Term Information

Effective Term	Autumn 2012

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	5703
Course Title	Eye tracking methods for psycholinguistics
Transcript Abbreviation	Eye Tracking
Course Description	This is a hands-on laboratory course focusing on current techniques for monitoring eye movements as a measure of language processing. We will discuss preparation of auditory and screen-based/real world visual stimuli, and methods for aggregating and analyzing eye movement data. Students will have access to Tobii and ASL Mobile eye trackers.
Semester Credit Hours/Units	Fixed: 3

Offering Information

Length Of Course	14 Week, 7 Week, 4 Week (May Session), 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	No
Course Components	Laboratory, Lecture
Grade Roster Component	Lecture
Credit Available by Exam	No
Admission Condition Course	No
Off Campus	Never
Campus of Offering	Columbus

Prerequisites and Exclusions

Prerequisites/Corequisites	Ling H371 or Ling 615 or Ling H3701 or Ling 5701
Exclusions	

Cross-Listings

Cross-Listings

Subject/CIP Code

Subject/CIP Code	16.0102
Subsidy Level	Doctoral 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	To provide students with practical and theoretical knowledge of eye movement monitoring methods, hands-on practice with relevant equipment and basic understanding of relevant software for experimentation and manipulation of resulting data.
Sought concurrence from the following Fiscal Units or College	NA

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

Content Topic List

- Current techniques and apparatus for monitoring eye movements as a measure of language comprehension and production
- Hands-on research with eye tracking models currently in use in OSU laboratories
- Preparation of auditory language materials and visual stimuli appropriate for eye movement monitoring studies
- Methods for aggregating and analyzing eye movement data.

Attachments

- EyeTrackingSyllabusSemester.pdf: Linguist 5703 Syllabus

(Syllabus. Owner: McGory,Julia Tevis)

Comments

Workflow Information

Status	User(s)	Date/Time	Step
Submitted	McGory,Julia Tevis	04/24/2012 03:29 PM	Submitted for Approval
Approved	McGory,Julia Tevis	04/24/2012 03:30 PM	Unit Approval
Approved	Heysel,Garett Robert	04/24/2012 07:34 PM	College Approval
Pending Approval	Nolen,Dawn Jenkins,Mary Ellen Bigler Meyers,Catherine Anne Vankeerbergen,Bernadette Chantal Hogle,Danielle Nicole Hanlin,Deborah Kay	04/24/2012 07:34 PM	ASCCAO Approval

Eye-tracking technique for investigating human speech processing
Ling XXXXX, Autumn 2012

Instructor: Kiwako Ito, Ph.D.
212 Pomerene Hall Phone: 292-1841
Office Hours: by appointment
Email: ito@ling.ohio-state.edu

Reading materials will be available through **Carmen**

COURSE REQUIREMENTS/ GRADES:

Mondays: Article discussion
Each registered graduate student will be asked to lead a discussion on one of the selected articles (distributed through Carmen). Undergraduate students may be asked to co-present articles. Each student will be also asked to upload one question (to Carmen) about the content of the assigned article before each discussion (and this serves as the record of discussion preparation).
The preparations (i.e., questions) for discussions, attendance and performance at the discussions together count for 30% of the grade.

Wednesdays: COSI workshops
Each registered student will be asked to design materials for some eye-tracking experiment. According to the status of each project, each student will be asked to set a goal for the quarter. At each meeting, each student will make a progress report (and this serves as the record of attendance). We will also collect some pilot data with an ASL MobileEye XG tracker at the COSI lab and explore data analyses.
The attendance and performance at the workshops count for 30% of the grade.

In the final exam week, every registered student will be asked to submit the project summary that describes:

1. Research question (with a brief literature review)
2. Task
3. Materials
4. Predictions (with a specification of dependent/independent variables)

The final project summary counts for 40% of the grade.

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

COURSE SCHEDULE

DATE	TOPIC	READING	ASSIGNMENT Presenter (TBA)
Week1			
	Introduction to eye tracking Scheduling presentations	Henderson& Ferreira Tanenhaus & Trueswell	
	Tasks & independent/dependent variables in eye-tracking experiments		Research Q H&F, T&T
Week2			
	Sub-phonemic variation and Lexical Access	McMurray et al. 02, 08	TBA
	ASL tutorial How to calibrate the eyes		Calibration Practice
Week3			
	Lexical Access Models	Magnuson et al. Creel et al. 03	TBA
	ASL tutorial How to calibrate the scene		Calibration Practice
Week4			
	Lexical Access & Effect of Lexical Prosody	Creel et al. 06	TBA
	Speech Materials Using Praat to analyze speech materials		Example speech materials

Week5			
	Incremental Sentence Processing	Altmann & Kamide	TBA
	Controlling visual salience Example visual stimuli		Calibration with example slides
Week6			
	Dialectal Adaptation	Trude & Brown-Schmidt 11 Dahan et al.	TBA
	Using Photoshop to edit visual objects Practicing scene calibration		Discussion on visual stimuli
Week7			
	Speaker's Privilege and Listener's Perspective	Brown-Schmidt 09	TBA
	Defining Areas of Interest		Preparing Visual stimuli
Week8			
	Prosody and Sentence Processing	Snedeker &Yuan, 08 Zhou et al. 11	TBA
	Using Matlab to edit visual objects 1		Defining AOIs w/ MobileEye
Week09			
	Referential Resolution in Children	Borovsky et al. Ito et al. 12	TBA
Week10			
	Gesture and Metaphor	Thomas & Lleras Grant & Spivey	TBA
	Using Matlab to edit visual objects 2 Making experimental slides		Counterbalancing across AOIs

Week11			
	Perceptual effort and pupillometry	Zekveld 2011	TBA
	Using EPrime for presenting stimuli		EPrime lists
Week12			
	ANOVA vs. Mixed Effects Models	Barr, 08 Jaeger, 08	TBA
	Using EPrime for presenting stimuli User-specific scripting		EPrime codes
Week13			
	What to include in the models?	Barr et al. Baayen, 08	TBA
	Editing raw data Data reduction strategy		Data reduction R codes
Week14			
	Growth Curve Analysis	Mirman	TBA
	Dependent measure and graphing		Example R codes for Graphing
Week15			
	Effect of Task Adaptation and Changes in Responses	Jaeger	TBA
	Mixed Effects Models and lmer in R		Example lmer codes
Week 16			
	Project presentations		project summary
	FINAL REPORT DUE		