximately 50 children are diagnosed with lead poisoning every year, this study presents an exposure risk model using four widely recognized risk factors of housing age, median household income, renter occupancy and African-American populations. A GIS spatial analysis was conducted after these risk factors were categorized and weighted against one another to produce a lead exposure risk map. The resulting risk map displays residential properties in four priority levels that can be used by public health officials for targeted prevention programs at areas of greatest impact. Ultimately, this study hopes to reduce the number of lead contaminated residences and in turn, prevent children from being exposed to lead. Since similar risk models have been found generalizable, this model’s applications may stretch beyond Scott County, Iowa.