Incorporating sustainability into Psychology 4420: Cognitive Psychology
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Course

This course in cognitive psychology examines topics such as perception, memory, general knowledge, language, problem solving, and decision making. The course requires a fairly sophisticated background in psychology, and it is one of the advanced undergraduate level courses in our psychology department. Enrollment is capped at 80.

Each student will be able to accomplish the following goals during the course:

1. To appreciate the basic information in cognitive psychology, including both research and theory, acknowledging the complexity of cognitive processes.

2. To understand relevant research-methods issues in cognitive psychology, together with the ability to critically evaluate the research in this area.

3. To know how to conduct cognitive experiments via computer simulations. This will be accomplished by enrollment in the required laboratory for this course. Here, students will improve their ability to understand research in cognitive psychology by engaging in this research first-hand— including the collection, synthesis, and interpretation of data.

4. To develop an understanding of our own cognitive processes, and to improve our cognitive skills even further—for example, when studying for exams and solving problems.

5. To apply the information learned to professional areas such as education, communicative disorders, law, public health, clinical psychology, and social relationships. New this year, we will especially focus on applying knowledge about human cognition to tackle problems related to sustainability.

Instructor

Dr. Kerry Jordan is an Associate Professor of Psychology. She joined USU in 2007. She teaches undergraduate, Master’s, and Doctoral level courses in Cognitive Psychology. Many of her current research collaborations use approaches from cognitive and behavioral psychology to address questions about the environment and sustainability, such as whether certain types of environments increase self-control.

Actions to Implement

- New poster project: Applying knowledge about human cognition to help solve problems related to sustainability
  - Group project
  - Some of the time formerly devoted to lecture will now be used to create a poster presentation of an original research idea applying what students have learned about human cognition to help solve a problem related to sustainability.
  - Groups will pick a specific research question within the general topic of sustainability and then propose a novel experiment to test it.
  - They will design this cognitive experiment, generate specific predictions, and evaluate the implications.
  - First-hand experience with research – although students won’t actually be conducting the research, they will work through every other phase of a real project (e.g., even presenting hypothetical results).
  - To ensure individual accountability, the group project will be evaluated not only at the group level but also at the individual level.
  - Last day of class will now be poster presentations to share student ideas on sustainability.

- New lecture: Cognition applied to real-world problems in Sustainability
  - E.g., what is optimal decision-making, considering problems in sustainability?
  - Utility, logic, framing effects, social impacts

- New lab: Hot topic article on cognition and sustainability
  - Critically examine primary literature

Student Outcomes

Through the added lecture and lab reading, students will gain exposure to both the history of human cognition related to sustainability, and also current methods used to study this link. It is the hope that in the long term, some students may be motivated to carry out the work they propose, whether through cross-disciplinary collaboration in college, graduate school, or career.

Impacts

Implementing a new poster project in this course will spark critical thinking about how best to apply human cognition to solving problems of sustainability. Students will not only now receive the opportunity to work in groups in this lecture course, but this project will also impact their abilities to conduct literature searches, design experiments, form scientific hypotheses, and predict results.