# Department of Linguistics

## Independent Study/Directed Research Options for Undergraduates

## Spring 2020

University of Arizona

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**Professor: Thomas Bever**
**Email: tgb@u.arizona.edu**
*Projects and interests:*

Open to ANY PROJECT on the psychology or biology of language, including comprehension, production, acquisition, genetic issues, neurological organization.

**1)** Behavioral/Neurological processes in English, Chinese, Arabic and others.

**2)** Neurological functioning during normal language behavior (using our own EEG, and collaborating with other labs).

**3)** The nature of conscious experience.

**4)** Perception of depth in visual arrays.

In addition to working with Dr. Bever and graduate students, students can develop their own project…Often leading to an honors thesis, and/or to a conference presentation or publication.

**Professor: Andrew Carnie**
**Email: carnie@u.arizona.edu**
*Projects and interests:*

**1)** ANY PROJECT (of student's choice) on syntax, morphology, or semantics.

**Professor: Wilson de Lima Silva**
**Email: wdelimasilva@email.arizona.edu**
*Projects and interests:*

I'm interested in working with students who would like to engage in research (any topic) related to the Indigenous Languages of the Americas—especially Amazonian languages. Students work on transcription of Amazonian languages; compilation of comparative vocabulary for understanding language contact in Amazonia and historical linguistics; creating language materials (including digital storytelling videos) for Desano, Siriano, and Karapana (Tukanoan languages); and any other linguistic topic involving these languages. Let me know what your interest in linguistics is, and we will find you a cool project for you to work on!

**Professor: Sandiway Fong**
**Email: sandiway@ermail.arizona.edu**
*Projects and interests:*
**1)** Minimalist Program Implementation. Students can add examples to an existing theory that is implemented on a computer. Most of the examples are in English, but previously students have added examples in Arabic, Persian, Japanese, etc.
**2)** The Investigation of Deep Learning papers. Students can both create training and test examples to explore the capabilities of these new systems.
*Qualifications*: an introductory linguistics class, some knowledge of phrase structure or dependency syntax required.

**Professor: Amy Fountain**
**Email: avf@email.arizona.edu**
*Projects and interests:*

**1)** Language revitalization, documentation, and technology development for endangered or indigenous language communities.

**2)** Improving the teaching of Linguistics at the undergraduate level, creating and implementing teaching tools and studying the effectiveness of various kinds of instruction for students at different levels.

**3)** Student-directed projects in phonology, morphology, or sociolinguistics.

**Professor: Mike Hammond**
**Email: hammond@u.arizona.edu**
*Projects and interests:*

**1)** Welsh, Breton, Scottish Gaelic. Students can work on projects to do with phonology of these Celtic languages.

**2)** Poetic meter and language games. Projects to do with the phonological implications of poetry and language games.

**3)** Automatic speech recognition: Projects to do with developing speech technology.

**Professor: Simin Karimi**
**Email: karimi@u.arizona.edu**
*Projects and interests:*

Any topic in syntax, especially:

**1)** Focus and topic constructions and their realizations in different languages.

**2)** Complex predicate constructions: combination of a verb and another element to represent a simple verbal concept in various languages.

**3)** Verb-second phenomenon in Germanic languages.

**4)** Arbitrary control; obligatory and non-obligatory control

*Qualifications*: 201, and ideally 300 or 310.

**Professor: Cecile McKee**
**Email: mckee@email.arizona.edu**
*Projects and interests:*

I'm studying learning in what are called "informal" situations such as museums and festivals. If you have similar interests, we could design collaborative projects related to language development or informal science learning. I'm always interested in making new activities for public engagement related to the language sciences.

Qualifications:

If a project includes research with human subjects, relevant UA training will be required. If the subjects are children, lab-internal and museum-based training will be required.

**Professor:  Janet Nicol**
**Email:  nicol@u.arizona.edu**
*Projects and interests:*

**1)** Research on how people produce and understand language, focusing on second language learners and bilinguals.

**2)** Research on word learning by second language learners (both the mechanisms of and variables that optimize word learning).

How we do our research: We use three basic types of method.

(a) We have subjects read sentences and use a device that tracks their eye-movements, or records their brainwaves, while they are reading; (b) We have subjects listen to spoken instructions to click on pictures displayed on a computer monitor and track their eye-movements as they hear the spoken instructions; (c) We have subjects create sentences (which are tape-recorded and analyzed), or have them  read or listen to sentences and respond by pressing a computer key or making a judgment; (d) We teach people new words (pairing a new label with a picture) and then test them by having them label the picture.

**Professor:  Diane Ohala**
**Email:  ohalad@u.arizona.edu**
*Projects and interests:*

**1)** Work on the Welsh Language Acquisition Project. Students will work on transcribing and coding data from bilingual Welsh-English children attending Welsh-medium schools in Northern Wales. Knowledge of Welsh is not required (but a willingness to learn some is!). Familiarity with Praat (speech analysis software) is a plus.

**2)** Any project having to do with first, second, or atypical language development in children or adults, particularly phonological acquisition.

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**Frequently asked questions**

*What is the difference between independent study and directed research?*
Independent study can be at all levels (1-499), while directed research is only upper division (3-492a). Independent study is for a Pass/Fail grade, while directed research is for a regular letter grade. They are otherwise basically the same.

***How do I register for either one of those?***
1. Email the professor you would like to work with to express your interest and plan your studies/research.
2. Complete the Independent Study Proposal Form and have the professor sign it.
3. Take the completed and signed form to Stephanie Amado in COMM 104.

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**Professor:  Massimo Piattelli-Palmarini**
**Email:  massimo@u.arizona.edu**
*Projects and interests:*

**1)** BIOLOGICAL FOUNDATIONS OF LANGUAGE, in particular language pathologies (e.g., aphasia, dyslexia, Williams Syndrome, the case of "savants"), the genetics of language (in particular the gene FOXP2), neural correlates of language.

**2)** LANGUAGE EVOLUTION (especially non-adaptationist/non-functionalist approaches), aspects of syntax that cannot be explained by the use of language in communication, Minimalism and optimal solutions in biology.

**3)** DEEP FORMAL INVARIANTS OF LANGUAGE. Fibonacci numbers in syllables, prosody and syntax. The syntactic tree as the optimal solution to the problem of minimizing dependencies while allowing expansion. Scaling laws in evolution or brain structure and organization, with interesting consequences for language.

**4)** ATTITUDES DE SE (the syntax and semantics of referring to oneself, an inter-languages comparative analysis).

**5)** THEORIES OF REFERENCE: Is the semantics of natural languages purely "intentional"? (Entirely internal) (work by Noam Chomsky, Paul Pietrosky, James McGilvray). Or do linguistic expression

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**Professor:  Natasha Warner**
**Email:  nwarner@u.arizona.edu**
*Projects and interests:*

Work on speech production and perception (phonetics lab). How do we understand the speech we hear, even though casual speech often lacks the sounds of the words we think we're hearing? Students make acoustic measurements of natural and careful speech, or help with perception experiments to look at how listeners process reduced speech.

*Qualifications*: LING 314 preferred but not required.

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**Professor: Andy Wedel**
**Email: wedel@email.arizona.edu**
*Projects and interests:*

Work on the evolution of language sound systems over time, primarily using phonetic data from experiments and language corpora. Previous independent studies have involved learning to use various software packages to annotate and analyze experimental phonetic data.

*Qualifications:* No prior qualifications are required beyond responsibility and interest.

phonological acquisition.

**Professor: Ofelia Zepeda**
**Email: ofelia@u.arizona.edu**
*Projects and interests:*

Work on the Tohono O'odham language spoken in Arizona and northern Sonora, Mexico. I am interested in working on projects with students in any area of O'odham linguistics, language, literature and culture. My primary focus is on applied aspects of language research. My other area of study is in language revitalization and documentation, and I would be interested in working with students wanting to learn more about revitalization through the American Indian Language Development Institute (http://aildi.arizona.edu/), and to work on projects within AILDI as well.  I welcome the opportunity to work with students to develop research projects in any of the mentioned areas.