Students must submit abstracts of their faculty-mentored research, scholarly, or creative activity with their Presentation & Abstract Submission Form. Presenters will be selected on the basis of the quality of their abstracts. All abstracts must be received by **Monday, October 13, 2003**. Reminder: Please note that in the case of group presentations, only one submission and abstract per project is needed.

Abstracts must include sufficient information for reviewers to judge the nature and significance of the topic, the adequacy of the investigative strategy, the nature of the results, and the conclusions. The abstract should summarize the substantive results of the work and not merely list topics to be discussed. Abstracts will be published in the Conference Program and online.

**ABSTRACT CONTENT**

- An abstract is an outline/brief summary of your paper and your whole project.
- It should have an intro, body and conclusion.
- It highlights major points of the content and answers why this work is important, what was your purpose, how you went about your project, what you learned, and what you concluded.
- It is a well-developed paragraph and should be exact in wording.
- It must be understandable to a wide audience.
- Do not include any charts, tables, figures, or spreadsheets in the abstract body.

**ABSTRACT HEADING LAYOUT**

- Title of paper (if your title includes scientific notation, Greek letters, bold, italics, or other special characters/symbols, make sure they appear correctly here in Microsoft Word)
- First name, middle initial, and last name of author. Please include any additional undergraduate co-authors, whether they are presenting with you or not. Please exclude the name(s) of your faculty mentor(s) since they will be listed separately.
- Name(s) of faculty mentor(s)

**ABSTRACT BODY FORMAT**

Abstracts should follow these guidelines:

- In Microsoft Word format
- In Times New Roman font, size 12
- No more than 250 words in length
- Single-spaced and a single paragraph

**SAMPLE ABSTRACTS**

**Sample of Format:**

Title of Paper*
Joe M. Smith**
Mentor: Mary J. Wilson***

Abstracts must include sufficient information for reviewers to judge the nature and significance of the topic, the adequacy of the investigative strategy, the nature of the results, and the conclusions. The abstract should summarize the substantive results of the work and not merely list topics to be discussed. Abstracts will be published in the Conference Program and online.

* If your title includes scientific notation, Greek letters, bold, italics, or other special characters/symbols, make sure they appear correctly here in Microsoft Word.
** Include additional undergraduate co-authors, whether they are presenting or not presenting, if applicable
*** Include additional faculty mentors, if applicable

**Dance**

Jenny A. DeMuth
Mentor: Dr. Marc Kotz

The definition of syncope is: a brief lapse in conscience caused by a transient cerebral hypoxia (lack of oxygen). Using the theme "brief lapse in consciousness," this piece focuses on the audience’s
perception and the interference in the visual reception. It explores the use of non-traditional light sources to illuminate the body and face. The illumination of the body creates a dramatic contrast of light vs. dark. The darkness becomes just as important as the light in the visual field. Development of this piece involved learning how to control the visual field with movement and having the dancers manipulate the audience's spatial perception. I learned how this process works by rehearsing in a dark studio with flashlights. The flashlights can be used to light the whole body or specific parts of the body. The images of floating body parts create a magically surreal mood. It is sometimes difficult for the audience to perceive what is real and what is an illusion, creating brief lapses with reality or consciousness. The music adds to the overall atmosphere of the piece because of its low and calming effect.

**Humanities**

Cristina Peri Rossi: The Postmodern Transgressions of Parody and Ambiguity
Eduardo Ruiz
Mentor: Dr. Lucia Guerra-Cunningham

Uruguayan writer Cristina Peri Rossi's first book, El libro de mis primos (The Book of My Cousins, 1969), is compared with her later novel, La nave de los locos (The Ship of Fools, 1984), to suggest how an authoritarian society can be criticized through parody and then rebuilt on the foundations of a philosophy of ambiguity, similar to Lyotard's vision of the postmodern. Dissatisfaction with the power structures of tradition and validation of marginality are characteristics of such vision, which inscribe Peri Rossi in the postmodern current of Latin-American literature. The postmodern condition agrees with the major conclusions drawn from both works. First, tradition is viewed as a decadent state of affairs that needs to be brushed aside, for it does not respond to genuine human concerns and, in fact, has frustrated and destroyed them. Parody is the tool used to dispose of tradition. Secondly, there has to be an acceptance of the margins, of the other. This presupposes a tolerant ambiguity of inclusion that is capable of rebuilding instead of destroying, and does so by using the very materials of the other. What El Libro destroys La nave rebuilds. El Libro's mission is to do away with the atrophied waste of patriarchal order, while La nave seeks to fill up the resulting void with one possible solution: the conciliation of opposing forces by a tolerant philosophy of inclusion.

**Science**

Persistent Global Activation of the Aplysia Serotonergic System After Sensitizing Stimuli
Kristine Kolkman
Mentor: Dr. Thomas Carew

The marine mollusk Aplysia responds to noxious stimulation with a stereotyped arousal reaction that includes escape locomotion, increased heart rate and sensitization of defensive reflexes. Although previous studies have shown that serotonin (5-HT) is important for most of these behavioral responses, it is still unclear how the 5-HT system is activated in response to noxious stimuli. To address this question, I used a specific staining of the 5-HT neurons in the living central nervous system (CNS) that allowed me to (1) systematically record their electrical activity following a noxious stimulus, and (2) trace their projections using the neuronal tracer Neurobiotin. I found that in response to tail-nerve shock, a procedure known to mimic a noxious tail stimulus, the vast majority of 5-HT neurons increased their firing rate for several minutes and became more excitable. 5-HT neurons were found to project toward various peripheral targets such as the gill, heart, body wall, tail, siphon, head, and tentacles as well as to other ganglia in the CNS. This study shows that the Aplysia 5-HT system is globally and persistently activated after a noxious stimulus. Such an activation might serve to synchronize the different aspects of the arousal reaction in Aplysia.

**Social Sciences**

Stereotype Threat
Stephanie Domzalski
Mentor: Dr. Geoffrey Iverson

The stereotype threat theory (Steele 1992, 1997) examines the underperformance of women in mathematical domains and minorities in academic domains and attempts to explain these trends as being due to situational anxiety. Research indicates that the performance differential between genders and ethnicities can be best understood in terms of stereotype threat activation rather than biological determinants. The anxiety a stereotyped individual feels when confronted with an academic task is compounded by a societal expectation of failure. However, not much research currently exists on the mediating effects of personal belief in the stereotype. The goal of this study was to examine whether anxiety was correlated with a stronger belief in the stereotype among college-aged participants. Individuals from stigmatized groups demonstrated a significantly greater likelihood to experience higher anxiety levels if they believed the negative stereotype and that higher anxiety level correlated with lower test scores. These results provide general support for Steele's stereotype threat hypothesis.

**Studio Art**

Water Soluble Colorants On Porcelain
Jennifer L. Brant
Mentor: Dr. Charles Olson

In the ceramic work of Scandinavian artist, Arne Ase, water-soluble materials such as titanium sulphate, cobalt chloride, tungsten oxide, molybdenum chloride, and selenium chloride are utilized as decorative elements on his porcelain forms. Such chemicals are not of common use in the ceramic arts because of the expense of the raw materials and the possible hazards of working with these chemicals. However, these colorants can create subtle yet breathtaking effects, including hues of black, blue, yellow, or pink, that blend with the surface of the clay, as if the porcelain vessel were a watercolor painting. It is his research, which I have expanded upon and integrated into my own ceramic work. Additional colorants have been tested, including iron sulphate, cobalt sulphate, and copper sulphate. A different firing atmosphere has been incorporated in the research, as well as two porcelain bodies, to expand the palette of colors that can be obtained. The most successful test results have been applied to my porcelain forms, which include a wide variety of functional objects, in order to contribute to my ongoing exploration of personal expression through the medium of clay.