



## URF Abstract Guidelines and Examples

### What is an abstract?

An abstract is a short summary of the project and should reflect the professional format normally associated with scholarly work in the discipline. It offers a brief synopsis of the purpose and primary ideas of the project. Different disciplines call for slightly different approaches to abstracts. For example, an abstract in the arts may be written as an artist's statement. An abstract of social science or scientific work may contain the background, purpose, results, and contents of the work. In human studies, abstracts typically contain a thesis, background, and conclusion.

The abstract provides a snapshot that captures a reader's attention and--although it can stand alone as a representation of the project--invites readers to learn more by viewing your poster.

### What makes a good abstract?

- It is understandable to a well-read, interdisciplinary audience. It should make sense to someone not familiar with the topic.
- Contains several key features:
  - ▶ General introductory sentence(s) - background, and general information about the topic
  - ▶ Statement of thesis, hypothesis, purpose, or question of study, motivation and significance of the work
  - ▶ General methods/procedures used- goals of the practice being implemented
  - ▶ Results/findings or anticipated results (if the work is still in progress)
  - ▶ Primary conclusion of the work, implications or insights about this work
  - ▶ General statement of the significance of the research, or range of audience who will be interested in the study
- A title that is descriptive and interesting. Keep in mind that the title is your first and best chance to interest and inform your audience about your presentation.



- Your abstract must be *a single paragraph*, approximately 100-250 words in length. It should clearly describe your research or scholarly activity. Citations and a reference list should be avoided, unless the reference is a central part of the work being presented.

### What are the general URF abstract guidelines?

- Abstract deadline date. This is usually very strict. An abstract received after the deadline will not be accepted.
- Word count restriction: Abstracts are typically 100- 250 words. Abstracts that exceed this word count will be cut off at the restricted number when published.
- Format: There is a specific format for the Undergraduate Research Forum abstract.
  - ▶ 1-inch margins.
  - ▶ Times New Roman in 12 pt
  - ▶ Left justify all text.
  - ▶ No tab stops at the beginning of the paragraph.
  - ▶ No literature citations should be included in the abstract.
  - ▶ Do not write text in all capital letter
  - ▶ The presenting author's name is first and is followed by each co-author's name.
  - ▶ Each author should be listed as follows: first name, middle initial (if desired), and last name.
  - ▶ Include your department and school (CLAS, ISE, SOAD, COB, COPS)
  - ▶ Title of your abstract must be in CAPS
  - ▶ Professor's name (class project) or project advisor's name must be included



**EXAMPLE** \*\*This is the format for Alfred University's Undergraduate Research Forum\*\*

**John A. Smith and William J. Brown**  
College of Liberal Arts & Studies  
Biology  
(Dr. Professor Name)

**A VERY IMPORTANT RESEARCH PROJECT**

Author introduces the main subject and purpose of the research/project, indicates why the research/project is important, and places the research/project in a larger topical context (introduction). Author describes what the goal of the current project is (objective). Author describes data sources and methods of data collection and convinces the reader that the methods employed were appropriate to the research/project (methods). Author describes what they learned, providing outcomes for the main results or an explanation for why no results were achieved. Author relates the results to the research/project question (results). Author describes the correlation between the research/project and its results, and the conclusions, anticipated or final, that they draw from the research/project. Author describes how their work will contribute to the field (conclusion).

\*\*If you have not completed your research/scholarly activity at the time of preparing your abstract (a very common situation), you may want to include any preliminary findings in your abstract. Even if your conclusions change as you gather more data and synthesize your results, including preliminary conclusions in your abstract helps the reader understand some of the implications and significance of your research/scholarly activity.



Below you will find examples of abstracts from multiple disciplines.

Scientific

**DEPENDENCE OF ORGANIC MATTER TO LITTER FALL IN STREAMS**

The amount of organic matter in any stream plays a large role in its ecology. Organic matter is a crucial element in the transition of energy in all streams. A major source of organic matter may come from surrounding litter fall. Litter fall is the leaves, woody debris, and seeds that go into a stream from the surrounding vegetation. The goal of this study was to estimate the effect of litter fall on the amount of organic matter in two different streams by testing the dependence of organic matter to litter fall. Litter fall traps were made out of geotextile netting zip tied to rubber tubing and were used to catch litter in 4 different locations at 2 different streams. To collect samples of organic matter, 30x30 cm mesh nets were used systematically by disturbing substrate in the streams for 30 second intervals. Samples were air dried, placed in marked zip-lock bags, and weighed. There was a significant dependence of organic matter to litter fall in two of the eight total sampling sites, but only at locations 50 meters and 100 meters downstream from the litter fall traps.

Scientific

**INFLUENCE OF CATION CHARGE DENSITY, IONIC STRENGTH AND PH ON NOM PARTICLE SIZE DISTRIBUTIONS IN AQUEOUS SOLUTIONS**

This work provides insight into the chemical controls over NOM-NOM (natural organic matter) interactions in solution, which are critical to understanding natural colloids, organic and inorganic pollutant transport in water, and the global carbon cycle. NOM molecules are bioderived species containing phenolic, carboxylic acid and amine groups that can exhibit a pH dependent charge. We attempt to quantify the effects of cation charge density on the hydrodynamic radii and polydispersity of natural organic matter aggregates suspended in water as a function of the key functional group protonation state using dynamic light scattering (DLS) and link these with the morphology of NOM floccs determined via helium ion microscopy (HeIM). Suspended aggregates were prepared by equilibrating suspensions of Cs<sup>+</sup>, K<sup>+</sup>, Na<sup>+</sup>, Ca<sup>2+</sup>, Mg<sup>2+</sup>, and Sr<sup>2+</sup> with NOM at pHs ~12, ~2, and ~6. Trends were observed in the number of unique hydrodynamic radii indicating different competing mechanisms of monovalent and divalent cations. In alkaline earth metal-NOM solutions, the protonation state of NOM seems to be the dominant feature in determining polydispersity, with more deprotonation leading to increasingly monodisperse NOM aggregates. In contrast, cation charge density seems to be the dominant feature controlling polydispersity among the alkali metals.



Engineering

**ELECTROCHEMICALLY ACTIVE NANOTUBES AND NANOSCROLLS**

Three-dimensional oxide nanostructures with high surface area are interesting as potential electrode materials for energy storage devices. Tubular forms such as nanoscrolls and nanotubes promise enhanced electrochemical activity based on their stable geometries with open diffusion channels. MnO<sub>2</sub> nanotubes and niobate nanoscrolls were synthesized using hydrothermal etching and exfoliation processes, respectively. We demonstrate the ability to produce large quantities of uniform nanotubes and nanoscrolls. Preliminary electrochemical testing shows electrochemical redox activity. X-ray diffraction and total scattering are applied to characterize the oxide nanostructures and observe structural evolution during the synthesis processes. These techniques will also be applied to characterize changes induced with electrochemical cycling by interrogating samples after constant-voltage charge and discharge.

Engineering

**SINTERING OF GLASS BONDED SILICON CARBIDE**

Silicon carbide applications fall into two categories: ultra-high temperature applications (requiring solid state sintering and clean grain boundaries), and applications which have less severe requirements. This second case can be satisfied through a liquid phase sintering approach. To demonstrate this idea, clay was used to produce the liquid phase during sintering, resulting in amorphous grain boundaries on cooling. Results indicated that porosity was sensitive to clay concentration and temperature. 12.5% clay (by weight) showed a linear increase in density with temperature at a rate nearly twice that observed with 5% and 20%. Samples containing 20% generated nearly fully dense samples where 5% clay samples generated density levels averaging 58.50% of the theoretical. These results offer the potential to tailor the porosity of sintered silicon carbide for less severe applications.



Social Science

**DIVERTING DELINQUENTS: A STUDY OF YOUTH COURT CASES FROM 2004 TO 2014 IN A RURAL COUNTY**

Youth Court is a restorative justice program that works to reduce future delinquency among youthful offenders by providing an opportunity for them to learn from their mistakes, grow in maturity, and become more involved in the community. Data on 211 offenders, whose cases were heard by the Allegany County Youth Court between 2004 and 2014 were analyzed for this project. Available for analysis is information on age, sex, residence, referral source, offense, recidivism, completion of sanctions, and joining youth court as a member. Offenders, on average, were 14 years old; 68% male, and the majority (25%) live in the largest town in the county. The offenses committed were mostly petit larceny, criminal mischief, and burglary. The younger the offender was when she/he committed the offense, the less likely she/he was to be rearrested. Also found were gender differences by type of offense. Girls were more likely to commit petit larceny than were the boys. Re-arrest happened overall in only about 15% of the cases. All conclusions drawn from this study will be presented along with recommendations for future research.

Social Science

**IS POVERTY STILL FEMINIZED? AN EXAMINATION OF SCHOLARSHIP CITING PEARCE'S "FEMINIZATION OF POVERTY"**

In 1978, Diana Pearce published an article in the *Urban and Social Change Review*, drawing attention to women's ever greater risk of impoverishment in the United States, calling the trend the "feminization of poverty." Since then, Pearce's original article has been cited often and regularly by scholars discussing women's economic status in relation to family, work/career, and the risk of poverty. An examination of the scholarly literature citing Pearce's 1978 article finds that citations of it increase over time with several distinct peaks occurring in 1990, 1998, 2009, and 2014. Does the regularity with which Pearce's work is cited mean that poverty is still "feminized"? For this project, I conducted a content analysis of the titles and abstracts of scholarly journal articles in which Pearce (1978) cited during those four peak years. Titles and abstracts of articles are content analyzed for indications of how "the feminization of poverty" is meant by the author, whether the articles are even about women's poverty, whether concepts such as race, family, education, age, geographic location, religion, and health are included, and if the article is linked to either changes in social welfare policy or to economic conditions that especially disadvantage lower-income women. I hypothesize that interest in the concept by scholars may be motivated by



changes in social welfare policy that impact women's economic well-being or by major economic upheavals that strain families. Preliminary findings will be presented, and conclusions drawn about women's economic status and the "feminization of poverty" today.

Human Studies

**FROM THE DOMESTIC'S DESK**

19th Century American Women were undervalued and often ostracized by society, trapped within the domestic sphere. Even educated, wealthy women were aware of these restrictions and realized that if they pushed the boundaries too much, their opinions and rights could be further persecuted. The works of 19th Century American Women writers used the central traits of their social role to comment on other domestic topics such as slavery, morality, relationships, gender, class structure and justice. Through content analysis, a qualitative study was conducted, examining works by Lydia Maria Child, Harriet Beecher Stowe, Louisa May Alcott, Mary Eleanor Wilkins Freeman and Charlotte Perkins Gilman. The findings from this independent study will be presented.

Human Studies

**ISABEL'S CASTILE AS A MODEL FOR THE REIGN OF ENGLAND'S MARY I**

The theory of a queen regent was different than the reality. Both Isabel I of Castile and Mary I of England faced opposition to the throne as two female regent queens. Isabel I became the example of queenship and not only influenced Spanish history, but English history as well. Her granddaughter, Mary I, was the first female regent in English history. This paper argues that there was no precedent for a queen regent in England. Therefore, in her struggle for the succession to the throne and in her political decision to marry a foreigner, Mary drew upon the example of Isabel.



## **An Artist statement (abstract format for those presenting creative projects)**

An artist statement explains your work- a description of your creative endeavors (and/or process) that provides insight into the project. The statement introduces the reader to your work, so they may get an overall sense of the themes you are exploring, motivation, materials you work with or creative medium to express your creativity and potential influences.

- ▶ Medium, materials, and methods- Describe the medium and materials you use to answer the "how." How do you create your art? What materials do you use (camera, oil paint, charcoal, metal, wood pencil)? For example, are you a digital photographer or prefer film and print in a darkroom?
- ▶ Subject matter- The subject matter might be obvious to you, but not to your audience. However, you may introduce the 'subject' in ways that still allow your audience to form their own interpretations.
- ▶ Relationship between your concept and materials- What are your influences, vision for the work? What is the message that you hope to convey through your creative work?

Art

### **WATER MOVEMENT FLOW**

I have collected Laban Symbols from the book "Sensitive Chaos, the Creation of Flowing Forms in Water and Air" by Theodor Schwenk. As I read about water movement flow dynamics and learn about Laban Movement Analysis through physical observation and sensorimotor experience, I have found a distinct overlap in our physical connection and embodiment of water movement flow dynamics. Pathways of water that form muscle, tissue, and bone can be traced back through these organs. However, the influence of water in the development of the human body can also be seen and expressed externally through our limbs, torso and arms and connect us to environmental behaviors of water. By using the four categories of Laban Movement Analysis (body, effort, shape and space), I can clearly articulate the manifestation of hidden systems of currents through human expression. In my final application project, I am using this information to incorporate movement flow dynamics into my BFA senior thesis show. I will lead two workshops in my Laban class in which we will identify the placement of space, gravity and directional force of contrasting water behaviors through guided exercises. I will





compose a Laban movement motif from the groups choreographic explorations. The motif will be my map to incorporate these symbols into material application, atmosphere and the works gravitational pull to space. Each phrase will be documented with a device that collects heartbeats. This number will be used in one piece to visualize the physical mass of a moment inside the body.

Art

### **GRRRLHOOD AS ART PRACTICE: VISUAL CULTURE OF FEMINIST PUNK**

In the early 1990s, a collective of American women - musicians, artists, and writers - founded Riot Grrrl, an underground feminist movement that was shaped by radical politics and self-expression. Women who were involved in this scene were drawn to the sense of community and shared feminist ideology that was disseminated through zines, self-published books, essays, and visual diaries. Through my own studio practice, personal reflective writings, and visual analysis, I examine how these visual artifacts subvert expectations of womanhood, address experiences of sexism and homophobia, and fostered an aesthetic and political tone that has heavily influenced my own photographic work.

Art

### **Three Piece Composite Form**

I had fallen in love with ceramics after the first time I threw on the potter's wheel. This semester will be my third time in the class, and I have focused on creating larger composite pieces. The piece that you see here is thrown on the wheel in three separate parts and put together later when in the leather-hard stage. Once the piece is together, I pierced the surface with piercing tools and set it out to dry completely to greenware. It is then bisque fired to 1830F, and finally glazed. I sprayed the composite form with two different color glazes, and it is put in the glaze kiln to be fired at 5/6.