

## Term Information

Effective Term Autumn 2013  
*Previous Value* Spring 2013

## Course Change Information

### What change is being proposed? (If more than one, what changes are being proposed?)

Course title, description, repeatability, learning objectives, and content topic list.

### What is the rationale for the proposed change(s)?

The instructor has adjusted the course to accommodate students who would like to repeat it for an advanced experience. The description, learning objectives, and content topic list have been adjusted accordingly. Edu T & L has requested the title change.

### What are the programmatic implications of the proposed change(s)?

(e.g. program requirements to be added or removed, changes to be made in available resources, effect on other programs that use the course)?

None

Is approval of the request contingent upon the approval of other course or curricular program request? No

Is this a request to withdraw the course? No

## General Information

Course Bulletin Listing/Subject Area Linguistics  
Fiscal Unit/Academic Org Linguistics - D0566  
College/Academic Group Arts and Sciences  
Level/Career Graduate, Undergraduate  
Course Number/Catalog 5700  
Course Title Training in Informal Science Outreach  
*Previous Value* Training in Science Education Outreach  
Transcript Abbreviation Science Outreach  
*Previous Value* Sci Edu Outreach  
Course Description The purpose of this course is to provide students with hands-on training in informal science education at the COSI museum. All students will learn to provide outreach education at the museum; advanced students will develop outreach materials, assist in the visible research operations, and mentor other students.  
*Previous Value* 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 Never  
Does any section of this course have a distance education component? No  
Grading Basis Letter Grade  
Repeatable Yes  
*Previous Value* No  
Allow Multiple Enrollments in Term No  
Max Credit Hours/Units Allowed 12

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Max Completions Allowed	4
Course Components	Field Experience, Lecture
Grade Roster Component	Lecture
Credit Available by Exam	No
Admission Condition Course	No
Off Campus	Sometimes
Campus of Offering	Columbus

## Prerequisites and Exclusions

Prerequisites/Corequisites	Prereq: Permission of instructor.
Exclusions	Not open to students with credit for Psych 5700.

## Cross-Listings

Cross-Listings	Cross-listed in Psych.
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## Subject/CIP Code

Subject/CIP Code	16.0102
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. Long term goals are to inspire students to consider science education as a career.
Sought concurrence from the following Fiscal Units or College	

## 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	<ul style="list-style-type: none"><li>• To understand the content of specific research studies and how to communicate scientific information to the general public, both adults and children</li><li>• To develop outreach education materials and mentor less advanced students in the outreach process</li><li>• To learn how to engage the general public in research studies, including how to conduct an experiment ethically, collect data, and adequately debrief participants about the purpose of the study</li></ul>
<a href="#">Previous Value</a>	<ul style="list-style-type: none"><li>• <a href="#">Understand the content of specific research studies</a></li><li>• <a href="#">Communicate scientific information to the general public, both adults and children</a></li><li>• <a href="#">Learn about career opportunities in science education</a></li></ul>

**COURSE CHANGE REQUEST**  
5700 - Status: PENDING

Last Updated: Vankeerbergen, Bernadette  
Chantal  
11/28/2012

**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
- (Advanced students) Principles for creating outreach demonstrations
- (Advanced students) Guidelines for mentoring
- (Advanced students) Procedures for conducting specific study

**Previous Value**

- *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**

- 5700 Syllabus-Revised-For Repeating.pdf: pdf-revised syllabus  
*(Syllabus. Owner: McGory, Julia Tevis)*

**Comments**

- Content underlined and in green has been added to the syllabus to accommodate students repeating the course. *(by McGory, Julia Tevis on 11/26/2012 10:01 AM)*

**Workflow Information**

Status	User(s)	Date/Time	Step
Submitted	McGory, Julia Tevis	11/26/2012 10:07 AM	Submitted for Approval
Approved	McGory, Julia Tevis	11/26/2012 10:08 AM	Unit Approval
Approved	Heysel, Garrett Robert	11/27/2012 09:47 PM	College Approval
Pending Approval	Nolen, Dawn Jenkins, Mary Ellen Bigler Vankeerbergen, Bernadette Chantal Hogle, Danielle Nicole Hanlin, Deborah Kay	11/27/2012 09:47 PM	ASCCAO Approval

**Linguistics 5700**  
**Training in Science Education Outreach**  
**Fall Semester 2013**

**Class #**                      **3 credit hours**                      **MWF**

**Instructor Info:**                      Laura Wagner  
Office: 241 Psychology  
Phone: 688-3260  
Office hours: By appointment  
Email: [wagner.602@osu.edu](mailto: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.

Students who are repeating the course will assist in developing educational outreach materials for the public, mentor less advanced students in their outreach efforts, and/or learn how to actually conduct a study with museum visitors.

**Pre-Requisites:**

All students must have permission of the instructor to enroll.

**Course Materials:**

REQUIRED:

- 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 11<sup>th</sup> 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%)

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

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

Advanced students (those repeating the course) will negotiated a specific writing assignment with the instructor. The assignment will reflect the specific additional material the student is covering (outreach or research or mentoring) in the repeated version.

- 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:

	A	93 – 100	A-	90 - 92
B+	B	83 – 86	B-	80 – 82
C+	C	73 – 76	C-	70 – 72
	D	60 - 69		
	E	below 60		

**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.ohio-state.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](http://studentaffairs.osu.edu/info_for_students/csc.asp)).

**Schedule**

The schedule below reflects what students going through the course for the first time will do. Students who are repeating the course will negotiate with the instructor what their specific commitments will be. The topics marked with an \*\* reflect class sessions that these advanced students will re-schedule for one-on-one or small group time with the instructor to get the specific additional training they will need for their advanced work.

Week	Meetings	Assignments	Topics
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1	<ul style="list-style-type: none"> <li>• Meet as a class (3 sessions)</li> </ul>		<ul style="list-style-type: none"> <li>• Science Education: what it is and why you should want to do it</li> <li>• Learn about specific language experiments</li> </ul>
2	<ul style="list-style-type: none"> <li>• Meet as a class (2 sessions)</li> <li>• Begin hands-on COSI hours</li> </ul>		<ul style="list-style-type: none"> <li>• COSI: Orientation to the museum**</li> <li>• Science Education: how to talk** about science to regular people</li> </ul>
3	<ul style="list-style-type: none"> <li>• Meet as a class (1 session)</li> <li>• Hands-on COSI hours</li> </ul>	<ul style="list-style-type: none"> <li>• Oral presentations (in class)</li> </ul>	<ul style="list-style-type: none"> <li>• Further learning about specific language experiments</li> </ul>
4	<ul style="list-style-type: none"> <li>• Meet as a class (1 session)</li> <li>• Hands-on COSI hours</li> </ul>	<ul style="list-style-type: none"> <li>• Oral presentations (in class)</li> <li>• Turn in portion of journal</li> </ul>	<ul style="list-style-type: none"> <li>• Class discussion: questions and issues related to language sciences**</li> </ul>
5	<ul style="list-style-type: none"> <li>• Meet as a class (1 session)</li> <li>• Hands-on COSI hours</li> </ul>	<ul style="list-style-type: none"> <li>• Oral presentations (in class)</li> </ul>	<ul style="list-style-type: none"> <li>• Class discussion: questions and issues related to language sciences**</li> </ul>
6	<ul style="list-style-type: none"> <li>• Hands-on COSI hours</li> </ul>		
7	<ul style="list-style-type: none"> <li>• Meet as a class (1 session)</li> <li>• Hands-on COSI hours</li> </ul>	<ul style="list-style-type: none"> <li>• Turn in portion of journal</li> </ul>	<ul style="list-style-type: none"> <li>• Science education: Perspectives on Scientific Inquiry**</li> </ul>
8	<ul style="list-style-type: none"> <li>• Hands-on COSI hours</li> </ul>		
9	<ul style="list-style-type: none"> <li>• Meet as a class (1 session)</li> <li>• Hands-on COSI hours</li> </ul>	<ul style="list-style-type: none"> <li>• Oral presentations (observations)</li> </ul>	<ul style="list-style-type: none"> <li>• COSI: COSI University training for working with museum visitors</li> </ul>
10	<ul style="list-style-type: none"> <li>• Hands-on COSI hours</li> </ul>	<ul style="list-style-type: none"> <li>• Oral presentations (observations)</li> <li>• Turn in portion of journal</li> </ul>	
11	<ul style="list-style-type: none"> <li>• Meet as a class (1 session)</li> <li>• Hands-on COSI hours</li> </ul>	<ul style="list-style-type: none"> <li>• Oral presentations (observations)</li> </ul>	<ul style="list-style-type: none"> <li>• Science education: review of best practices in the field**</li> </ul>
12	<ul style="list-style-type: none"> <li>• Hands-on COSI hours</li> </ul>	<ul style="list-style-type: none"> <li>• Oral presentations (observations)</li> </ul>	
13	<ul style="list-style-type: none"> <li>• Hands-on COSI hours</li> </ul>	<ul style="list-style-type: none"> <li>• Oral presentations (observations)</li> </ul>	
14	<ul style="list-style-type: none"> <li>• Meet as a class (1 session)</li> <li>• Finish hands-on</li> </ul>	<ul style="list-style-type: none"> <li>• Turn in portion of journal</li> </ul>	<ul style="list-style-type: none"> <li>• Class discussion: Perspectives on science education in a museum setting</li> </ul>

	COSI hours		
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## 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.