

LING 686-003 – Computational Typology – Spring 2020

Course organization

Where? Innovation Hall 233

When? T 7:20-10 pm

Instructor: Géraldine Walther

Email: gwalthe@gmu.edu **!! without** the last letter of my surname **!!**

Office: Robinson Hall B 470B (in the back of the Computational Linguistics Lab)

Office hours: Th 10:30 am -12:30 pm, and by appointment

Prerequisites

LING 306 or 520 (Introduction to Linguistics) at GMU, or equivalent.

Course Content

1. Introduction to Linguistic Typology
2. Reading and comparing grammars
3. Introduction to Linguistic Resource Development
4. Quantitative investigations

Objectives

Linguistic variation and variability:

1. General introduction to variation across linguistic phenomena
2. Understanding of the range of typological approaches (questions, methodologies, solution spaces, current state of understanding)
3. In depth comparative study of descriptive grammars
4. Exploration of typological datasets

Computational linguistics and its application to typology:

5. General introduction to Computational Linguistics (questions, methods, challenges)
6. Discovery and usage of existing datasets and data-bases
7. Grammar implementation and introduction to linguistic resource development
8. Application of computational techniques to solve typological questions

Required readings

Required readings from primary literature is indicated in the "Readings" column from the course schedule below and subject to updates throughout the term. Mandatory readings are indicated bold faced. Recommended readings are indicated in standard font.

Graded assignments

In class grammar presentations (UG: 20%, MA: 10%) Presentation of individual topics described in the grammar (see course schedule for details).

Mini-conference 1: grammar (25%) Presentation on a special topic described in the grammar that is of typological relevance.

Mini-conference 2: quantitative study (25%) Presentation on a quantitative investigation that is of typological relevance.

Final paper based on quantitative study (UG: 30%, MA 40%) Final paper based on results from quantitative investigation.

Grading criteria

A: Excellent approach of the problem, excellent understanding of the material, interesting results; careful and clear presentation of results following guidelines

B: Good attempt to solve the problem, but some remaining misunderstandings that might affect results; careful and clear presentation of results following guidelines

C: Serious attempt to solve the problem and to present results following guidelines, but major remaining misunderstandings and missing material

F: No serious attempt to solve the problem or to follow guidelines, or no submitted work

Course schedule (provisional)

Week	Date	Topic	Readings	Assignments
1	T 01/21	Intro: What is typology? Computational Typology?		
2	T 01/28	Linguistic Universals	Greenberg (1960, 1963) ; Dryer (1998); Evans and Levinson (2009)	Grammar: - Language profile - Grammar structure
3	T 02/04	Functional approaches	Saussure (1916); Givón (1995, preface + chapter 3) ; Beckner <i>et al.</i> (2009); Blasi et al. (2016)	Grammar: - Sound system
4	T 02/11	Formal approaches and fixed measuring points Canonical typology Alexina	Corbett (2003, 2007) ; Brown et al. (2012); Brown & Hippisley (2012); Walther (2011, 2013, 2017); Sagot & Walther (2011, 2013)	Grammar: - Word classes - General morphological profile
5	T 02/18	Morphological databases	Bickel & Nichols (2002); Dryer & Haspelmath (2011); Maddieson et al. (2011)	Grammar: - Nominal morphology
6	T 02/25	Multivariate typology	Bickel (2010, 2015)	Grammar: - Verbal morphology
7	T 03/03	Alignment patterns across languages	Jacques & Antonov 2014	Grammar: - Word-order and word-order variation
8	T 03/10	!! Spring break !!		
9	T 03/17	Natural Typology Cognitive approaches	Mayerthaler (1981); Wurzel (1984); Dressler (2000); Stoll & Bickel(2013); Stoll et al. (2017); Moran et al. (2018)	Grammar: - Alignment and/or valence alternations
10	T 03/24	Discriminative approaches to language diversity	Ramscar et al. (2013); Blevins et al. (2017) ; Dye et al. (2017, 2018)	Grammar: - Complex clauses - Coordination...
11	T 03/31	Mini-conference 1: grammar	Presentation of special topic related to language and its typological relevance	
12	T 04/07	System typology: languages as dynamic adaptive systems	Gahl (2008); Drager (2011; Plag et al. (2015); Baayen et al. (2003); Kemps et al. (2005); Wasow et al. (2011); Pellegrino et al. (2011)	Quantitative study: - Presentation of proposed study and chosen dataset(s)

13	T 04/14	Language diversity and population size	Trudgill (1989, 2001); Dale & Lupyán (2012); Ackerman & Malouf (2013)	Quantitative study: - Presentation of data properties - Presentation of methodology
14	T 04/21	Typology of broader communication systems	Townsend et al. (2017, 2018) ; Everett et al. 2015	Quantitative study: - Report on methodology - Presentation of first results
15	T 04/28	Mini-conference 2: quantitative study	Presentation of study including final results and discussion of their typological relevance	
E	T 05/12	Final paper due		

General notes and information

Resources: All course policies, calendars, assignments, and readings from outside the textbooks will be posted on our Blackboard site. Let me know if you have trouble accessing the site!

Course schedule: The course schedule above is likely to be adjusted over the term. A revised version of the syllabus will be available on Blackboard. The most recent online copy of the syllabus will always supersede previous versions, including the one handed out on the first day.

Computers and electronic devices: Non-class-related use of computers or other electronic devices should be avoided.

Attendance: Class attendance is not optional. (Pop) quizzes will be conducted in class, some of them graded. Please let me know in advance if you are unable to attend a session.

Academic Integrity: Students are reminded of their obligation to adhere to the GMU Honor Code. All class work should clearly acknowledge the source of ideas and materials, and direct quotations must be explicitly identified and properly cited. If you are in any doubt, please contact me before submitting your work. The Pledge and full text of the Honor Code are available at: <http://oai.gmu.edu/wp-content/uploads/2019/08/George-Mason-University-Honor-Code-2019-2020-final.pdf>

Disability Services: GMU is committed to providing equitable access to students with disabilities. Students who require accommodations should register with Disability Services <<https://ds.gmu.edu/>> as early as possible, since accommodations/grade adjustments cannot be made retroactively.

Diversity, inclusion, and safety: GMU is committed to providing students with a safe and respectful environment. Visit <https://diversity.gmu.edu> for more information. Feel free to reach out if you have questions or feel need for support.