COURSE OVERVIEW
What is the structure of early human experience and how do regularities in what babies see, hear and do matter for the developing system? Recent innovations in wearable technology (e.g., child-friendly head cameras and audio recorders) and analytics are making it possible to capture some basic statistical facts about the everyday experiences of young children. In this seminar, we will survey classic ideas about the role of the environment in human development as well as recent empirical discoveries about regularities in language and vision that are available to infants and toddlers. As we grapple with questions about how to capture and characterize the experienced structure, we will draw inspiration from psychology, linguistics, and computer science. Our larger goal will be to think together about how detailed measures of the way that experiences repeat, change and accrue over time provide mechanistic insight into how people build and use knowledge.

COURSE MATERIALS
All materials will be provided as PDF files on our Blackboard site.

INSTRUCTION PHILOSOPHY
This is a graduate-level seminar and you are all professional research psychologists. I expect you to treat this collegial seminar as you would any professional endeavor -- prepare, engage, and deliver. Throughout the course, you should be engaging with the material and using class meetings as opportunities to develop and refine your thinking with colleagues. Your efforts will help you build skills in critical reading, discussing, and implementing next steps in research that matters to you. I expect that you are excited to grapple with the content and plan to make the most of this opportunity to broaden and deepen your research expertise and skills. Welcome.

EXPECTATIONS & GRADING
Your job is to do the reading, prepare for and participate in class discussions, get involved in the material and hone your research design skills. If you are taking this course for one credit, your grade will be based on in-class participation. If you are taking this course for three credits, your grade will be based on in-class participation and writing a research proposal that matters to you.

Readings. Expect to dedicate considerable time outside of class to the readings -- it will be both demanding and rewarding. You are expected to complete the assigned readings before class and to take an active role in the class. Your best bet is to grapple with the issues presented in the readings before and during class.

Research proposal (applies only to students earning 3 credits). You will write a research proposal about a topic that matters to you. You will propose original research. The goal is for you to leave with a top-notch proposal that will be maximally useful to your graduate career. We will discuss specific guidelines and expectations together. Please talk to me early in the quarter to develop a plan.
Participation. As a professional research psychologist, you engage in intellectual discussion and debate with colleagues. This class will help you practice and improve these skills. You are expected to attend class and participate in class discussions. For each class, your participation (plus/minus) will be noted.

To earn an "A" for participation, you must earn a "plus" in at least 8 class sessions. To earn a "Pass" for participation, you must earn a "plus" in at least 6 class sessions.

Your best bet is to attend every class and contribute to the discussions. On Blackboard, you will be able to see the "plus/minus" that you earn for each class. Please note that neither of the following things automatically earns you a "plus": showing up, opening your mouth. You must thoughtfully engage with the material. One strategy that will help you prepare to fully participate in discussions with your colleagues is to write down three questions based on the reading(s) that you'd like to discuss.

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<thead>
<tr>
<th>No. Plus earned (of 9 sessions)</th>
<th>participation grade</th>
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<tr>
<td>8</td>
<td>A [100]</td>
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<td>F [50]</td>
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**FINAL LETTER GRADE**

To earn 1 credit, your final letter grade will be your participation grade.

To earn 3 credits, your final letter grade will be:

- In-class participation 85%
- Research proposal 15%

FAQ

**What if I miss a class?**

We have nine scheduled class meetings. You decide how to best earn the number of "plus" participation marks for the grade that you’d like. No questions asked.

If you have a professional scheduling conflict (e.g., a conference to attend) and you’d like to earn participation for the class session, tell Dr. Fausey at least one week in advance and you can agree on a written assignment. With the exception of extreme and unforeseen circumstances, contacting Dr. Fausey on the day of (or after) a missed class will be considered an unexcused absence and will result in no earned participation. Each class session is designed with you in mind. Your best strategy is to show up and reap the benefits.

**What if I turn in an assignment late?**

If you submit an assignment after its due date, your grade on the assignment will be reduced by 50%. This is true whether you submit your assignment 1, 2, 3, 4, or 5 days late. After 5 days, late work will no longer be accepted without some documented medical or family emergency. Your best strategy is to submit assignments on time.

**Do you grade on a curve? Offer extra credit?**

No. I do not grade on a curve. No, I do not offer extra credit. Your best strategy is to focus your energy on doing your best on all of your work.
ACADEMIC HONESTY
The short version: Don't cheat. Don't plagiarize. If you are unsure, please ask me.

As a member of the university community you are expected to be honest and forthright in all of your academic endeavors. To falsify the results of one's research, to present the words, ideas, data, or work of another as one's own, or to cheat on an examination corrupts the essential process by which knowledge is advanced.

All work submitted in this course must be your own and produced exclusively for this course. The use of sources (ideas, quotations, paraphrases) must be properly acknowledged and documented.

One form of academic misconduct is cheating. Among other definitions, it is considered cheating if you lie to Dr. Fausey about a class absence or absence/delay relating to an assignment.

Another form of academic misconduct is plagiarism, or using someone else’s ideas and words without appropriate citation on a written assignment. Do not copy from Wikipedia, other students’ papers, scholarly articles, websites, and a host of other sources. In this course, all submitted work will be checked by SafeAssign. Do not attempt plagiarism because you will be caught. Plagiarism is academic misconduct and cases of plagiarism will be treated as such.

Please note that it is mandatory for instructors to report suspected academic misconduct to the Office of Student Conduct. For the consequences of academic dishonesty, refer to the Schedule of Classes published quarterly. Violations will be taken seriously and are noted on student disciplinary records.

For more information regarding academic honesty and the student conduct code at the University of Oregon, visit the University’s Office of Student Life website at: http://studentlife.uoregon.edu/StudentConductandCommunityStandards/StudentConductCode/tabid/69/Default.aspx

STATEMENT FOR STUDENTS WITH DISABILITIES
The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring accommodation, please contact UO Accessible Education Center.

DISCLAIMER
This syllabus is an outline of the course and its policies, which may be changed for reasonable purposes during the semester at the instructor's discretion. You will be notified in class and/or via email if any changes are made to this syllabus and an updated syllabus will be provided on Blackboard.
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<tr>
<th>Date</th>
<th>Description</th>
<th>Main Reading(s)</th>
<th>Related Readings(s)</th>
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<tr>
<td>Oct 2</td>
<td><strong>Group Discussion</strong></td>
<td></td>
<td>Marcus &amp; Davis, 2014</td>
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<td></td>
<td>developmental change?</td>
<td>West &amp; King, 1987&lt;br&gt;Gottlieb, 1991</td>
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<td>Oct 30</td>
<td><strong>Structure captured from 1st-person recordings in the lab.</strong></td>
<td>Franchak et al., 2011</td>
<td>Fathin, Ren, &amp; Regh, 2011</td>
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<td>Kretch et al., 2014</td>
<td>Foulsham et al., 2011</td>
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<td>Smith, Yu, &amp; Pereira, 2011</td>
<td>Frank et al., 2013</td>
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<td>Yu &amp; Smith, 2013</td>
<td>Pinto, Cox, &amp; DiCarlo, 2008</td>
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<td>Pirsivash &amp; Ramanan, 2012</td>
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<td>Pereira et al., 2010</td>
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<td>Raudies et al., 2012</td>
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<td>Yoshida &amp; Smith, 2008</td>
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<td>Yu &amp; Smith, 2012</td>
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<td>Yurovsky et al., 2013</td>
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<td>Nov 6</td>
<td><strong>Structure captured from 1st-person recordings in the wild.</strong></td>
<td>Language &amp; Motor</td>
<td>Aslin, 2009</td>
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<td>Abney et al., 2014</td>
<td>Braddick &amp; Atkinson, 2011</td>
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<td>Weisleder &amp; Fernald, 2013</td>
<td>Sugden et al., 2014</td>
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<td>Nov 13</td>
<td><strong>How do we characterize the available structure?</strong></td>
<td><em>we will collectively decide which of these to make &quot;Main Readings&quot;, based on student interests</em></td>
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<td></td>
<td><strong>A multi-disciplinary challenge.</strong></td>
<td><strong>Categories/Concepts</strong></td>
<td>Language</td>
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<td>Griffiths &amp; Tenenbaum, 2006</td>
<td><em>many more!</em></td>
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<td>Tenenbaum et al., 2011</td>
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<td></td>
<td><strong>Vision</strong></td>
<td>Neurosciences</td>
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<td>Geisler 2008</td>
<td>Bullmore &amp; Sporns, 2009</td>
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<td>Greene, 2013</td>
<td>Byrge et al., 2014</td>
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<td>Simoncelli 2003</td>
<td>Hasson et al., 2012</td>
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<td>Ullman et al., 2012</td>
<td>Schapiro et al., 2013</td>
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<td>Cutting et al., 2010</td>
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<td>Wass &amp; Smith, 2014</td>
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<td></td>
<td><strong>Non-human</strong></td>
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<td>Blumberg et al., 2013</td>
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<td>Blumberg et al., 2014</td>
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<td>Takahashi et al., 2013</td>
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<td><strong>Physics</strong></td>
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<td>Barabasi, 2005</td>
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<td>Nov 20</td>
<td><strong>How do we characterize the available structure?</strong></td>
<td><strong>Overview (language)</strong></td>
<td>Barsalou et al., 1998</td>
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<td><strong>A multi-disciplinary challenge.</strong></td>
<td>Plantadosi 2014</td>
<td>Elio &amp; Anderson, 1984</td>
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<td><strong>Part 2. The curious case of Zipf.</strong></td>
<td><strong>Computer vision</strong></td>
<td>Navarro, 2013</td>
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<td>Salakhutdinov et al., 2011</td>
<td>Nosofsky, 1988</td>
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<td>Zhu et al., 2014</td>
<td>Oakes &amp; Spalding, 1997</td>
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<td><strong>Matters for learning</strong></td>
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<td>Casenhiser &amp; Goldberg, 2005</td>
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<td>Kurumada et al., 2013</td>
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<td>Main Reading(s)</td>
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| Dec 4 | **So you want to design a study. . .**  
Methodological & sampling issues in developmental “big data”.                                                                                      | Adolph & Robinson, 2011  
Smith et al., in press  
Tomasello & Stahl 2004  
TBA: perhaps one more                                                                 | Zeanah et al., 2003  
Databrary  
Wordbank  
CHILDES  
TBA: Other databases (computer vision, network science) |
| Dec 8 | **Finals week -- No Class Meeting**  
*unless everyone votes to celebrate with a final session!*                                                                                          |                                                                                                           |                                               |
Reading List

Note: One quarter is far too little time to cover every relevant and interesting paper on this course topic! I have included additional references for students who may be interested in learning more.

We will add to this list throughout the quarter! Everyone should contribute. Bring related papers to class, email the group, get everyone thinking. By the end of the quarter, this list should be even more interesting!

*Papers that are assigned for "main readings" are in blue bold with a star.


Databrary. http://databrary.org/


*Jayaraman, S., Fausey, C.M., & Smith, L.B. (submitted). The faces in infant-perspective scenes change over the first year of life.*


Lookit. https://lookit.mit.edu/


Ng, A. website: http://cs.stanford.edu/people/ang/


Wordbank. http://wordbank.stanford.edu/about


