Last Updated: Haddad, Deborah Moore 03/14/2012

General Information

Course Bulletin Listing/Subject Area Psychology

Fiscal Unit/Academic Org Psychology - D0766

 College/Academic Group
 Social And Behavioral Sciences

 Level/Career
 Graduate, Undergraduate

Course Number/Catalog 5700

Course Title Training in Science Education Outreach

Transcript Abbreviation SCI EDU OUTREACH

Course Description

This course will provide hands-on exposure to science education at the Center of Science and Industry

(COSI). Students will learn to explain a specific set of experiments centered on the study of language, and will also receive general training in how to present scientific information to a general audience.

Semester Credit Hours/Units Fixed: 3

Offering Information

Length Of Course 14 Week, 12 Week (May + Summer)

Flexibly Scheduled Course Neve Does any section of this course have a distance No

education component?

Grading Basis

Letter Grade

Repeatable No

Course Components Field Experience, Lecture

Grade Roster Component

Credit Available by Exam

Admission Condition Course

No

Off Campus

Off Campus Sometimes
Campus of Offering Columbus

Prerequisites and Exclusions

Prerequisites/Corequisites Permission of instructor

Exclusions

Cross-Listings

Cross-Listings Linguistics 5700

Subject/CIP Code

Subject/CIP Code 42.0101
Subsidy Level Masters Course

Intended Rank Junior, Senior, Masters, Doctoral

Quarters to Semesters

Quarters to Semesters New course

Give a rationale statement explaining the

purpose of the new course

Provide hands-on training in informal science education. Short term goals are to teach students a set of specific skills which will be put to practical use at COSI; the long term goals are to inspire students to

consider science education as a career

Sought concurrence from the following Fiscal Units or College

03/14/2012

5700 - Status: PENDING

Requirement/Elective Designation

The course is an elective (for this or other units) or is a service course for other units

Course Details

Course goals or learning objectives/outcomes

- To understand the content of specific research studies
- To communicate scientific information to the general public, both adults and children
- To learn about career opportunities in science education

Content Topic List

- Science and methods of 3-6 specific research studies
- How to talk about science to a general audience
- General principles of science education
- education and career prospects in science education

Attachments

• Psych 5700 Syllabus.doc: Course Syllabus

(Syllabus. Owner: Paulsen, Alisa Marie)

Comments

Workflow Information

Status	User(s)	Date/Time	Step
Submitted	Paulsen, Alisa Marie	03/14/2012 12:23 PM	Submitted for Approval
Approved	Nygren, Thomas Eugene	03/14/2012 02:49 PM	Unit Approval
Approved	Haddad, Deborah Moore	03/14/2012 04:34 PM	College Approval
Pending Approval	Nolen,Dawn Jenkins,Mary Ellen Bigler Meyers,Catherine Anne Vankeerbergen,Bernadet te Chantal Hogle,Danielle Nicole Hanlin,Deborah Kay	03/14/2012 04:35 PM	ASCCAO Approval

Psychology 5700 Training in Science Education Outreach Fall Semester 2012

Class # 3 credit hours MWF in the 3ish range

Instructor Info: Laura Wagner

Office: 241 Psychology

Phone: 688-3260

Office hours: By appointment Email: wagner.602@osu.edu

Course Objectives:

The purpose of this course is to provide hands-on exposure to science education. Students will learn to explain a specific set of experiments centered on the study of LANGUAGE, and will also receive general training in how to present scientific information to a general audience. Much of the class will be conducted at the Center of Science and Industry (COSI) museum and students will spend significant amounts of time acting as informal science educators with visitors to the museum.

Pre-Requisites:

All students must have permission of the instructor to enroll.

Course Materials:

REOUIRED:

- Pinker, S. (1994) *The Language Instinct*. NY: Harper Collins. (You are welcome to read ANY edition available of this book)
 - Assorted articles (available on the Carmen site)

OPTIONAL:

- Linguistics Department (2011) *The Language Files*. Columbus, OH: Ohio State University Press. (This is the 11th edition, but you may find older editions to be reasonably helpful.)
- Fleming, C. (2010) *It's the Way You Say It: Becoming Articulate, Well-Spoken, and Clear.* Bloomington, IN: iUniverse.

Course Assignments:

Students will be graded on three components of work:

• Written Component (20%)

<u>Undergraduate students</u> will keep a journal of their experiences during the course and will periodically be asked to turn in portions of that journal.

<u>Graduate students</u> will write a proposal for an educational demonstration to be conducted at COSI.

- Oral Presentations (40%) Half of this component will consist of two oral presentations in front of class members prior to working in the museum. The remaining half will consist of an observation of a student's presentation to visitors in the museum.
- Attendance (40%) A critical component of this course is the hands-on time at the COSI museum. Several formal class sessions will be cancelled to accommodate some of the hands-on time.

Students are expected to spend a minimum of 2 hours at COSI for each cancelled class session. These hours will be scheduled and tracked, and some of them will happen during weekend and evening times. Note that in addition, some regular course sessions will be held at the COSI museum.

Grading:

The following grade pattern will be used:

Disability Services: Students with disabilities that have been certified by the Office for Disability Services will be appropriately accommodated, and should inform the instructor as soon as possible of their needs. The Office for Disability Services is located in 150 Pomerene Hall, 1760 Neil Avenue; telephone 292-3307, TDD 292-0901; http://www.ods.ohiostate.edu/.

Academic Misconduct: It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term "academic misconduct" includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Instructors shall report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5-487). For additional information, see the Code of Student Conduct (http://studentaffairs.osu.edu/info_for_students/csc.asp).

Schedule

Week #	Focus Area	Assignments
1	• Meet as a class (3 sessions)	Background on science education Learn about language experiments
2	Meet as a class (2 sessions)Begin hands-on COSI hours	Learn about COSI Tips for presenting
3	Meet as a class (1 session)Hands-on COSI hours	Oral presentations (in class practice)
4	Meet as a class (1 session)Hands-on COSI hours	Oral presentations (in class practice)Turn in portion of journal
5	Meet as a class (1 session)Hands-on COSI hours	Oral presentations (in class practice)
6	Hands-on COSI hours	
7	• Meet as a class (1 session)	Perspectives on Scientific Inquiry

	Hands-on COSI hours	• Turn in portion of journal
8	Hands-on COSI hours	
9	• Meet as a class (1 session) • Hands-on COSI hours	• COSI University session in class • Oral presentations (observations)
10	Hands-on COSI hours	Oral presentations (observations) Turn in portion of journal
11	Meet as a class (1 session) Hands-on COSI hours	 Examples of Informal Science Education Oral presentations (observations)
12	Hands-on COSI hours	Oral presentations (observations)
13	Hands-on COSI hours	Oral presentations (observations)
14	Meet as a class (1 session)Finish hands-on COSI hours	In-class discussion of the courseTurn in portion of journal

Article Readings

- GENERAL READINGS (To be used in all classes)
- Dierking, L., D., Falk, J. H., Rennie, L., Anderson, D. & Ellenbogen, K. (2003). Policy Statement of the "Informal Science Education" Ad Hoc Committee. *Journal of Research in Science Teaching* 40 (2), 108 111.
- Falk, J. H. & Needham, M. D. (2011). Measuring the Impact of a Science Center on Its Community. *Journal of Research in Science Teaching 48 (1)*, 1 – 12.
- Falk, H. H. & Storksdieck, M. (2010) Science Learning in a Leisure Setting. *Journal of Research in Science Teaching* 47 (2), 194 212.
- Popper, K. R (1963) "Science as Falsification." Selection from *Conjectures and Refutations*. NY: Routledge.
- Harmon, J. E. & Gross, A. G. (2010) *The Craft of Scientific Communication*. Chicago: University of Chicago Press. (Selected sections posted).
- EXPERIMENT SPECIFIC READINGS (different each time the class is taught)

You are responsible for being able to explain the experimental research going on at COSI. There will be in-class presentations about those studies, and in addition, you are expected to read a study-specific paper.

Some sample papers are these:

- Campbell-Kibler, K. (in press) Contestation and Enregisterment in Ohio's Imagined Dialects. *Journal of English Linguistics.*
- Clopper, C. G., & Bradlow, A. R. (2009). Free classification of American English dialects by native and non-native listeners. *Journal of Phonetics*, *37*, 436-451.
- Wagner, L., Greene-Havas, M. & Gillespie, R. (2010) Development in Children's Comprehension of Linguistic Register. *Child Development 81 (6)*, 1678 1685.