



**Department of Linguistics**  
**Linguistics 439 - Psycholinguistics**  
**Winter 2011 – Course Outline**

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<b>Instructor:</b>	Suzanne Curtin	<b>Lecture Location:</b>	SB 105
<b>Phone:</b>	403-220-7670	<b>Lecture Days/Time:</b>	MWF 10:00-10:50
<b>Email:</b>	scurtin@ucalgary.ca	<b>TA</b>	Stephanie Archer
<b>Office:</b>	ADM 260	<b>TA email</b>	slarcher@ucalgary.ca
<b>Office Hours:</b>	by appt.	<b>LAB Location</b>	SS 018
		<b>Lab Day/Time</b>	M 12:00-12:50

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### **Course Description**

Psycholinguistics is a broad field of research spanning from speech perception to sentence processing to language development to computer modeling. Throughout the course we will consider the relationship between theoretical linguistic concepts and constructs and psycholinguistic data. We will begin by discussing what language is, how it is organized, represented, and acquired, where it comes from, and what cognitive factors influence it. We will then investigate current and ongoing issues in psycholinguistics while examining the basic processes underlying the acquisition, production, and comprehension of spoken and written language. The lab component provides experience with experimental techniques used to study language behaviour.

### **Course Goals / Learning Objectives**

- A primary goal is intellectual synthesis. Strive to organize disparate facts into coherent wholes.
- Learn foundations of psycholinguistic research
- The course is reading-intensive. You will learn to think critically about research and to summarize research orally and in writing.
- Think about the broad theoretical questions and about research methods available to address these questions.
- Learn to conduct a literature review.
- Review the literature, read articles and synthesize the material, thinking critically about scientific information.
- Develop your scientific writing skills.
- Prepare a coherent thesis and argue for it with citations from the scientific literature.

### **Prerequisites**

Ling 203: Introduction to Linguistics II

### **Required Text**

Fernández, E.M., & Cairns, H.S. (2010). *Fundamentals of Psycholinguistics*. Wiley-Blackwell: West Sussex, UK.

This course is reading intensive. Be prepared to read a number of primary source articles and chapters and to turn in summaries for some of them (see class schedule).

## Course Requirements

### Written Summaries (as noted in schedule, 9% total)

As noted on the Class Schedule, you are expected to write a critical summary (approx. one page) of assigned papers (total of 3 worth 3% each). Each summary should be titled with the full reference of the paper reviewed. A "critical summary" entails three parts: first, a synopsis of the article which should illustrate both your understanding of the text's salient arguments as well as your ability to summarize these points succinctly and clearly. In general, this should be accomplished in about 1 paragraph. The second part should contain your assessment of the article's weaknesses and strengths and/or its relationship to other articles for the week. Strive to synthesize the "big picture" theoretical questions and relate them to themes in the course. Finally, suggest several questions for discussion. Bullet points are fine for this section; this need not be a thesis, but it should illustrate your understanding of the material. You should keep a "notebook" of these summaries; if you do them well, they will be very helpful in preparing for the exams. (More detailed info below)

### Discussion Leader (when assigned, 6%)

For each discussion topic, there will be assigned discussion leaders. The discussion leaders will take responsibility for leading discussion, ensuring that the class engages the relevant issues of the week and highlighting major points. You may be creative with this role – brief presentations, demonstrations, examples, and even props are welcome.

All students are expected to participate in all discussions.

### Exam 1 & Exam 2 (20%, each 10%)

Exams will test your knowledge with short answer and multiple choice style questions.

### Final Review Project (25%)

At the end of the semester, you will submit a paper reviewing a research topic relevant to the course goals. You may use this as an opportunity to investigate a topic in psycholinguistics that we have not discussed in class or to investigate more deeply one of the topics of the course; you should follow your own interests.

### Laboratory (40%)

Once a week you will attend the lab section of the course. There you will get hands-on experience with psycholinguistic phenomena. The lab will consist of mini-projects, in-class assignments and homeworks. See the lab outline for details of how each component of the lab section will be assessed.

### Evaluation Summary

- Class Discussion, **6%**
- Written Summaries, **9%** (3% each)
- Exam #1, **10%** (02/14)
- Exam #2, **10%** (03/21)
- Final Paper, **25%** (due: **04/22/11 AT 10:00**, drop-off in Linguistics Main Office).
- LABORATORY (see lab outline for individual assignments), **40%** of overall grade.

**Exams** will be short answer and multiple-choice style. Material from lectures, discussions, labs, and readings will be covered. No study aids will be permitted during exams.

## Grading Scale

A+	96-100%	B+	80-84%	C+	67-71%	D+	54-58%
A	90-95%	B	76-79%	C	63-66%	D	50-53%
A-	85-89%	B-	72-75%	C-	59-62%	F	0-49%

As stated in the University Calendar, it is at the instructor's discretion to round off either upward or downward to determine a final grade when the average of term work and final examinations is between two letter grades.

In this course there will be no rounding up of final grades, especially in light of the opportunities students have to increase their final grade via research participation.

## Tentative Class Schedule

NOTE: topics and dates are subject to change.

Week	Date	Topic	Assigned Reading	Other Assignments	Lab* Topics
1	01/10	Course Introduction & Overview			<b><i>NO LAB THIS WEEK!</i></b>
	01/12 01/14	Beginning Concepts	Fernández, & Cairns (2010) Chapter 1		
2	01/17 01/19 01/21	Nature of Linguistic Competence	Fernández, & Cairns (2010) Chapter 2	<i>01/21: Last day to drop a course with no W grade and tuition refund.</i>	<i>How to run a basic experiment.</i>
3	01/24 01/26	Biological Basis of Language	Fernández, & Cairns (2010) Chapter 3	Download the <u><a href="#">Brain Topography Coloring Book and familiarize yourself with the anatomical terms.</a></u>  <i>01/24: Last day for registration/change of registration.</i>	<i>Animal Communication</i>
	01/28	Discussion: Evolution, Gesture, Brains	Christiansen & Kirby (2003) Willems & Hagoort (2007) Schlaug et al. (2008) Marcus et al. (2003)	<i>Come to class <u>ready to discuss</u> assigned reading (see below for advice on how to prepare)</i>	
4	01/31 02/02	Producing Speech	Fernández, & Cairns (2010) Chapter 5		<i>Speech Errors</i>
	02/04	Discussion: Slips	Burke & Schafto (2004) Moller et al. (2007) Erard (2007) Oppenheim & Dell (2007)	<i>Come to class <u>ready to discuss</u> assigned reading (see below for advice on how to prepare)</i>	
5	02/07 02/09	Perceiving Speech	Fernández, & Cairns (2010) Chapter 6 pg 170-186		<i>Acoustics/ Categorical Perception</i>
	02/11	<u>Discussion:</u>	Holt & Lotto (2008)	<u><i>Prepare Written</i></u>	

		<b><u>Perception and Cognition</u></b>	Lotto et al (2009) Scott & Johnsrude (2003) <b>Stevens &amp; Holt (2003)</b>	<i>Summary for Stevens and Holt (2003) (see below for instructions) and turn in during class.</i>  <i>Come to class <u>ready to discuss</u> assigned reading (see below for advice on how to prepare)</i>	
6	02/14	<b>In-Class Exam #1</b>			<b>NO LAB THIS WEEK!</b>
	02/16 02/18	<b><u>Recognizing Speech 1</u></b>	Fernández, & Cairns (2010) Chapter 6 pg 187-197		
<b>Reading Week</b>					
7	02/28	<b><u>No Lecture</u></b>			<i>Working Memory</i>
	03/02 03/04	<b><u>Visual Word Recognition Reading</u></b>	Fernández, & Cairns (2010) Chapter 6 pg 187-197		
8	03/07	<b><u>Discussion: Developmental Dyslexia</u></b>	Gabrieli (2009) Sperling et al. (2005) Ziegler et al. (2010) Galaburda (2006)	<i>Come to class <u>ready to discuss</u> assigned reading (see below for advice on how to prepare)</i>	<i>Stroop</i>
	03/09 03/11	<b><u>Structural Processing</u></b>	Fernández, & Cairns (2010) Chapter 7		
9	03/14	<b><u>Discussion: Processing Sentences</u></b>	<b>Amato &amp; MacDonald (2010)</b> Farmer et al. (2006) Tannenhaus & Hare (2007) Trueswell & Kim (1998)	<i>Prepare Written Summary for Amato &amp; MacDonald (2010) (see below for instructions) and turn in during class.</i>  <i>Come to class <u>ready to discuss</u> assigned reading (see below for advice on how to prepare)</i>	<i>Sentence Processing</i>
	03/16 03/18	<b><u>Language Acquisition: Infancy</u></b>	Fernández, & Cairns (2010) Chapter 5		
10	03/21 03/23	<b><u>Language Acquisition: Words and Sentences</u></b>	Fernández, & Cairns (2010) Chapter 5		<i>Language Acquisition</i>
	03/25	<b><u>Discussion: Statistical Learning</u></b>	Saffran et al (1996) Maye et al (2002) Gomez & Gerken (2000) Hauser et al. (2001)	<i>Come to class <u>ready to discuss</u> assigned reading (see below for advice on how to prepare)</i>	
11	03/28	<b>In-Class Exam #2</b>			
	03/30	<b><u>Factors influencing Language Acquisition</u></b>	<b>No Reading</b>		
	04/01	<b><u>No Class</u></b>			
12	04/04 04/06	<b><u>Atypical Language Development</u></b>	<b>No Reading</b>		<i>Gesture 1</i>
	04/08	<b><u>Discussion:</u></b>	Karmiloff-Smith (2007)	<i>Prepare Written</i>	

		<u>Williams Syndrome, Autism</u>	Reilly et al. (2004) Rice et al. (2005) Meyer-Lindenberg et al (2006)	<i>Summary for Reilly et al. (2004) (see below for instructions) and turn in during class.</i>  <i>Come to class <u>ready to discuss</u> assigned reading (see below for advice on how to prepare)</i>	
13	04/11 04/13	<u>Gesture as a Window to Cognition</u>	No Reading		Gesture 2
	04/15	<u>Wrap-up</u>		<i>04/15: Lecture ends. Last day to withdraw.</i>	

**FINAL PROJECT DUE: FRIDAY 04/22/11 AT 10:00!**

**\*See Lab Outline for details of assignments and topics.**

### Written Summaries

Strive to describe the answers to these questions in very general terms that someone outside the field could understand. Imagine you are writing a *New York Times* science article, for example. Here are some questions to help motivate your discussion:

- What is the paper about? Why is it of interest in understanding human cognition?
- What justifies or motivates the present research?
- What is surprising about the results?
- What is the primary hypothesis tested in the experiment(s)? Was it confirmed or disconfirmed?
- How was the hypothesis tested? Using what experimental design? What kind of data was collected? How was it analyzed?
- Which figure provides the strongest evidence for the hypothesis? Be prepared to describe this figure and why it provides support for the authors' claims.
- Are there any serious design flaws or confounds with this study? If you were reviewing this article, would you have any criticisms?
- Does this paper provide us with novel information?
- If the paper is a review paper or a position paper, what stance does the author take? What alternatives might you imagine? Do you think the author supports his/her position well? Why or why not?
- Suggest a way in which this paper relates to other work we have discussed in class or to other research you have read. Are the results consistent with other studies? Do they provide evidence for the primary hypothesis?
- Motivate a hypothesis for a follow-up study based on these results.
- What can this work tell us about auditory cognitive processing more generally? What does it tell us generally about human behavior?

These summaries should be about 1 page, typewritten and printed as a hard copy. Bring them with you to class. Please be sure your name is on the document.

## Final Project

You will write a paper on a topic of your own choosing related to the course themes.

- Strive to make this a creative synthesis of some topic of research related to psycholinguistics.
- 12-15 double-spaced pages including references
- Fully referenced with >10 sources
- Structure your paper in the style of a review article (see *Nature Neuroscience Reviews*, *Trends in Cognitive Sciences*, etc)
- Highlight the major points of debate surrounding the issue
- Note the open questions for future research
- Indicate the ways in which questions are being addressed

## Hints on Reading Primary-Source Literature

This course is reading-intensive. Nearly all of this reading will draw from primary sources; that is, they will be journal articles that are “first reports” of significant findings. Other readings are chapters and reviews of primary literature. For some of you, this sort of literature will be quite unfamiliar. It can be a bit difficult to make the transition from reading textbooks to reading primary sources. Here are a few tips:

1. Most importantly, read with a notebook handy. Jot down thoughts and questions and bring them to class. We will spend part of each class clearing up questions. Use these to formulate your Written Summaries.
2. Don't worry if you don't understand some of the terminology. Every field has its own vocabulary. By the end of the semester, you will be a pro. As you read, look up terms on the internet to get a deeper understanding.
3. Journal articles are written with the intention that the methods described can be replicated. As you read, stop occasionally and be sure that you really understand what the authors are doing in each experiment. Why did they do X and not Y? Why were certain choices made?
4. Be a critical reader. Don't just passively absorb what the author is arguing. Are the authors' conclusions merited? Do the data really suggest what they claim? What are the broader issues that these experiments attempt to address? Do they do so? If you were going to follow up on this work, what might the next experiment be?

## Tips on Leading a Good Discussion

1. When there is more than one discussant for a class period, each of the discussants should take the lead for about half (or, for three discussants, 1/3) of the time.
2. Come prepared with 3 or 4 key topics or issues or conclusions raised in the paper and comments to be raised about each of them. Focus on inferences that we as readers can make, or conclusions that can be drawn, relations to other papers/topics that can be made, etc. Draw on the content of the article to make the point and then relate to other issues in other papers, topics, courses, etc. The main objective of all this thinking is to better understand auditory processing.
3. Be creative. Feel free to create pertinent demonstrations, organize a class debate, etc.
4. Don't feel as though you need to discuss each article in “linear” format (i.e., going straight through one and moving onto another). Try to integrate across *ideas*. What are the common themes? What seem to be the tough questions regarding this subject? What means might we use to try to answer these questions?
5. Your job as discussant is to raise the key issues and help focus the discussion on what you think are the main points to be made about the key issues. However, these main points need not primarily come from you. If things go well, others in the seminar will have generated similar points as well as additional points that you probably didn't think of. Give others every opportunity to contribute to these discussions. It is better (from an instructional point of view) if an important point emerges

from a discussion as opposed to being stated. Feel free to re-state or summarize important points as they emerge, or to make them yourself if they don't emerge.

6. If there are technical questions or issues that you want to raise, go ahead. If there are problems or limitations in the paper, you can raise them. However, don't play "find the flaw" with the papers.
7. Keep summarization to a minimum. You should assume that all members of the seminar have conscientiously done the readings.
8. If you want to make slides to make some point, you can use the projector that is in the room. If you have computer materials to project, you must email them to me before the start of the class period.
9. If you feel that you need some help structuring a discussion, contact me early in the process (i.e., don't wait until Sunday night!)

There is an extensive, rich scientific literature on each of the weekly topics we will discuss. The papers you are assigned to read were chosen from these literatures to pull together some of the important methods, concepts, theoretical arguments, and empirical data regarding psycholinguistic research. Consider this in reading these assignments. As you read the papers, try to pull together the ideas they present and consider them as a whole. Do the arguments presented in the articles conflict? Are they complementary? What central issues do they address? How do they relate to the "big picture"? How do the data relate to what we have discussed in other sections?

### **Reappraisal of Grades**

A student who feels that a piece of graded term work (e.g., term paper, essay, test) has been unfairly graded, may have the work re-graded as follows. The student shall discuss the work with the instructor within 15 days of being notified about the mark or of the item's return to the class. If not satisfied, the student shall immediately take the matter to the Head of the department offering the course, who will arrange for a reassessment of the work within the next 15 days. The reappraisal of term work may cause the grade to be raised, lowered, or to remain the same. If the student is not satisfied with the decision and wishes to appeal, the student shall address a letter of appeal to the Dean of the faculty offering the course within 15 days of the unfavourable decision. In the letter, the student must clearly and fully state the decision being appealed, the grounds for appeal, and the remedies being sought, along with any special circumstances that warrant an appeal of the reappraisal. The student should include as much written documentation as possible.

### **Absence From A Test/Exam**

Makeup tests/exams are NOT an option without an official University medical excuse (see the University Calendar). A completed Physician/Counselor Statement will be required to confirm absence from a test/exam for health reasons; the student will be required to pay any cost associated with this Statement. Students who miss a test/exam have 48 hours to contact the instructor and to schedule a makeup test/exam. Students who do not schedule a makeup test/exam with the instructor within this 48-hour period forfeit the right to a makeup test/exam. At the instructor's discretion, a makeup test/exam may differ significantly (in form and/or content) from a regularly scheduled test/exam. Except in extenuating circumstances (documented by an official University medical excuse), a makeup test/exam must be written within 2 weeks of the missed test/exam.

### **Important Dates**

The last day to drop this course with no "W" notation and **still receive a tuition fee refund** is **Jan 21<sup>st</sup>, 2011**. Last day for registration/change of registration is **Jan 24<sup>th</sup>, 2011**. The last day to withdraw from this course is **Apr 15<sup>th</sup>, 2011**.

## GENERAL COURSE/UNIVERSITY INFORMATION FOR ALL STUDENTS

### **LINGUISTICS STUDENT ADVISING**

For any questions regarding the linguistics major or minor, the organization of your program, or the selection of courses, you can see the linguistics **undergraduate advisor**:

Dr. Robert Murray	SS 824	403-220-8109	<a href="mailto:ling.undergrad@ucalgary.ca">ling.undergrad@ucalgary.ca</a>
Dr. Steve Winters	SS 814	403-220-7230	<a href="mailto:ling.undergrad@ucalgary.ca">ling.undergrad@ucalgary.ca</a>

### **FACULTY of ARTS PROGRAM ADVISING and STUDENT INFORMATION**

Have a question, but not sure where to start? The new Faculty of Arts Program Information Centre (PIC) is your information resource for everything in Arts! Drop in at SS110, call us at 403-220-3580 or email us at [artsads@ucalgary.ca](mailto:artsads@ucalgary.ca). You can also visit the Faculty of Arts website at <http://arts.ucalgary.ca/undergraduate> which has detailed information on common academic concerns.

For program planning and advice, contact the Student Success Centre (formerly the Undergraduate programs Office) at (403) 220-5881 or visit us at the 4<sup>th</sup> Floor of MacEwan Student Centre.

For registration (add/drop/swap), paying fees and assistance with your Student Centre, contact Enrolment Services at (403) 210-ROCK [7625] or visit us in the MacKimmie Library Block.

### **ACADEMIC ACCOMMODATION**

It is the student's responsibility to request academic accommodations. If you are a student with a documented disability who may require academic accommodation and have not registered with the Disability Resource Centre, please contact their office at 220-8237. Students who have not registered with the Disability Resource Centre are not eligible for formal academic accommodation. You are also required to discuss your needs with your instructor no later than fourteen (14) days after the start of this course.

### **FREEDOM OF INFORMATION AND PRIVACY ACT (FOIP)**

The Freedom of Information and Protection of Privacy Act was enacted by the Alberta Legislature on June 1, 1994. The Act is intended first of all to allow any person the right of access to the records in the custody and under the control of a public body although this right is subject to limited and specific exceptions. The Act also includes a strong right to privacy component, allowing individuals to control the manner in which a public body collects personal information, to control the use that a public body may make of the information, and to control the disclosure of that information by a public body. It also allows individuals the right of access to personal information about themselves held by a public body and the right to request corrections to that information.

For more information on FOIP, please visit: <http://www.ucalgary.ca/secretariat/privacy>  
Or contact Jo-Anne Munn Gafuik at (403) 220-3602 or by email: [munnngafu@ucalgary.ca](mailto:munnngafu@ucalgary.ca)

### **PLAGIARISM AND ACADEMIC MISCONDUCT**

Plagiarism involves submitting or presenting work in a course as if it were the student's own work done expressly for that particular course, when, in fact, it is not. Most commonly plagiarism exists when:

1. the work submitted or presented was done, in whole or in part, by an individual other than the one submitting or presenting the work (this includes having another impersonate the student or otherwise substituting the work of another for one's own in an examination or test),
2. parts of the work are taken from another source without reference to the original author,
3. the whole work (e.g. an essay) is copied from another source, and/or
4. a student submits or presents work in one course which has also been submitted in another course (although it may be completely original with that student) without the knowledge of or prior agreement of the instructor involved.



While it is recognized that scholarly work often involves reference to the ideas, data and conclusions of other scholars, intellectual honesty requires that such references be explicitly and clearly noted. Students are encouraged to work together in preparing homework assignments. However, unless noted otherwise in writing, students must write up their own answers for submission of the assignment. Failure to do so constitutes plagiarism.

Plagiarism is an extremely serious academic offence. Possible penalties for plagiarism include; failing the assignment, failing the course, disciplinary probation, suspension, or expulsion. Any student who voluntarily and consciously aids another student in the commission of plagiarism is also guilty of academic misconduct.

For more information on academic misconduct and related UofC regulations please consult the Student Misconduct web pages in the on-line University Calendar. These can be found at <http://www.ucalgary.ca/pubs/calendar/current/k.html>

### **EMERGENCY EVACUATION / ASSEMBLY POINTS**

The University of Calgary is committed to creating a safe and healthy living and learning environment. The health and safety of our employees, students and the general public are the highest priority of the University of Calgary's Emergency Management Program. During times of emergency, Assembly Points have been identified across campus. These areas have been selected as they are large enough to hold a significant number of people and will provide an evacuated population access to washroom facilities and protection from the elements. Assembly points are also designed to establish a location for information updates:

- from the emergency responders to the evacuees; and
- from the evacuated population to the emergency responders.

**Please familiarize yourself with the Emergency Assembly Points listed here:**

<http://www.ucalgary.ca/emergencyplan/assemblypoints>

**And the Emergency Instructions listed here:** <http://www.ucalgary.ca/emergencyplan/node/28>

### **SAFE WALK INFORMATION**

Twenty four hours a day and seven days a week Safewalk volunteers walk people safely to their destination on campus. This service is free and available to students, staff and campus visitors.

**Requesting Safewalk volunteers to walk with you is easy!**

- Call 403-220-5333 (24 hours a day/seven days a week, 365 days a year)
- Use the Help Phones (they are not just for emergencies)
- Approach an on-duty Safewalker and request a walk

**For more information** call the Safewalk office at 403-220-4750 or email [safewalk@ucalgary.ca](mailto:safewalk@ucalgary.ca).

### **STUDENT REPRESENTATIVE INFORMATION**

The Students' Union in partnership with the University of Calgary and the Graduate Students' Association (GSA) offers students a key advocacy resource to assist in addressing concerns and issues they encounter at the university with the Office of the Student Ombuds.

Students in undergraduate programs, please contact the Student's Union:

<http://www.su.ucalgary.ca/home/contact.html>

Students in graduate programs, please contact the GSA: <http://www.ucalgary.ca/gsa/>

Student Ombudsman: <http://www.su.ucalgary.ca/services/student-services/student-rights.html>